

# **Developing and Sustaining Teachers' Professional Learning: A Case Study of Collaborative Professional Development.**

**Fiona King**

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## **Abstract**

Despite economic difficulties, the emphasis on and investment in teacher professional development (PD) across the world continues, as countries strive to improve educational standards to compete in a globalised knowledge economy. However, researchers have little evidence of its impact on teachers' professional practice. While it is acknowledged that PD needs to be assessed and evaluated, there is little guidance as to how this might be achieved. Much focus is on short-term impact, with longer-term impact often ignored despite sustainability of practices being highlighted as critical for school improvement.

This study set out to explore the impact of a collaborative PD initiative on teachers' professional practice in five urban disadvantaged primary schools in the Republic of Ireland. A qualitative approach was used to explore short-term and longer-term impact, along with factors that helped or hindered the development and sustainability of the PD practice. The literature review revealed gaps in existing frameworks for evaluation, resulting in the development of a 'Professional Development Impact Evaluation Framework' which is presented in the thesis. It demonstrates how the framework was both developed from extant literature and critiqued through application, and discusses its potential for evaluating the impact of a range of PD activities and answering the call for accountability in these straitened times.

Findings revealed a PD legacy that resulted not only in practices being sustained, but demonstrating a PD multiplier, where the impact of the collaborative PD initiative extended beyond the initiative itself to include many changes, even at a cultural level. Given the significance of the PD multiplier, this study suggests that PD facilitators support such cultural changes on a larger scale in schools. A significant feature of change is the teacher as a change-agent, and this study proposes a number of typologies of teacher engagement which may have some implications for teacher PD. Impacting on these typologies were three key elements that contributed to

teachers' professional learning and which reflect a developing notion of agentic teacher professionalism: bottom-up approaches with top-down support; autonomy and professional trust; and collaborative practices and collective responsibility.

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## Glossary of Terms

**BERA:** British Educational Research Association: <http://www.bera.ac.uk>.

**Co-teaching** is an umbrella term for all collaborative models of teaching and learning.

**Collaborative PD** is defined as having ‘specific plans to encourage and enable shared learning and support between *at least two* teacher colleagues on a sustained basis’ (Cordingley *et al.*, 2004: 2). In this study it refers to the team teaching model of intervention which was used.

**CPD:** Continuing professional development.

**CUREE:** Centre for the use of research and evidence in education: <http://www.curee.co.uk/>.

**DEIS:** Delivering Equality of Opportunity in Schools. Schools may be classified as disadvantaged by the Social Inclusion Section of the DES using the DEIS Banding categorisation.

**DES:** Department of Education and Skills: <http://www.education.ie>.

**ESRC:** Economic and Social Research Council: <http://www.esrc.ac.uk/>.

**INTO:** Irish National Teachers’ Organisation – primary teachers’ union: <http://www.into.ie>.

**L & N:** Literacy and Numeracy.

**Learning Support Teacher:** provides supplementary teaching for pupils with high-incidence disabilities.

**LoU:** Levels of use. Hall and Hord (1987) assess teachers’ levels of use (LoU) and understanding of an initiative or practice. See Table 2.3.

**Mainstream class** is a class in a regular primary or secondary school.

**MICRA-T:** Mary Immaculate College Reading Attainment Test – a standardised primary reading test.

**NCCA:** National Council for Curriculum and Assessment: <http://www.ncca.ie>.

**NCSE:** The National Council for Special Education: <http://www.ncse.ie>.

**NQT:** Newly qualified teacher.

**NSW:** New South Wales.

**OECD:** Organisation for Economic Co-operation and Development: <http://www.oecd.org>.

**PCK:** Pedagogic content knowledge – ‘knowledge of ways of representing specific subject matter for learners and an understanding of difficulties they may face because of their existing conceptions’ (Smith, 2007: 378).

**PD:** Professional Development – ‘processes, activities and experiences that provide opportunities to extend teacher professional learning’ (NSW, 2007: 3).

**PDST:** Professional Development Service for Teachers: <http://www.pdst.ie>.

**PT:** Peer Tutoring – a method of engaging in one-to-one teaching with pupils working in pairs.

**QSR:** Research software developer of NVivo 8.

**RAI:** Reading Association of Ireland: <http://www.reading.ie/>.

**ROI:** Republic of Ireland.

**Resource Teacher:** provides supplementary teaching for pupils with low-incidence special educational needs.

**SEN:** Special Educational Needs – ‘the educational needs of students who have a disability and the educational needs of exceptionally able students’ (Education Act 1998, 2(e)).

**SERC:** Report of the Special Education Review Committee, Government of Ireland, 1993.

**Supplementary** teaching is extra teaching a pupil receives from another teacher, e.g., learning support or resource teacher.

**Support teacher** is a teacher who provides additional support to pupils with SEN and learning difficulties. This may be a learning support or resource teacher.

**TCI:** Teaching Council of Ireland: <http://www.teachingcouncil.ie/>.

**TDA:** Training and Development Agency for Schools.

**Team teaching** is where teachers with varying expertise work and learn together to help meet the needs of their pupils. It consists of two or more teachers working together to plan, implement and evaluate a learning programme. Team teaching is used synonymously with cooperative learning, collaborative teaching and co-teaching, the last of which is considered the umbrella term for all collaborative models of teaching (Murawski and Swanson, 2001; Welch, 2000).

**Tutee** is a person who learns from a tutor.

**Tutor** is a person who provides tutoring to another person.

**UK:** United Kingdom.

**US:** United States.

**Withdrawal** teaching involves withdrawing or ‘pulling out’ pupils from their mainstream class to work with them on a one-to-one basis or in a small group.

**WSE:** Whole School Evaluation – a process carried out by the DES Inspectorate.

## Chapter 1 Introduction

*'It's not just about the teaching – it's the child's learning.'*

(Muriel, School Principal)

This thesis is set in the context of governments across the world continuing to invest in teacher professional development (PD) in a bid to enhance educational standards. While considerable amounts of money have been spent on teacher PD, little evidence exists of its effect on pupils' outcomes (O'Sullivan, 2011; King, 2011). The link between teacher PD and pupils' learning is far from automatic (Cumming, 2002). Teachers need support to build their capacity to enhance pupil outcomes (King, 2011). Adding to the problem are the contested definitions of teacher PD, with some viewing it as 'input' or courses and others viewing it as the development of expertise leading to improved pupil outcomes (Bubb and Earley, 2008; Barak *et al.*, 2010). Intrinsic to this is the need to articulate what it means to be 'professional', another contested concept. This comment from one of the teachers interviewed for this research highlights its importance:

It's one point to be good in your classroom, being a good teacher, but there's also a professional aspect. Is it enough to say it's professional to do your job well in class to be a good professional, do you need to add to your knowledge base, do you need to improve on your skill and practice, do you need to reflect?

(Pat, Class Teacher (CT))

This first chapter sets the scene for addressing these issues by providing the rationale and aims of the research before leading on to the research questions that form the focus of this study. The concept of teachers' professional learning is then explored and located within the wider socio-political debate of teacher professionalism. The chapter then discusses the underlying philosophical approach that has informed the research, which includes a personal reflexive account clarifying my position within the study.

## Rationale

A large volume of educational research exists relating to changes in our society, the diversity of our classrooms and legislative changes (Teaching Council of Ireland (TCI), 2010). Some argue that 'Education systems and schools are out of step with society' and teachers need to 'move on' with these changes (Systma, 2006: 2). Central to this 'move' are teacher expertise and PD, which aim to enhance pupil outcomes (Earley and Porritt, 2010) and foster school improvement (Syed, 2008), although establishing this link is particularly challenging (Kratochwill *et al.*, 2007; King, 2011) and not much in evidence (Pedder *et al.*, 2008). A critical component for school improvement is sustainability of new practices, and yet very little evidence is available on whether schools sustain and embed such changes (Baker *et al.*, 2004; King, 2011). Much focus is on short-term impact, with long-term impact often ignored (Ofsted, 2006; Timperley, 2008). Indeed,

Innovation after innovation has been introduced into school after school, but the overwhelming number of them disappear without a fingerprint.

(Cuban, 1988: 86)

Ofsted (2006) reported a lack of effective evaluation as the weakest link in the PD chain. Therefore the focus of this research was to formally evaluate a PD initiative, which involved the collaborative use of an evidence-based pedagogical intervention for literacy, to see if it had led to a sustained use of practices and enhanced teacher learning. The PD initiative involved a classroom teacher, Special Educational Needs (SEN) teacher and principal from each of the five schools engaging in collaborative PD over a period of ten weeks, with the aim of improving pupils' reading outcomes. It was first implemented over three years ago, and this research sought to assess how the initiative is currently being used in the schools, and teachers' perceptions of the change process. The research looked at the processes that enabled and inhibited such development, as few studies incorporate detail about PD outcomes and processes (Cordingley *et al.*, 2008). However, finding a suitable framework for such evaluation was problematic. Therefore, an

evaluation framework based on the significant works of such authors as Guskey (2002) and Bubb and Earley (2010) was developed. This 'Professional Development Impact Evaluation Framework' was critiqued for its suitability for such evaluation as part of this study.

## **Research aims and questions**

This thesis explored developing and sustaining teachers' professional learning through a collaborative PD initiative, and it sought to:

- explore the impact of this collaborative PD initiative on teachers' learning in five urban disadvantaged schools in Ireland;
- focus on short-term and long-term impact in an effort to fill the research gap relating to sustainability of new practices in schools;
- look at the factors that helped or hindered the development and sustainability of PD practices.

The research encompassed a qualitative study drawing on interviews with 20 teachers involved in the initiative. It addressed the following issues as outlined in the research questions.

1. Short-term implementation: How did the collaborative PD initiative develop in each of the five schools?
  - Why did the school get involved in the initiative?
  - Who was involved?
2. Short-term impact: How do teachers describe the impact of the collaborative PD at the end of its initial implementation?
  - On a personal level
  - On a professional level
  - On pupils' outcomes
  - On a collective level.
3. What were the key factors that shaped the changes in teachers' professional practice and learning during the ten-week period?

- What factors had a positive impact on the implementation of the initiative?
  - What factors had a negative impact on the implementation of the initiative?
4. Longer-term development: What has happened since?
- To what extent have teachers maintained their changes in practice and learning over time?
  - How have teachers maintained these over time?
5. Longer-term impact: How do teachers describe the impact of the PD initiative?
- On a personal level
  - On a professional level
  - On pupils' outcomes
  - On a collective level.
6. What were the key factors that shaped the long-term development and sustainability of teachers' professional practice and learning?
- What factors had a positive impact on the long-term development and sustainability of teachers' professional practice and learning?
  - What factors had a negative impact on the long-term development and sustainability of teachers' professional practice and learning?

## **Research Context**

This work focused on a specific initiative undertaken with teachers from five urban disadvantaged primary schools in the Republic of Ireland (ROI) in 2007–08. The schools were classified as disadvantaged by the Social Inclusion section of the Department of Education and Skills (DES) using the DEIS (Delivering Equality of Opportunity in Schools) (2005a) Banding categorisation. These schools were chosen from nineteen that applied to an advertisement in the Irish National Teachers' Organisation (INTO) (teacher union) magazine, inviting schools to participate in a literacy initiative in which they would be funded and supported by the INTO. Funding consisted of materials, the input of a project facilitator, and time off for a training day. Additional support was provided via email, telephone and two school visits

during the ten-week implementation period. The evidence-based initiative involved pupils in third class (average age of nine years), where a SEN teacher and a classroom teacher worked collaboratively within the mainstream classroom to implement Peer Tutoring (PT) (Topping, 1988; Butler, 1999) for literacy for thirty minutes a day, four days a week, over a ten-week period (two weeks training with the children and eight weeks implementing the practice). Peer Tutoring in this initiative involved pupils reading in mixed-ability pairs in the role of tutor and tutee with the aim of enhancing their reading accuracy and fluency (King and Gilliland, 2009; King, 2011).

A case-study approach was used in this research to facilitate a flexible approach for looking at a number of related cases (Robson, 2002). Findings from the initiative in 2007–08 indicated an overall average gain of 12.7 months in reading accuracy for pupils (n=116) as attained on a standardised reading test, and ‘high levels of pupils’ enjoyment and teachers’ willingness to sustain the practice’ (King and Gilliland, 2009; King, 2011: 150). This study explored teachers’ perceptions of being involved in that collaborative PD initiative in 2007–08, to identify how it impacted upon their teaching and learning and to see if it was sustained over time, as sustainability of practices are linked to school improvement. Therefore, the sampling for this study involved the participants from the same five schools originally involved in the PD initiative. It was not possible to interview some of the staff, as they had retired or moved on. However, the flexible nature of case study research facilitated interviews to be held with people in those schools who have since engaged with the practice (King, 2011).

It is important to situate this research within the global context to further an understanding of the challenges that begin at a global level and influence what happens at local level (Bottery, 2006).

## **Teacher professional learning: socio-political context**

The idea of the teacher as a 'professional' is another challenging concept in the literature and one which needs to be explored. Some posit that being a professional is aligned with belonging to an occupational group that claims to have specialist knowledge and the ability and trustworthiness to apply it to contribute to an improved service for society (Forde *et al.*, 2009; O'Sullivan, 2011; King, 2011). However, this concept of professionalism is increasingly being challenged by the emergence of a 'new professionalism' agenda (Guskey, 1996; Slater, 2004; Stevenson, 2010) which often emphasises 'professional standards' and external quantitative accountability (Ball, 2003; Purdon, 2004; Bottery, 2006; Sahlberg, 2007).

The level of trust has moved from what Bottery (2006: 20) terms a foundation based on 'a perception of integrity' to one based on job competence. This accountability agenda is underpinned in Ireland by The Education Act (1998, Section 5), which holds principals and teachers to account, resulting in what Sugrue (2011: 61) calls the emergence of "performativity' as a technology of control'. This can be seen in Irish schools through the Whole School Evaluation (WSE) process carried out by the DES Inspectorate, with findings published on the DES website. However, not all schools perceive the WSE process as a form of bureaucratic and political accountability (Mathews, 2010). Mathews (2010), a senior inspector with the DES, argues that it may be considered by some as affirming good practice, thus motivating schools to further improvement, thus possibly reflecting the WSE process as answering a call for accountability but in a more supportive way. However, further evidence of performativity can be seen with the introduction of mandatory, non-contact extra hours for teachers, as part of the recent 'Croke Park Agreement' (Department of Public Expenditure and Reform, 2010), which is the name given to recent public sector negotiations that emphasise increased performance management.

Performativity and accountability measures like these are present in a climate of distrust (Sachs, 2006) and may be seen as further evidence of

emerging managerialism in Ireland. Additional competing policy agendas nationally and internationally, such as teacher autonomy and standardisation (Linsky and Lawrence, 2011; Sugrue, 2011), also impact on teachers' professional learning experiences. While much rhetoric exists promoting teacher autonomy, the reality internationally is somewhat more reflective of standardisation of practices, with teachers afraid to move 'outside the box', thus limiting creativity and innovation (Crawford, 2009) that is essential to meet individual pupils' needs (Bolam *et al.*, 2005) and to develop the necessary skills for a knowledge-based economy (Bottery, 2006). This fear of risk-taking was also raised by Mathews (2010), who claimed it resulted from fear of the inspector or lack of being able to justify what is being implemented.

This new professionalism (Friend and Cook, 1990; Guskey, 1996; Slater, 2004), which Kennedy (2007: 99) described as 'managerial professionalism', values effectiveness, efficiency and compliance with policy, which is reflective of private sector values (Bottery, 2006), resulting in increased accountability and performativity. This adds to the problem of convincing teachers of the importance and benefit of de-privatisation of practice (Goos *et al.*, 2007), as teachers are focused on their pupils in their classrooms and their results. This individualistic nature of teaching (Burbank and Kauchak, 2003) may also result in limited access to new ideas (Hargreaves and Fullan, 1992) and little reflective practice (King, 2011). Furthermore, managerial professionalism may result in a narrowing of curriculum and more focus on test preparation (Mathews, 2010) and on an ethos of teaching-to-the-test (Ravitch, 2011). This is of real concern in Ireland with the recent introduction of mandatory reporting of aggregated test results to the DES, parents and school boards of management. Issues of professional integrity and trust may be central to this accountability process. While Mathews (2010: 23) acknowledges that measurement processes are necessary, she argues for

. . . a formative accountability system that will operate on two fronts: the improvement efforts in schools, to include the professional development of teachers and the willingness of

political systems to invest resources where they are most needed.

This is a difficult challenge in these straitened times. Anecdotally this move towards reporting of test scores to the DES has resulted in many principals feeling that the ROI is following other countries such as the United States (US) and the United Kingdom (UK) into accountability and performativity measures that have resulted only in mediocrity (Sachs, 2006).

The difficulty therefore lies in 'how to respond to the challenges of globalisation, sustainable development and the knowledge society' (Conway *et al.*, 2009; TCI, 2010: 6). Indeed, Sachs (2006) posits that this focus on performativity and accountability is reflective of the demands of this 'knowledge society' and is a response to an 'erosion of trust' within many professions and institutions, such as the banks and the church, nationally and internationally (Sachs, 2003: 5). However, a 'new professionalism' has been advocated for some time by Hargreaves (1994), who promotes teacher collaboration and participation in decision making, problem solving and planning PD, which may support teacher autonomy and ownership in relation to school improvement (Seed, 2008; King, 2011). This latter model of new professionalism has been described as 'democratic professionalism' valuing social justice, fairness and equality (Kennedy, 2007: 99), emphasising 'collaborative, cooperative action between teachers and other educational stakeholders' (Sachs, 2001: 153). Teachers are the gatekeepers of change in their classrooms, and appreciating the centrality of teachers and teacher autonomy in the change process is essential for school improvement (National Council for Curriculum and Assessment (NCCA), 2010).

However, with autonomy comes teachers' professional responsibility for pupils' learning (Sahlberg, 2007). While the democratic model of professionalism is advocated in literature, the managerial model which is aligned to globalisation and its private sector values is arguably more dominant in reality (Smyth *et al.*, 2000; King, 2011). It allows managers or districts to arguably demonstrate increased professionalism through

evidence of mandatory requirements of PD, thus raising teachers' skills and standards, as is the case in Ireland with the introduction of the Literacy and Numeracy (L & N) Strategy (DES, 2011). However, professionalism is about what teachers do that results in an improvement for pupils (Earley and Bubb, 2004), not what others want them to do (Evans, 2008). The challenge here is that PD and raising teachers' skills does not always result in pupils' improvement.

## **Philosophical Approach**

This research is predicated on an underlying ontological position that the reality of the social world is constructed by the participants engaged within it, their intentions or behaviour-with-meaning. Aligned with this is the epistemological position that this reality or knowledge of the social world can only be constructed through individuals' perceptions or beliefs, which may be influenced in different ways according to context, time, circumstances and experiences. This correlation between the epistemological and ontological underpinnings of this study is further reflected in the qualitative research methodology, which drew on interviews with individual participants of the PD initiative to gain insights into their experiences of it. However, just as individuals' experiences and understandings are influenced by their values and beliefs, this research is influenced by my values (Bryman, 2008) or positionality in relation to the study.

It is important to disclose my position relative to what is being researched, as 'all writing is "positioned" and within a stance' (Creswell, 2007: 179). Therefore, a brief professional biography is included as a means of adopting a reflexive approach which will make my potential biases, values and assumptions more transparent (Creswell, 2008).

I am employed as a SEN teacher in a rural disadvantaged primary school in the ROI. However, for this school year I am seconded to the Professional Development Service for Teachers (PDST), a support service for teachers funded by the DES. In my career to date I have undertaken postgraduate

work in the area of SEN, which awakened my interest in the socio-political debate around inclusion of pupils with SEN into mainstream schools. I developed a keen interest in the rhetoric and reality of inclusion through this work and through having a daughter with dyslexia. My beliefs and values in relation to inclusion developed through these experiences, which were further advanced through undertaking a Master's degree in SEN. Full curricular inclusion was advocated in the literature, which involved schools making systemic changes to meet their pupils' needs (Ferguson, 1995; Thomson *et al.*, 2003).

The reality in Ireland seemed quite different, however, with schools largely supporting pupils through withdrawal only (McCarthy, 2001, cited in INTO, 2003). I had been working with three pupils with severe dyslexia and supporting them through withdrawal from the classroom. They did not like being withdrawn for their support, and so for my Master's I explored ways of supporting them within the mainstream classroom. While I valued the pupils' perceptions, I needed to ensure that I was able to support them effectively within the mainstream classroom. As the school is designated disadvantaged, there were a number of pupils in the same classroom who had difficulties in the area of literacy, so I explored the literature to find a suitable way of meeting the needs of all the pupils. This led to my awareness of PT and having pupils work in pairs to improve their literacy needs (Butler 1999; Fuchs *et al.*, 2001). However, this approach required me, as a SEN teacher, to 'team teach' with the classroom teacher, something neither was familiar with. The classroom teacher, who was also the principal of the school, was willing to embark on this collaborative practice, which lasted for ten weeks. This action research became the focus of my Master's dissertation and resulted in new learning and knowledge for me as a teacher and a researcher.

This research impacted heavily on my beliefs and values relating to inclusive practices for pupils with SEN, so much so that I wrote a book titled 'Special Education in Irish Classrooms: A Practical Guide' (King, 2006). This publication outlined the value of, and challenges associated with,

collaborative inclusive practices – along with examples of how to implement such practices. Around the same time, teachers in Ireland were facing huge challenges in their classrooms due to the inclusion of pupils with SEN and the increasing numbers of ‘newcomer’ pupils who had English as an additional language. Several schools invited me, as an outside ‘expert’, to facilitate PD workshops on collaborative practices for their teachers. At this time I also worked part-time for two colleges on their post-graduate courses for SEN teachers. Through these school visits and post-graduate work I developed insights into teachers’ perspectives about collaborative practices, and I learned that while teachers might be willing to engage with such practices, they felt they did not have the skills or the knowledge to do so.

Within the DES in Ireland at the time, there were many reports and circulars advocating collaborative practices and a move away from sole reliance on withdrawal teaching for supporting pupils with SEN (Government of Ireland, Special Education Review Committee (SERC), 1993; Government of Ireland, Education for Persons with Disabilities Bill, 2003; DES, 2002; DES, 2003; DES, 2005b). I subsequently became involved with the Professional Development Unit of the INTO in designing and facilitating a PD course on inclusive practices. I was later approached by the INTO to carry out research in DEIS schools to evaluate PT as an inclusive methodology for meeting the needs of pupils in the area of reading accuracy, fluency and comprehension. This is the research, as described on page 4, in which I was lead researcher in 2007–08. While the focus was on pupils’ outcomes, it involved collaborative practice by teachers, something which I had come to really value from experience. My professional journey has led me from being a SEN teacher in a small rural disadvantaged school to being an author, part-time professional educator, and regional advisor with the PDST. Along this journey my values and beliefs have been shaped by my experiences, contexts, and people and pupils I have worked with.

This thesis is linked to this journey as it is to these same schools to which I returned to explore the impact of the collaborative initiative. Disclosing positionality in relation to this study is important, as research is not value

free; and it is important to demonstrate my own values, as they have an influence throughout the research process, from its inception in terms of choosing an area of study, to the formulation of research questions, the methodology, data analysis and conclusions that ensued (Bryman, 2008). However, I am fully aware of my position and am conscious at all times of the influence of my values and beliefs on the emerging data and subsequent analysis. I am conscious that analysis may be open to many interpretations, and it is therefore imperative that data is not chosen to suit my own agenda. In this regard, and in line with the University of Lincoln's ethical guidelines (University of Lincoln, 2004) all data analysis documentation has been kept in case the bias needs to be investigated by another party. Just as teachers are encouraged to engage with research and programmes in a critical and non-compliant way, so too I am committed to engage with this research in a critical way to reflect the perspectives of the participants. These issues have been discussed here as it is important to set this material before the reader at the outset, so that the reader has some sense of who I am in relation to the work being presented. However, there are more complex issues relating to positionality within this research, and these issues are explored in more detail in Chapter 3 on methodology.

My professional journey has afforded me a range of experiences, as described above, from which I have developed a keen interest in the area of teacher PD, which has been described as a challenge in education (Kervin, 2007). Teacher PD is at the heart of the 'new professionalism' debate, which, it is argued, has led to teachers feeling the pressures of accountability and performativity resulting in the potential to suffocate risk-taking and the creation of new ideas (Webb, 2007). In direct contrast to this is the concept of a democratic professionalism where teachers are empowered through distributed leadership (Dinham *et al.*, 2008), where bottom-up approaches are encouraged and supported. My personal journey has allowed me to experience the influences and importance of context and teachers' individual perspectives in areas of change. These beliefs and values are associated with the ontological and epistemological stances of this research which allow for and value subjectivity and the importance of individuals' perspectives.

## **Conclusion**

This introductory chapter presented the rationale, aims and research questions that this study is based on. It outlined the context of the study set in five urban disadvantaged primary schools in the ROI, along with the philosophical underpinnings and my position as the researcher within the process. The research originates from the calls for more emphasis on teacher PD to support the changes in society and the diversity of our classrooms. The notion of teacher PD is part of a wider debate on teacher professionalism, which may influence teachers in their PD. A lack of understanding of teacher change has been reported to be responsible for widespread failure of change initiatives (Fullan, 1991). Therefore, this research focused on teachers' perspectives of the change process as experienced in a collaborative PD initiative over a three-year period from 2007–2010.

Chapter 2 encompasses a critical analysis of the literature from which the research questions and framework for evaluation evolved. Chapter 3 describes the methodology employed in this study, along with how the framework was operationalised, further exploration of the schools in this study, and the data analysis procedures used. Chapter 4 reports the findings to each of the research questions and briefly discusses these in relation to the literature. These findings are then synthesised and explored in Chapter 5 along with a critique of the evaluation framework. Finally, Chapter 6 draws all of this together and presents the new knowledge, ideas and 'Professional Development Impact Evaluation Framework' that have emerged from this research, along with recommendations for future research.

## **Chapter 2            Literature Review**

### **Introduction**

This review is structured around four broad areas that informed this research, which focuses on the impact of a collaborative professional development (PD) initiative on teachers' professional learning. The first section expands on the concept of teachers' professional learning as set out in Chapter 1 and the central role of teacher PD, specifically collaborative PD within this concept as it has been linked with enhanced outcomes for pupils and school improvement (Bubb and Earley, 2009). The second section reflects on factors that help or hinder the development of teachers' professional learning, while the third focuses on aspects that facilitate sustainability of these practices. The fourth section investigates impact evaluation of PD, which Ofsted (2006) cited as the weakest link in the PD chain. Measuring impact requires an evaluation framework (Desimone, 2009), many of which are explored here in relation to the factors and processes for developing and sustaining change. This exploration revealed some gaps in existing frameworks (Guskey, 2002; TDA, 2007; Bubb and Earley, 2010), resulting in further development of these frameworks for this study.

### **Teachers' Professional Learning**

This study explores the development and sustainability of teacher's 'professional learning' – and within that the concept of 'profession', as teachers' learning may be hugely influenced by the wider debate of teacher professionalism. It is therefore important to articulate what is meant by teaching as a profession. For teachers the concept of 'professionalism' may reveal a range of connotations. Some focus on a profession as members enhancing their own expertise for the good of the people that they serve (Bubb and Earley, 2008; Forde *et al.*, 2009; O'Sullivan, 2011). A classical view encompasses engagement with research and enhancing of skills, thus showing a commitment to work and behaving responsibly, with a sense of

duty which may be reflective of professional accountability (Mathews, 2010) under a 'new professionalism' (Evans, 2008: 20).

While this 'new professionalism' emphasises a commitment to undertake PD, the questions remain as to what type of PD, determined by whom and for what purpose. It may indeed conflict with another element of professionalism: teacher autonomy. Some argue that teacher autonomy has been replaced by bureaucratic and political accountability, and teacher judgement by standardisation of practices, with the power shifting from teachers to managers under 'managerial professionalism' (Kennedy, 2007: 99). This shift also echoes the transfer of private sector values to public sector work, which values effectiveness, efficiency and value for money (Bottery, 2006).

There is an international trend towards managerial professionalism in teaching, in a bid to reverse the 'erosion of trust' within the profession (Sachs, 2003) and answer the needs of 21<sup>st</sup> century learners (Sachs, 2006). Whether this trend is caused by globalisation is not clear. However, this accountability agenda, which is largely reliant on quantitative outcomes, has to date resulted in 'mediocrity' (Sachs, 2006), and therefore may no longer be 'fit for purpose' (Collins and Dolan, 2011: 87) and reflect the necessary skills of the knowledge-based economy: creativity, teamwork, problem-solving (Bottery, 2006: 18). Furthermore, teachers are more concerned with what happens at classroom level than at national level (Kitching *et al.*, 2009; Morgan *et al.*, 2009), and with practices that result in improved pupils' outcomes than what others want teachers to do (Earley and Bubb, 2004; Evans 2008). Therefore, teachers need to lead this move from a quantitative accountability agenda to one which is fit for purpose and provides 'assurance to the wider society of the quality and value of their work', a move which requires a 'leap of trust' in teachers by policymakers (Collins and Dolan, 2011: 87) at a time when many countries are going in the opposite direction. This also necessitates an emphasis on teachers' professional learning, which is the growth of teacher expertise leading to a change in practices that results in improved pupil learning (New South Wales (NSW) Institute of Teachers, 2007). Central to this is the contested concept of teacher PD.

### ***Teacher professional development***

The meaning of teacher PD is challenging for the main stakeholders in the educational world (Neil and Morgan, 2003), with many terms used reciprocally in the literature – *staff development*, *lifelong learning* and *continuing professional development* (Crawford, 2009). Some consider them all to be the same, while others attribute different meanings to them depending on the paradigm they are coming from. For the purpose of this research the term *PD* will be used and clearly defined, as this is the term largely used in Ireland. However, *CPD* (*continuing professional development*) may be used in some places in this thesis because of references, and so for the purpose of this study they are interchangeable.

Like professionalism, PD can be viewed conceptually at the ‘macro-level concerns or the micro-level realities’ (Guskey, 1991: 240) each having their own agenda. While teachers may conclude that PD relates to their individual professional needs, schools may view it in terms of policies, while at national level it may be viewed as regulations for teachers (Neil and Morgan, 2003; King, 2011). The DES in Ireland recently launched a national programme of PD courses for teachers, and introduced 20 hours of mandatory PD for teachers every five years as a means of enhancing teacher practices to enable improved literacy and numeracy outcomes.

Intrinsic to this is the emphasis on school self-evaluation as a necessary component for school improvement (DES, 2011). Teacher PD has a significant role to play in this journey from self-evaluation to school improvement, where the outcomes of self-evaluation help schools analyse teachers’ PD needs and fulfil them for school improvement (Bubb and Earley, 2010). While school self-evaluation is aligned with the accountability agenda, it also has a PD purpose by meeting the needs of teachers in their school context (MacBeath, 1999). The difficulty arises with the interpretations that individuals attach to PD, as it may in turn influence their attitude towards it (Crawford, 2009). Findings from Opfer and Pedder’s (2011: 21) quantitative

study from 1126 respondents in the UK show that the association between performance management and teacher PD is 'particularly problematic' in schools where there is a lack of positive alignment between teachers' needs and school level needs or departmental regulations.

At a practical level, PD can assume a number of forms; for example, it may be seen as courses or activities with a beginning and end (Barak *et al.*, 2010). This depiction of PD as only formal activities makes it 'synonymous with training courses' (Crawford, 2009: 56), perhaps in a bid to answer the need for accountability and standardisation. Easton (2008: 755) traced the path to professional learning from its beginning with professional training, which was aligned with the factory model of education involving 'what someone does to someone else', to professional learning, which involves teachers changing practices to enhance pupils' outcomes. However, this focus on knowledge accumulation does not necessarily result in deep professional learning to change practice (NCCA, 2008), with studies showing that some teachers feel no responsibility to change practices as a result of PD (Bubb *et al.*, 2008). In Ireland this may be partly due to PD being viewed as 'synonymous with DES-led initiatives that teachers are expected to attend' (O'Sullivan, 2011: 115). Sugrue (2002) suggests that this may result in teachers engaging with it in a compliant and non-critical manner, thus lacking the deep professional learning which Poulson and Avramidis (2003) showed, in their mixed methods study with 225 UK primary school teachers who were identified as effective at teaching literacy, is required for sustaining change. Furthermore, this technical and prescriptive view of PD ignores teacher autonomy, which is necessary for creativity.

However, not all view PD as formal activities. It may be seen as:

the sum total of formal and informal learning experiences throughout one's career from pre-service teacher education to retirement.

(Fullan, 1991: 326–327)

This acknowledgement of learning from day-to-day experiences on the job (Barak *et al.*, 2010) over the life cycle of one's career is reflected in the term *continuing professional development* (CPD), which is widely used in the literature. In contrast to this widely held view of PD, Bubb and Earley (2008: 26) posit that PD is not defined by activities, courses or experiences but rather as an outcome from these courses, activities and reflections on day-to-day experiences in the classroom. This is similar to the view of the NSW Institute of Teachers, who describe PD as the 'processes, activities and experiences that provide opportunities to extend teacher professional learning' (2007: 3), which was described on page 15 as the growth of teacher expertise that leads to a change in practices resulting in improved student learning. In this way PD is a 'third-order activity' (Cordingley *et al.*, 2003: 14) which focuses on outcomes. This definition from the NSW Institute of Teachers will be adopted for use in this research.

This focus on improved teacher practices and pupil outcomes is highlighted by many researchers (Darling-Hammond, 1997; Kratochwill *et al.*, 2007). Professional practices can relate to what teachers do in their classrooms (behaviours), as well as their professional knowledge, skills, attitudes and values (Evans, 2010). Adopting this broader view of PD sees teachers as self-directed agents taking responsibility for their own professional growth (Day and Sachs, 2004) and places PD as an integral part of professional life (Barak *et al.*, 2010), which may also help meet the accountability agenda. The TCI argue that PD is 'a right and a responsibility' (TCI, 2011: 19) through the provision of opportunities for PD and acknowledgement of teachers taking responsibility for their own PD. They intend to produce a clear policy framework for PD (TCI, 2011) which will provide 'the best basis for the introduction of areas of change' (NCCA, 2010: 20) and may help address the 'vagueness around the concept of professionalism in Ireland' (O'Sullivan, 2011: 123). While this framework may be seen as a positive, providing entitlement and enhanced status for teachers, it may also give more control to government (Purdon, 2004). Whether or not the two agendas of social justice and accountability can sit together within this framework remains to be seen.

The challenge with PD is to transfer teachers' professional practices into improved pupil outcomes (Rhodes *et al.*, 2004), a process which is not automatic (Cumming, 2002) and requires support for teachers (Joyce and Showers, 1988). Whether this support is ongoing or has any impact is not clear. However, the literature does show that a purposeful collaborative learning approach to PD can facilitate and support enhanced pupils' outcomes and school improvement (Bubb and Earley, 2009). To realise purposive collaborative learning approaches to PD can be difficult in a profession that is permeated by the individualistic nature of teaching (Mathews, 2010). Nevertheless, it is widely accepted that a considerable proportion of teacher learning happens through collaborative interplay with others (English, 2008). In accordance with this belief and the concept of teachers as participants within the school community focusing on school improvement, there is a need to shift from a focus on individual practices to collaborative practices within schools (Bolt, 2007). Keeping this in mind, this research is situated within the social contexts of schools and has a particular focus on developing and sustaining teachers' professional learning through a purposive collaborative model of PD.

### ***Collaborative Professional Development***

Collaborative PD as defined by Cordingley *et al.* (2004: 2) is having 'specific plans to encourage and enable shared learning and support between *at least two* teacher colleagues on a sustained basis', and includes planned classroom activities and building upon existing practice. Kennedy (2011), however, argues that it may encompass a range of activities, from teachers working collaboratively in an informal unplanned way to the development of professional learning communities (PLCs), with the key aspect being the social element in teacher PD. There is compelling evidence in Bubb and colleagues' (2008) large qualitative study with 35 case-study schools, which reported that teachers engaging in purposeful collaboration involving activities to trial were reported to make most impact on school improvement. The collaborative model of PD used in the present study involved teachers in

purposeful collaboration, through team teaching, where they were trying out a literacy initiative. Team teaching involved teachers with varying expertise working and learning together to help meet the needs of their pupils.

Team teaching is used synonymously with cooperative learning, collaborative teaching and co-teaching; the last is considered the umbrella term for all collaborative models of teaching (Murawski and Swanson, 2001; Welch, 2000). Analyzing the impact of collaborative PD such as team teaching is challenging due to low levels of practice and the different formats being used, all of which may impact on the outcomes. Interestingly, findings from Opfer and Pedder's (2011) large quantitative study show teachers highly valuing collaborative classroom practices despite low levels using them. Nevertheless, collaborative classroom-based learning has been identified as characteristic of effective PD (Cordingley *et al.*, 2005; Pedder *et al.*, 2008; Kennedy, 2011), with findings showing teacher satisfaction in terms of professional growth, increased confidence, feeling less isolated and being part of a community (Thousand *et al.*, 2007), along with the ability to transfer practices to other classes or subject areas (Ó Murchú, 2009). If enforced, however, team teaching is akin to 'contrived collaboration' (Hargreaves, 1994: 247) and may never lead to sustained collaborative relationships. Maybe this is why team teaching has largely not been achieved (Scruggs *et al.*, 2007) and 'we still have not cracked the code of getting beyond the classroom door on a large scale' (Fullan, 2007: 9).

For the purpose of this study, the term *collaborative PD* will be used to describe the team teaching model of intervention which was used. Collaborative PD reflects the views of Darling-Hammond (1997) and Dinham *et al.* (2008), who highlight the importance of teachers developing a shared pedagogy.

Pedagogy concerns enabling the learning and intellectual growth of students in contrast to instruction that treats students as the object of curriculum implementation.

(MacNeill *et al.*, 2005)

This concept is similar to teachers' professional learning where the focus has moved from teacher input to pupils' learning. The emphasis is on how we can help pupils learn, which requires teachers to have knowledge of pedagogy, curriculum, learners, subject matter and pedagogic content knowledge (PCK) (Smith, 2007).

PCK is knowledge of ways of representing specific subject matter for learners and an understanding of difficulties they may face because of their existing conceptions

(Smith, 2007: 378)

There is a continuum for teachers whereby they may begin with procedural knowledge, where they are concerned with practical issues, and over time develop conceptual understanding or the theoretical underpinnings (Baker *et al.*, 2004) and a shared vision of pedagogy and PCK (Smith, 2007). This is perhaps how PD and collaboration come under the one agenda of collaborative PD, as shared vision can only be derived from shared work (Bolam *et al.*, 2005).

However, it is important to acknowledge that teachers need to develop on an individual basis. For school improvement, opportunities for teachers to learn together are essential (Ainscow *et al.*, 2000) as it is often the collective effort of the teachers that may have a significant impact on pupils' learning (Mathews, 2010). Teachers learn from their interactions with each other and from the combination of each individual's knowledge (Kennedy, 2007), something Kennedy refers to as *transformative learning*, which can produce real change (Kennedy, 2005). However, to render teachers' collaborative professional learning more effective, a deeper understanding of teachers' learning and factors that help or hinder it is necessary (Wermke, 2010).

### **Factors that help or hinder the development of PD**

We appear to know more about why PD fails than why it succeeds, and while there are no definitive characteristics to ensure success, certain conditions have been accepted as being conducive to successful PD (Guskey, 1991). Opfer and Pedder (2011) categorised these under teacher, school

leadership, and content. However, this may not take cognisance of the school context or factors such as the length of the PD initiative. Kervin (2007) by comparison used the headings: teacher, experience, and school, which would seem to allow for the above omissions while including those of Opfer and Pedder (2011); it will therefore be used when considering the enabling and inhibiting factors for the development of PD. Note that while this study is focused on collaborative PD as defined above, teachers may develop individually and collectively, personally and professionally, and all of these are interdependent influences which need to be explored.

### ***The Teacher***

Teacher PD involves change at various levels: practices and behaviours, beliefs, attitudes, skills, and knowledge (Evans, 2010), all of which may impact on how and what teachers learn from PD experiences. At an affective level, teachers' changes can include: changes in beliefs; enhanced confidence and self-efficacy, along with 'greater enthusiasm for collaborative working' and 'a greater commitment to changing practice and willingness to try new things' (Cordingley *et al.*, 2003: 61). At learning and behavioural levels there may be evidence of teachers continuing to use their new and improved knowledge and skills to enhance pupils' learning. However, Hargreaves and Fullan (1992) argue that changes at a behavioural level are preceded by changes in understanding and beliefs about how pupils learn. Others argue that teachers can change their practices first (Bolt, 2007).

The more typical order of change in practice is first, student learning, second, attitudes and beliefs last. And the reason that is so, is that it is experience that shapes the attitudes and beliefs; it's not the other way around.

(Guskey, 2005: 7)

However, they might not sustain such practices (Webb, 2007). Some concerns have been expressed regarding little evidence of changes in teachers' beliefs and values (Gleeson and O'Donnabháin, 2009; Opfer *et al.*, 2010). Change is not a linear process, rather a reciprocal interplay between changes in beliefs, practices and pupils with no definitive starting place

(Opfer *et al.*, 2010). This cyclical view of change is drawn from Huberman's (1995) work and further developed by Opfer *et al.* (2011), who argue that teachers' beliefs and values may often be greater than their practices, perhaps due to the influence of organisational conditions and individual teacher characteristics in this process.

Since the teacher is seen as the 'change agent' in educational practice 'through whom the most significant impact can be made' (NCCA, 2010: 20), then their beliefs about whether PD would enhance their own learning and that of their pupils are important (Opfer and Pedder, 2011). 'No single factor influences the instructional setting more than a teacher's knowledge and beliefs about teaching and learning', write Lipson and Wixson (1997: 128). These beliefs can be influenced by teachers' perceptions of a practice as relevant for their classrooms, or the meaningfulness of it for personal gains and professional work (Crawford, 2009; NCCA, 2010; Opfer and Pedder, 2011). However, even when adults know that change is necessary, they can still fear it (Fullan *et al.*, 2005) and have difficulty changing (Bolt, 2007). Teachers need to feel secure and capable of change (Schein, 1992; Bubb and Earley, 2008) and have high levels of self-efficacy, that is, a belief in their power to effect change (Kitching *et al.*, 2009; Morgan *et al.*, 2009).

Change is personal and professional and sensitivity to this essential connection between the personal and the professional in the lives of teachers is a key to the success of initiatives in the area of educational change.

(NCCA, 2010: 17)

The difficulty here lies with the mismatch between individual PD needs and those of the school or state, especially in a climate of standardisation and performativity where changes within schools are often imposed by principals or PD coordinators (Bolam *et al.*, 2005) through performance management. This renders teachers as 'technicians carrying out someone else's policy' (Priestley *et al.*, 2011: 269) rather than being active, creative participants in their own professional learning. Moving from top-down PD to that of beginning with the teacher and their schools was advocated (Raptis and

Fleming, 2005; NCCA, 2010), but may be disconcerting if Webb's (2007) argument – that individual and school needs are both determined and subsumed by national strategy – is true. However, teachers' challenge is to find 'space' (Bell and Bolam, 2010) to adapt national strategy in a way that is aligned with their own values and context (Booth, 2003; King, 2011). Nevertheless, some teachers may feel coerced to engage with PD for job security or because it is the culture in which they work (Bolt, 2007). Perhaps a more balanced approach would encompass a mixture of top-down and bottom-up approaches to PD (Fullan, 1993; Stoll and Fink, 1996; Priestley *et al.*, 2011). In particular, top-down support (Darling-Hammond and McLaughlin, 1995) for a 'grassroots' approach (Bubb and Earley, 2008: 19) may make teachers aware that what they are doing is valued (Blase and Blase, 1998; Slutsky *et al.*, 2005; Stevenson, 2008; Evans, 2010).

Winning teachers' 'hearts and minds' as well as achieving behavioural change are essential for effective PD (Bubb and Earley, 2008; Evans, 2010). Implementing and sustaining change is more attainable when teachers elect to change as opposed to being mandated to change, and it leads to 'the high road to success' (Baker *et al.*, 2004: 5), thus highlighting the importance of teacher's individual enthusiasm and willingness for self-improvement (Bolt, 2007; Bubb and Earley, 2008). Some teachers are natural enthusiasts and are willing to try anything (Bubb and Earley, 2008). However, allowing teachers to identify their own PD in collaboration with all sides (Cordingley *et al.*, 2003) provides greater teacher autonomy, and answers the need for PD to be voluntary and suited to individual teachers' needs (Blase and Blase, 1998; Kervin, 2007).

Teachers tend to embark on new practices based on the opinions or experiences of colleagues (Mathews, 2010), as they are deemed more feasible, accessible, practical and trustworthy than independently exploring research-based practices (Landrum *et al.*, 2002; Boardman *et al.*, 2005; Carter and Wheldall, 2008). The case for evidenced-based practices has been argued by many (Carter and Wheldall, 2008; Sigafoos *et al.*, 2008) and yet there is little manifestation of it in reality (Bubb and Earley, 2009).

Encouraging teachers to engage with and develop research-based practices would require sustained support for teachers (Opfer *et al.*, 2010). Interestingly, Norris (2004) argues that not only empirical data is useful.

### ***The PD Experience***

The most instrumental feature of PD is content (Desimone, 2009), with calls to focus more on curriculum, pedagogy and PCK (Bolam *et al.*, 2005; Kervin, 2007) than on 'enrichment gimmicks' (Blase and Blase, 1998) or what is 'fashionable' (Carter and Wheldall, 2008: 19). Teachers must perceive this content as relevant to their needs or interests within the classroom (Darling-Hammond, 1997; Blase and Blase, 1998; Bryant *et al.*, 2001; Smith, 2007) to be committed to the practice (Goos *et al.*, 2007). The PD that involves changing approaches as a result of teachers' own self-evaluation and pupils' feedback is most valued by teachers, and results in the highest levels of change (Pedder *et al.*, 2008). This may be significant in Ireland in the coming years, with self-evaluation practices now mandatory (DES, 2011). However, schools need support to implement self-evaluation practices (Mathews, 2010; McNamara *et al.*, 2011). Teacher learning and PD are the link between self-evaluation and school improvement (Plowright, 2007; Bubb and Earley, 2008).

Teachers value PD that involves problem-solving (Lawlor and King, 2000), active learning, and experimenting with classroom practices (Opfer *et al.*, 2010) to enable their pupils to learn. This kind of PD experience may result in more teacher ownership of practices (Kervin, 2007), thus suggesting that ownership is an outcome of change, not a condition of change (Fullan *et al.*, 2005: 55). However, the PD experience needs to meet teachers at their individual 'levels of skill, motivation, and prior knowledge' (Kervin, 2007: 51) or 'zone of proximal development' (Vygotsky, 1978: 86) to ensure that teachers feel they have the competence and capacity for the practice (Priestley *et al.*, 2011), thus establishing teacher confidence, efficacy and morale, which are necessary for teacher engagement with new initiatives (Bubb and Earley, 2008).

If school improvement is dependent on teachers having 'discretionary autonomy' to produce creativity and innovation (Crawford, 2009), then government, inspectors and principals need to take cognisance of this when prescribing PD and evaluating practices. Mathews (2010: 158), a senior inspector in the DES, reported that some teachers fear that inspectors would object to creative and risk-taking practices. She argues that teachers' experiences of the WSE should be enabling of risk-taking and innovation, as innovative practice can occur from the bottom up in schools where teachers collaborate, share practices and engage in self-evaluation and reflective practices. Getting this balanced approach to PD may be challenging in a climate of standardisation and accountability where teachers feel under pressure to perform. Another challenge is that teachers are more concerned with what happens in their own classrooms than at school or national level (Kitching *et al.*, 2009), with findings from Pedder and colleagues' (2008: 14) quantitative study with 329 responses from primary schools indicating that teachers are not inclined to link their PD with 'strategic benefits such as school improvement'. However, in schools where leaders understand the potential of PD for school improvement, it can result in real change (Opfer *et al.*, 2010). This move from individual responsibility to collective responsibility at whole-school level can be difficult in a profession that is largely individual and in a culture that promotes performativity.

Many PD experiences involve 'one-shot' approaches instead of continuous professional learning over an extended timeframe (Kervin, 2007; Opfer *et al.*, 2010) to facilitate intellectual and pedagogical change (Desimone, 2009) and to enable embedding change (Hopkins *et al.*, 1994; Nudell, 2004; Kratochwill *et al.*, 2007). 'One-shot' in-service programmes may have little relevance to teachers' day-to-day difficulties in the classroom (Guskey, 1996), resulting in few changes being implemented (Goos *et al.*, 2007). Longer-term continuous PD that is evidence-based, collaborative and embedded in the contexts of teachers' work is deemed most effective for lasting change (Pedder *et al.*, 2008: 34). However, the influence of individual contexts renders it more difficult to allow for comparative data in an effort to reach orthodoxy in PD

(Guskey, 1995), yet these contexts need to be explored with a view to gaining understanding of their effects.

### ***The School***

A key feature in the literature is the impact of the contexts in which teachers work (Hargreaves and Fullan, 1992; Kervin, 2007). Teaching and learning are contextual, and ensuring that PD processes take cognisance of individual professional identities, dispositions, roles and the setting in which teachers work is important to make it relevant (Hodkinson and Hodkinson, 2005; Bottery, 2006). A one-size-fits-all approach to PD may answer the call for accountability, but may also lead to standardisation of practices, resulting in a failure to meet the needs of all pupils (Boardman *et al.*, 2005). This is perhaps why many have advocated on-site PD as identified by the teachers themselves (Norris, 2004; Bolt, 2007; Kervin, 2007). However, a call for a more balanced approach to PD with a combination of situated and off-site learning was made, as relying exclusively on site-based learning may lead to lost opportunities for sharing of ideas and resources, less collaboration among teachers from various contexts, less efficient use of outside expertise, and less exposure to a broad vision for improvement (Guskey, 1996).

Context also includes the culture in schools, such as the ethos, the way they do things and their state of readiness for change, which it is argued is often influenced by the nature and quality of leadership (NCCA, 2010). While leadership itself is a contested and complicated concept, there has been wide acknowledgement that it can have a profound impact on teacher motivation, on the quality of teaching in classrooms (Fullan, 2001a; Rhodes *et al.*, 2004; Kervin, 2007), and on promoting and sustaining change (Fullan *et al.*, 2005). Principals can create organisational capacity, which includes investing in teachers through providing PD and on-going support (Fullan *et al.*, 2005) and in schools as learning organisations, both of which are fundamental to the change process (NCCA, 2010). ‘Professional development does not just happen – it has to be managed and led’ (Earley

and Bubb, 2004: 80) or led and supported (NCCA, 2010). In Ireland, the TCI (2011) also acknowledges the principal's role in this regard.

However, leadership behaviour may vary. This is reflected in the dichotomous approach to the analysis of leadership that has emerged in the late 1990s and early 2000s with transactional and transformational leadership (Ingram, 1997). These approaches to leadership were chosen because they are the most useful for understanding the leadership behaviours in this research. Transactional leadership involves leaders and followers and is predicated on encouraging teachers to change through extrinsic rewards and sanctions, while transformational leadership is said to be characterised by leaders and teachers united in trying to achieve goals, having similar values and vision for the future (Bass and Riggio, 2006).

Bass and Riggio (2006) have identified transformational leadership as the most successful method of achieving real lasting change, as it focuses on winning teachers' 'hearts and minds', cultural change and fostering a desire for improvement. This is akin to what Priestley *et al.* (2011: 270) describe at secondary level as 'facilitative leadership (trust, democratic structures, autonomy, innovation, risk taking)' which, they argue, contributes to teachers' engagement with change. However, this involves professional trust and a shift in power from leaders to the teachers at the chalk face, which can be very difficult for leaders in a climate of accountability, control and performativity. Principals trusting in their teachers' beliefs, values and judgements are documented as a key priority by the European Commission (2010). While there is much discourse about this type of leadership, it is not so visible in a reality where principals are seen as guardians and governors of learning and feeling under pressure to deliver results.

It is challenging to try to build capacity but focus on outcomes, to collaborate but compete, and to innovate but avoid mistakes (Bell and Bolam, 2010). These approaches may be somewhat reflective of the dichotomy between managerial and democratic professionalism (Kennedy, 2007) in that a managerial approach may be aligned with managing and leading PD, by

comparison to a democratic approach that may lead and support PD. Managerial or transactional leadership is more likely to result in transmission models of PD which emphasise outcomes and cost-effectiveness (Gewirtz and Ball, 2000), with teachers as the technicians transmitting government and organisation policies. Meanwhile, democratic leadership focuses on transformative models of PD where teachers are supported to work in a constructivist mode to transform their practices to suit the needs of their pupils in their contexts (Kennedy, 2007).

Leadership also plays a critical role in promoting collaboration between teachers based on trust and respect (Lugg and Boyd, 1993; Leonard, 2002; Bottery, 2006), where all participants are equally ranked and input is highly respected (Slater, 2004; King, 2011). People are encouraged to share their expertise and vision and to take risks together (Stoll and Fink, 1996; Sergiovanni, 2005) that may lead to greater capacities for change and school improvement (Bryk and Schneider, 2002). Trust is a fundamental part of social capital, which may lead to strong collaborative cultures, which have been shown to enhance a school's intellectual capital (Sachs, 2003; Mathews, 2010). Collaborative practices may begin with 'exchange and coordination' and move along a continuum to 'more complex professional collaboration' based on sharing feedback on practice and improvements (Gilliece *et al.*, 2009: 12; Conway *et al.*, 2011).

Teachers need support in developing collaborative practices (O'Sullivan, 2011), and evidence from Bolam and colleagues' (2005) 16 case studies in the UK suggests that teachers need to be initially willing to trust others, and this trust will deepen as collaborative practices develop. Furthermore, findings from Cordingley and colleagues' (2003) 17 studies of collaborative PD from across the world showed the need to provide non-contact time to promote collaborative planning for sustained teacher development. Providing teachers with time to reflect and consolidate learning is also important (Neil and Morgan, 2003; Stevenson, 2008; King, 2011), as teacher reflection allows for assessment and learning through self-evaluation, which provides 'self-accountability' (Stoll and Fink, 1996: 168). This use of pro-active and

reflexive forms of accountability (Bottery, 2006) may be seen as evidence of internal accountability (Sugrue, 2011) and professional responsibility.

Promoting teacher participation in collaboration, problem-solving, decision-making, planning PD activities and evaluating teaching (Friend and Cook, 1990; Slater, 2004; Webb, 2007; TCI, 2011) may help foster a sense of ownership in relation to school improvement (Seed, 2008; King, 2011). This has been described as distributed leadership (Dinham *et al.*, 2008), with teachers assuming more responsibility through such roles as 'team leader, action researcher, curriculum developer, and in-house trainer' (Seed, 2008: 587) all resulting in increased teacher autonomy and ownership (Blase and Blase, 1998). However, some may see this as 'new managerialism', with teachers being managed to ensure improved classroom practice (Gewirtz and Ball, 2000; King, 2011). While some teachers may view distributed leadership as allowing them to have more autonomy and social engagement (McLean, 2008), others not involved in distributed leadership may feel that they are being managed and are losing their teacher autonomy (Slater, 2004; Beatty, 2007; Scruggs *et al.*, 2007). This may have repercussions for teacher morale, with issues around parity of esteem and equality of status (Ó Murchú, 2009). Getting the balance between collaboration and protecting teachers' individuality can be difficult (Stoll and Fink, 1996) when people are coming from various paradigms (Lopez *et al.*, 1993). Leadership has a significant role in this regard, and when teachers' and principals' perceptions of structure and culture of forms of collaboration are aligned, it provides strong supportive pre-conditions for capacity building (Sachs, 2001; Björkman and Olofsson, 2009).

While collaborative PD focuses on purposive collaborative interactions, it cannot exclude incidental, informal and unintended conversations, discussions and sharing of opinions that occur in the normal everyday lives of teachers, which Matthews and Candy (1999) argue represents up to 90% of teacher learning that occurs within schools. While Hodgkinson and Hodgkinson (2005) accept that much learning occurs incidentally and unintentionally, they contend that teacher learning is best enhanced through

the development of more formal learning opportunities for teachers: through the creation of cultures where learning is valued and supported. The difficulty here lies with teaching being highly individualistic (Burbank and Kauchak, 2003), with professional privacy prioritised over transparency and practice (O'Sullivan, 2011) and with collaboration possibly contrived under the umbrella of performativity rather than in a climate of shared responsibility, values and pedagogy. Where principals mandate collaborative practices in a managerialist and top-down approach, a form of 'contrived collegiality' may result (Hargreaves, 1994: 247 ), with a negative impact on sustainability of collaborative practices (Fallon and Barnett, 2009). Collective participation in PD is seen as an essential component of effective PD (Desimone, 2009). If teacher isolation has led to a failure in educational improvement, then teacher engagement in collaborative practices, such as team teaching, has to be seen as a marker for change and a criterion for measuring impact. Whether or not these practices are sustained over time is also significant and needs to be explored.

### **Sustainability of PD Practices**

The paucity of research measuring the impact of PD has resulted in little evidence of changes and sustainability of practices in teaching and learning over time (Baker *et al.*, 2004; Priestley *et al.*, 2011). Sustaining change can be difficult and 'more often than not involves jumps and starts, leaps forward, steps backwards' (NCCA, 2010: 15). However, while many innovations have been initiated in schools, evidence suggests that there is a problem with sustaining these practices (Cuban, 1988). This is disconcerting given the consensus that effective PD includes activities that are sustained (No Child Left Behind Act, 2001; Desimone, 2009; King, 2011). While this literature review has highlighted factors that support teacher engagement with PD and change, it is essential to explore the conditions to facilitate sustaining these changes so that they are embedded into everyday teaching lives.

Factors associated with sustaining changes have been suggested in the literature. The first centres on teachers' developing deep learning of the practice introduced. Linked to this is the development of professional learning communities (PLCs) to facilitate deep learning and the dissemination of practices to others. School cultures may also impact on the development of PLCs and sustainability of practices. Underpinning all of these is teacher agency, which helps teachers mediate challenging or difficult circumstances. These factors will now be explored in more detail.

### ***Deep Learning***

Results from a longitudinal study suggest that sustaining changes necessitates deep learning (Bolam *et al.*, 2005). This encompasses teachers' conceptual understanding of practices and their use of practices at a constructivist level (Sugrue, 2002), where they are being refined to better meet the needs of the learners in their classrooms (Hall and Hord, 1987; Baker *et al.*, 2004; O'Sullivan, 2011; King, 2011). Furthermore, where teachers have embraced changes in practice, these may extend to other areas of the curriculum outside the focus of the original innovation (Raptis and Fleming, 2005). A difficulty arises when some teachers modify their practices so that they are far removed from that which they received training on (Klinger *et al.*, 2003). This may be attributed to a lack of deep learning, which in turn may lead to having little impact on pupils' outcomes or to discontinuation of use. However, Boardman *et al.* (2005), in their qualitative study of 49 US elementary teachers, showed the importance of teachers' perceptions of practices, as teachers said they were more likely to sustain practices where they can individualise them to meet the learning and behavioural needs of pupils, where they perceive that pupils enjoy the practice, and where they witness pupil growth through formative assessment during the practice. Similar findings were reported by Baker *et al.* (2004) from their qualitative study with teachers in an elementary school in the US.

Despite this and Elmore's (2004: 39) empirical view of deep learning as 'a fundamental precondition for any change in practice', it may not always be

possible for teachers to engage with changes at a conceptual level from the beginning. Teachers need support to move along this continuum (Hall and Hord, 1987), and they may not be afforded this support and time to think and reflect in a culture of performativity, where quick results are often required and teachers' work is organised to maximise efficiency. This support may be in the form of creating cultures in which collaborative practices focused on teaching and learning are valued and supported (Hodkinson and Hodkinson, 2005), thus enhancing the system's overall capacity (O'Sullivan, 2011). One such approach for building capacity within schools is the development of PLCs centred on teaching and learning.

### ***Professional Learning Communities (PLCs)***

The concept of PLCs is complicated and intricate, with many versions explored in the literature and various terms such as *learning organisations*, *communities of practice* (Wenger, 1998) and *teacher professional communities* being widely used. They will be explored here in terms of how they relate to sustainability of PD. Schools must build their capacity for change, which is central to school improvement (NCCA, 2010), by supporting collaboration with the development of PLCs in the context of a school (Earley and Bubb, 2004; Bolt, 2007). The power of school-based learning cannot be ignored (Sugrue, 2002; English, 2008). The concept came into vogue around the 1990s with the influential work of Senge (1990), who offers the following definition of a learning organisation:

Organisations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together.

(Senge, 1990: 3)

While this description of a learning organisation was not founded in the educational domain, it became relevant and applied to the world of education. Many other definitions have evolved since then, a more recent approach to defining PLCs being that by Bolam *et al.* (2005), from their 16

UK case studies, who highlight eight characteristics of effective PLCs: shared values and vision; collective responsibility for students' learning; collaboration focused on learning; individual and collective professional learning; reflective professional enquiry; openness, networks and partnerships; inclusive membership; and mutual trust, respect and support. The emphasis is on learning constructed in social contexts (Wenger, 1998). Echoing this are O'Sullivan's (2011) characteristics of PLCs, which reflect those of Bolam *et al.* (2005) but further add supportive conditions and shared leadership as being essential components to facilitate the development of PLCs for sustainability of practices. Developing PLCs in the Irish context is 'deemed particularly challenging given our dominant culture of non-interference with professionals' (O'Sullivan, 2011: 114), and therefore schools are in need of much support in developing such collaborative practices.

Notable too is that PLCs are not static or fixed, with schools being at different stages of development (Bolam *et al.*, 2005; Stoll *et al.*, 2006). Moreover, they are not ideal communities where everyone shares the same ideas and opinions at all times (De Lima, 2003). Rather they are seen as

a continually shifting, unstable, stratified, imprecise, porous, and malleable landscape of connection originating from one discourse or another about motives for collective interaction and learning.

(Fallon and Barnett, 2009: 9)

Currently there is a widely shared recognition of the necessity and power of PLCs as being influential in sustaining change (Eaker *et al.*, 2002; Leonard, 2002; Bolam *et al.*, 2005; Fullan *et al.*, 2005). Nevertheless, they are not established in many schools (Harris, 2001; King, 2011) and there is little evidence linking them to improved pupils' outcomes (Webb, 2007). However, it is acknowledged that developing and sustaining these cultures is onerous and problematic (Nevin *et al.*, 1993; Leonard, 2002; King, 2011). This may be partly due to the concepts in the above definitions being contested (Fallon and Barnett, 2009). The emphasis on schools becoming PLCs through collaboration and collegiality (Leonard, 2002; Seed, 2008) and having

collective responsibility, activity and professional learning (Sytsma, 2006; Seed, 2008; Fallon and Barnett, 2009) can be somewhat idealistic, especially in a culture of performativity.

In the UK the onset of the 'new culture of competitive performativity' (Ball, 2003: 219) has implications for principals who have the onerous task of imparting the culture of accountability while trying to promote the development of PLCs and preserve teacher morale, commitment and identity. Findings from Fallon and Barnett's (2009: 20–21) Canadian qualitative study with 13 participants show teachers' perceptions of PLCs as being predicated on authoritarianism and hostile to innovation and creativity, which is in direct contrast to Senge's (1990) 'collective aspiration' being set free. In such cases, instead of 'generative' or authentic PLCs which occur 'when community members are on the decision-making end of ideas to change things', what may result are 'adaptive' or pseudo-PLCs where people participate in 'response to policies, materials or knowledge framed outside the community and imposed on it' (Fallon and Barnett, 2009: 10). Perhaps teachers are being lured into a sense of having freedom to experiment and reflect on practices through PLCs while under it all the ultimate goal is accountability. This is more reflective of a culture of mistrust and suspicion, which echoes what Sachs (2003) refers to as the decline in social capital over the past few decades. This 'erosion of trust in people and institutions are [sic.] one of the first casualties' in a time when performativity is a dominating discourse (Sachs, 2006: 4).

When accountability and conforming to authoritarianism are foremost, then teachers' identities with PLCs can be troublesome and lost (Ball, 2003; Snyder *et al.*, 2003), resulting in PLCs not being sustained (Fallon and Barnett, 2009). While many directives exist from the DES and the TCI in Ireland endorsing the power and practices of forming PLCs, there is little guidance as to how it can effectively happen without time allocated to do so, and thus 'it is left to school leaders to find 'creative' ways for so doing' (O'Sullivan, 2011: 118). It is essential that research shows how schools develop and sustain PLCs (Bolam *et al.*, 2005). The time issue may recently

have been alleviated in Ireland through the introduction of the extra hours teachers must participate in outside of school time, as part of the 'Croke Park Agreement' (Department of Public Expenditure and Reform, 2010) with the social partners. However, this agreement is part of an efficiency and performativity drive by the government, and therefore has been met with some negative attitudes by teachers. Whether or not these attitudes prevail and hinder professional dialogue remains to be seen.

In contrast, when teachers' relationships are based on trust and belonging, with freedom to be creative and innovative, then PLCs may be sustained (Sachs, 2003; Mathews, 2010). Teaching is an emotional business (Kitching *et al.*, 2009; Morgan *et al.*, 2009), and taking cognisance of emotional experiences for all involved is crucial to the success and sustainment of such collaborative cultures (Beatty, 2007). Many researchers have argued that having a specific learning activity and action as an integral part of setting up a learning community is essential for developing and sustaining creative, authentic PLCs (Easton, 2008; Hayton and Spillane, 2008; Fallon and Barnett, 2009). By working on a project together, teachers develop relationships and levels of trust which may in turn unite them in their issues (Earley and Bubb, 2004).

Leadership has frequently been cited as the most critical component for successful and sustained use of PLCs (Snyder *et al.*, 2003; Sheppard and Brown, 2009), by promoting individual and collective beliefs and learning, and by providing resources and structures such as money, time, space, meetings, procedures and processes for communication, along with staff redeployment to facilitate these processes (Bolam *et al.*, 2005). Encouraging teachers to become leaders themselves through modelling new innovations for their peers (Goos *et al.*, 2007) or facilitating and monitoring implementation of new procedures (DES, 2009) may also promote further participation in PLCs and change (Stoll and Fink, 1996). This is akin to distributed leadership (Dinham *et al.*, 2008), which endorses the idea of handing over curriculum and pedagogical responsibilities to teachers. Whether this is a way of ultimately promoting conformity and making

teachers take responsibility for school improvement and performativity is however questionable. While this process of 'institutional devolution' appears to be giving teachers more freedom, it may indeed be serving the need for performative competition (Ball, 2003: 219). The culture in which PLCs are promoted may be highly influential in their ability to enable schools to embed changes arising from PD.

### ***School Culture***

School culture can be defined as a 'set of core beliefs and assumptions' (Johnson and Scholes, 1993: 61), attitudes (Evans, 2008) or the way things are done in a school (Norris, 2004). Culture defines how schools operate (Evans, 2008), and principals can set the school culture through their actions or words. Culture can also be created by teachers and it can rapidly change as the teachers change (Stoll and Fink, 1996; Webb, 2007). Schools may have several different sub-cultures or 'multiple realities' based on interests and curriculum areas (Morgan, 1986: 133), which may be reflective of Hargreaves and Fullan's (1992) notion of 'Balkanisation'. New teachers are often socialised into professional cultures, which in turn frame their views of teaching and professional identity (De Lima, 2003). School re-culturing may be required for change, but this is an ongoing complex process that involves a 'myriad of social interactions and evolving relationships that must measure up to new tests every day' (Beatty, 2007: 328). It is a multistage cycle requiring negotiation and evaluation at each stage (Schein, 1992).

For school improvement, 'the real agenda is changing school culture not single innovations' (Stoll and Fink, 1996: 45–46). However, innovations which are embedded within the culture of the school and answer a need in that school may lead to school improvement (Hopkins *et al.*, 1994). Innovations are often the catalyst for change (Goos *et al.*, 2007) and can result in effective change in the form of commitment to improvement (Fullan *et al.*, 2005). When teachers work together on new initiatives, beliefs and values may change in a process known as additive change (Stoll and Fink, 1996), which is cultural change – even though it may not have been

intended. This is similar to Fallon and Barnett's (2009) concept of a generative authentic learning community.

Such collaborative cultures may also lead to other beneficiaries (Stevenson, 2008). For example, the impact of PD could be extended to other teachers who were not involved in an original PD intervention, which in turn could lead to improved outcomes for other pupils, a process known as 'cascading' (Earley and Bubb, 2004: 84) or described by Stevenson (2008: 343) as the 'ripple effects' of PD. However, findings from the *Staff Development Outcomes Study* show that PD appears to have little impact outside of the original teachers (Bubb *et al.*, 2008). Findings from Hargreaves and Fink's (2003) five-year programme of school improvement, involving six secondary schools in Canada, showed that staff turnover and changes in leadership in schools can be quite high and may result in the decline of effective practices in schools.

Professional learning communities and collaborative cultures may help provide a system for dissemination of findings by creating space for teachers to enlist others to try the practices (Goos *et al.*, 2007). However, PLCs and collaborative cultures alone will not produce change; they need to be focused on knowledge of curriculum, assessment and pupil learning (Fullan and Sparks, 2003), which may help embed and consolidate collaborative practices and pave the way for future collaborative practices. In this way collaboration and PLCs may be an effect of collaborative PD and therefore may come under the heading of impact of PD (King, 2011). While the concepts of PD, collaborative practices and PLCs are complex and challenging, it is accepted that they are essential components linking teaching and school improvement (Earley and Bubb, 2004; Cordingley *et al.*, 2004; Pedder *et al.*, 2008; Desimone, 2009).

Central to all of this are the teachers as change agents using their skills to mediate factors that enable or inhibit the sustainability of practices through human agency (Crawford, 2009; Evans, 2010). Human agency has been described as the basis for being a responsible and effective professional

(Billett, 2009), and reflects teachers acting in intentional ways to 'shape their own responses to problematic situations' (Fallon and Barnett, 2009: 12). There can be no action without agency (Fallon and Barnett, 2009) just as there can be no improvement without change (Norris, 2004).

Many factors have been highlighted above for the sustainability of practices within schools. These include teachers' deep learning in relation to practices, the importance of PLCs and school culture to facilitate this, and the dissemination of practices within schools. The significance of teacher agency in this regard was also emphasised. Enhancing the professional practices of teachers through PD is pivotal in improving education and learning (DES, 2011). Sustainability of these practices is critical for school improvement, and yet little evidence exists linking them with pupils' outcomes or school improvement (Kratochwill *et al.*, 2007; Opfer *et al.*, 2010; King, 2011). To ensure improved teacher development, pupil outcomes, value for money (Rhodes *et al.*, 2004) and a guarantee for future designing and delivery of high-quality PD (NSW Institute of Teachers, 2008), evaluation of its impact needs to be undertaken.

## **Evaluating the impact of PD**

Evaluating the impact of PD has been cited as the weakest link in the PD chain (Ofsted, 2006), despite PD being described as 'a learning tool that improves the quality of both the CPD activity and the outcomes achieved' (Earley and Porritt, 2010: 147). While it is often neglected (Earley and Bubb, 2004) and elusive, it is also problematic (Rhodes *et al.*, 2004; CUREE, 2008 in Pedder *et al.*, 2008). This may be due to the challenge in defining PD, creating time to evaluate its impact (Rhodes *et al.*, 2004), establishing cause and effect or having the 'experience, skills and tools' to do so (Earley and Porritt, 2010: 6). Nevertheless, the DES (2011: 37) mandated that PD courses be 'adequately assessed and evaluated'. However, if PD is seen in the traditional sense of 'inputs', such as courses, rather than the 'actual development of knowledge and expertise (outcomes)' then this may impact on its evaluation (Bubb and Earley, 2008: 5).

For decades, measuring the impact of PD has largely consisted of looking at teacher satisfaction and has ignored pupils' outcomes, processes that facilitate PD effectiveness (Desimone, 2009), and value for money (Rhodes *et al.*, 2004; O'Sullivan, 2011). Generally, evaluation of PD appears to be 'instinctive, pragmatic and without explicit reference to clearly defined learning outcomes for teachers or students' (Opfer *et al.*, 2010: 10). Evaluations need to focus on measuring changes in professional practice and impact on pupils' learning (Guskey, 2005; Bubb and Earley, 2008) to help schools on their journey from self-evaluation to school improvement. Despite this, there seems to be a lack of focus on developing teachers' ability to evaluate the impact of their own PD to see the effect it has made on school improvement (Plowright, 2007). The use of a common conceptual framework to evaluate short- and longer-term PD would help researchers to plan effective PD opportunities for teachers (Desimone, 2009) and help teachers in the school improvement process.

### ***Evaluation Models***

The need for a common conceptual framework for PD evaluation has been identified; this section reviews existing models and frameworks, identifying their strengths and limitations in light of the literature. This process of reviewing existing frameworks has informed the development of a new 'Professional Development Impact Evaluation Framework', which was used to evaluate the impact of the collaborative PD initiative in this study. One of the earliest examples specific to education was that of Stake (1967), which explored:

- 'antecedents': how things were before the programme began
- 'transactions': what occurred during the programme
- 'outcomes': what resulted from the programme.

While this framework looks at the outcomes resulting from an initiative, establishing cause and effect is difficult as there may be many variables; for example, discerning whether improved pupil outcomes result from the implementation of an intervention or as a consequence of the teachers'

personal development from being involved in the intervention (Frost and Durrant, 2003; Stevenson, 2008). Perhaps outcomes result from a combination of things. However, what can be identified are contributing and impeding factors.

Guskey (1991) argues for the support of a 'change agent' in the PD process, and subsequently developed a framework which includes:

1. Participants' reactions
2. Participants' learning
3. Organisation support and change
4. Participants' use of new knowledge and skills
5. Students' learning outcomes.

(Guskey, 2002: 47)

Organisation support and change resonates with others who have since called for a focus 'on the attributes and organisational features of the school that are necessary for success' (Earley and Bubb, 2004: 81) and are 'most conducive for teachers to learn and experiment with new skills, knowledge and pedagogy' (Nudell, 2004: 52). This organisational support may be in the format of a change agent, leadership, policies, resources, or time for sharing and reflection.

A particular strength of this model is that it includes the various levels at which pupils' outcomes are measured. Guskey (2002) measures impact at affective, cognitive and psychomotor levels, as relying solely on quantifiable learning outcomes for pupils is not appropriate for measuring impact (Rhodes *et al.*, 2004). Teachers' perceptions of pupils' outcomes are very important (Rhodes *et al.*, 2004; Fallon and Barnett, 2009) and may include enhanced motivation, improved attitudes, better organisational skills, improved performance (Cordingley *et al.*, 2003), and reduced misbehaviour or absences (Murawski and Swanson, 2001; Rhodes *et al.*, 2004), all of which Guskey (2002) measures using this model. However, one aspect missing from these two frameworks is that of collaboration amongst teachers predicated on developing a shared vision of pedagogy and PCK (Darling-Hammond, 1997; Smith, 2007).

The Training and Development Agency for Schools (TDA, 2007) developed a framework which does include collaboration. Its eight levels of impact evaluation are based on prescribing intended outcomes at the planning stage of PD, as advocated by many researchers (Bubb and Earley, 2010; Priestley *et al.*, 2011); see Table 2.1.

<b>Table 2.1      Framework for evaluation (TDA, 2007: 2)</b>	
1.	Planning for CPD and the evaluation of its impact should be integral to performance management.
2.	Impact evaluation should focus on what participants learn, how they use what they have learned, and the effect on the learning of children and young people.
3.	There should be an agreed timeline for evaluating outcomes, accepting that some outcomes, such as children and young people's improved performance, may take longer to become evident than others. Unanticipated outcomes will also be considered by the review.
4.	Planning and implementation of the impact evaluation should be a collaborative process between the individual and key staff involved in performance management and/or coaching and mentoring.
5.	The evidence base and the success criteria for the evaluation of impact should be agreed.
6.	Impact evaluation should be considered in the short, medium and long term. Longer-term professional development activities should involve formative reviews of impact at agreed stages.
7.	The evaluation of impact should include a cost-benefit analysis of the professional development.
8.	The processes for evaluating the impact of CPD activities need to be reviewed regularly to ensure that they are effective and proportionate.

While this model is very comprehensive and allows for a broad evidence base for impact evaluation, it is important to note that the power lies with the dominant stakeholders here, the government, whose underpinning agenda may be based on performativity and accountability. It refers to a 'cost benefit analysis' with no reference to what that includes or how it is done. It focuses more on what people learn and how they use it, similar to Guskey (2002), with no reference to *why*, which centres around pedagogy and engagement at a conceptual level and is necessary for sustainability of change.

Furthermore it highlights that evaluation should be a collaborative process between the individual and key staff in performance management, once again promoting individual accountability which may hinder the development of collaborative practices. It does not measure people's ability to collaborate but assumes 'individuals will be able to engage in professional dialogue with key school personnel as an element of their performance management' (TDA, 2007: 2).

This approach is questionable given Baker and colleagues' (2004: 2) argument that implementing and sustaining change is more attainable 'when teachers elect to change as opposed to mandated change'. Assuming that teachers will be able to engage in forms of collaboration is possibly naïve in a culture of teaching as an individualised profession and teachers being more concerned with things at classroom level than nationally or globally (Kitching *et al.*, 2009; Morgan *et al.*, 2009). If teachers believe the implementation of this evaluation process is for accountability purposes, what may happen is contrived collegiality in an effort to conform to external mandates. This may result in teachers engaging at a technical, rational level which may have no lasting value. The issue of context is important in teacher learning, and if teachers believe this process to be valuable for their context then they may be more willing to work together. Teachers may need help and support in developing collaborative skills and PLCs to use this evaluative framework. However, where schools are operating with authentic or adaptive PLCs, then this framework offers explicit guidelines as to its use.

A more recent framework was devised by Bubb and Earley (2010), resulting in twelve levels of impact evaluation which also require collaborative planning at the onset of PD. See Table 2.2.

**Table 2.2 Framework for evaluation (Bubb and Earley, 2010: 61)**

Level	Measuring
1. Baseline picture	Where you are
2. Goal	Knowing what you want to achieve
3. Plan	Planning the best way
4. The experience	Initial satisfaction with the experience
5. Learning	Knowledge, skills, attitudes acquired or enhanced
6. Organisational support	How the school helps (or hinders) the person using their new learning in their job.
7. Into practice	Degree and quality of change (process, product or staff outcome) following from the development activity
8. Students' learning outcomes	Impact on experience, attainment and achievement of students
9. Other adults in school	Sharing learning with other adults and the impact on them
10. Other students	Impact on experience, attainment and achievement of other students
11. Adults in other schools	Sharing learning with adults in other schools and the impact on them
12. Students in other schools	Impact on experience, attainment and achievement of other students

Bubb and Earley (2010) endorse the idea of paying attention to evaluation at the planning stage of PD, as advocated by Guskey (2000), the TDA (2007) and MacBeath in his self-evaluation process (1999). This may require high levels of collaborative professional dialogue such as those in a PLC, to plan for school improvement, which may be challenging in a culture where isolated privatism is more valued by some than collective responsibility (O'Sullivan, 2011). Many individual teachers embark on PD that is relevant to their needs in their classrooms and they can therefore plan for specific impact in terms of pupils' outcomes. To enable whole school or departmental self-evaluation and planning requires collaborative practice, which may be missing. The TDA (2007) have highlighted that evaluation of impact at the end of a project may be a link to future planning for PD. However if teachers embark on a collaborative initiative aligned to their individual needs, they could evaluate its impact using part of Bubb and Earley's (2010) framework (numbers 4–12). When the collaborative aspect is embedded in practice, the whole framework could be used for planning for future PD, as teachers are electing to work together to produce better outcomes rather than doing so in a culture of performativity and accountability: two roads to the same place.

A positive facet of this framework is the new dimension which looks at the dissemination of PD, which may include intended or unintended outcomes. Pupils' outcomes are categorised under experience, attainment and achievement, and are similar to Guskey's (2002) levels: Cognitive (performance and achievement); Affective (attitudes and dispositions); and Psychomotor (skills and behaviours), which seem to reflect the work of Bloom (1956). The framework also looks at teacher outcomes in terms of products, processes and staff outcomes. These products and processes take cognisance of the factors and processes necessary for developing and sustaining PD. Products are tangible outcomes such as new policies, new network meetings, plans or workshops, while processes are new practices. Staff outcomes are described as impact in terms of 'the difference in staff behaviours, attitudes, skills and practice as a result of the professional development undertaken' (Earley and Porritt, 2010: 8).

These are measured by drawing on the work of Frost and Durrant (2003), who describe staff impact at three levels: classroom practice, personal capacity and interpersonal capacity. Interpersonal capacity (Frost and Durrant, 2003) may include 'more confidence in sharing good practice and managing and influencing colleagues' and 'more effective ways of working together' (Earley and Porritt, 2010: 9). Some argue that 'sharing of learning alone' (Opfer and Pedder, 2011: 5) is inadequate for successful outcomes on teaching and learning (Conway *et al.*, 2011).

While the framework explores teachers' personal capacity and classroom practice and learning under knowledge, skills and attitudes acquired or enhanced, it does not make reference to teachers' levels of understanding and learning. Teachers may progress from procedural to conceptual knowledge over the duration of an initiative (Hall and Hord, 1987; Baker *et al.*, 2004). While some impact studies assess teachers' continued use of initiatives, Hall and Hord (1987) present an interesting way of assessing teachers' levels of use (LoU) and understanding of an initiative. Some teachers stay at the procedural level of understanding related to initiatives,

while others really engage with the theoretical underpinnings. Hall and Hord's (1987) LoU can be seen in Table 2.3.

**Table 2.3: Levels of Use of the Innovation**

	Level of Use	Behaviours
<b>Users</b>	Renewal	Makes major modifications in the innovation or their innovation use to improve the impact on pupils. Examines new developments in the field.
	Integration	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	Makes changes to enhance the impact on pupils in their class.
	Routine	Established use of the innovation. Little thought about improving innovation use. Not making any changes to it.
	Mechanical	Concerned with logistics and organisational issues. Clings to the user guide. Makes changes to suit user needs. Focuses on short-term, day-to-day use of the innovation.
<b>Nonusers</b>	Preparation	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. No commitment to use the innovation.
	<del>Nonuse</del>	Absence of innovation-related behaviour – no knowledge or involvement, and doing nothing towards becoming involved.

Subsequently other researchers have explored impact using three of these LoU: mechanical, routine and refined/integrated (Baker *et al.*, 2004). Refined and integrated were amalgamated, as the initiative in focus was collaborative by nature, as is the case in this study. The 'renewal' level refers to making major modifications to a research-based initiative, which would result in lack of procedural fidelity (Klinger *et al.*, 2003) which in turn may impact on expected outcomes for pupils. As this study focused on people who did engage with the initiative, it used the three levels of use similar to Baker *et al.* (2004), and thus omitted the three levels of nonusers in this study.

These LoU of new and improved knowledge and skills provide clear guidelines as to the impact on teachers' professional practice and learning, and begin to provide a way of gauging impact. Interestingly, in Baker *et al.* (2004) it is argued that a considerable number of teachers never pass beyond the routine level of understanding and use. Knowledge at conceptual levels, as evidenced in routine and refined/integrated levels, is aligned with deep learning and sustaining change (Hall and Hord, 1987). Furthermore, Baker *et al.* (2005) posit a tentative link between teachers' efficacy and their depth of understanding of new knowledge and skills.

Exploring the above evaluation frameworks reveals areas of strength and limitations. While many of the models focus on organisational support, pupils' outcomes, and teacher outcomes, the most comprehensive is that of Bubb and Earley (2010), which has valuable additions that are not evident in previous models – for example, teacher attitudes, the dissemination of practices to other pupils and adults in the school and other schools, the important focus on learning with specific references to knowledge and skills, and processes and products.

Overall, analysis of these models in light of the literature reveals gaps especially in the area of collaborative practices, which are seen as the cornerstone for change. The models do not include various forms of collaboration, such as mentoring or coaching, or the development of PLCs, which are heavily endorsed in the literature, as essential components for teacher learning, sustainability of practices and whole school change and development. The literature also highlights the importance of teachers' deep learning, such as that identified by Hall and Hord (1987) in Table 2.3, for sustainability of practices along with teacher commitment and ownership.

This analysis of the evaluation frameworks and the relevant literature has enabled a synthesis of findings and the development of a new 'PD Impact Evaluation Framework' that acknowledges the strengths and addresses the limitations of previous models. See Figure 3.2, for this framework, and Table 3.1 to see how this framework is operationalised for use in the current study.

## **Conclusion**

The concept of PD is contested, with some viewing it as 'input' and others as a third- order activity with the development of expertise leading to a change in teacher practices resulting in improved pupil outcomes (Bubb and Earley, 2008). While it is acknowledged that change is important, not enough is known about it and what it takes to sustain change over time. Getting teachers to change their professional practice is a slow and arduous process

and one that needs to be facilitated and supported. Engaging with change may result from intrinsic and extrinsic factors (NCCA, 2010) but it does not necessarily involve improvement. Initial levels of commitment or motivation may be high and then wane with time. In some cases teachers may be coerced into trying initiatives which will not result in long-term change. Electing to change leads to the 'high road to success' (Baker *et al.*, 2004: 5).

While it is accepted that PD is an integral part of the teaching profession, what is not agreed is how to provide that PD in a way that maximises its impact. This review highlighted the importance of meeting the needs of teachers at a professional and personal level and ensuring that PD is feasible for their school context. The role of leadership was emphasised as pivotal in supporting teachers in this regard. Leaders can operate at transactional or transformational levels, and as such can enlist teachers to change through extrinsic or intrinsic rewards. However, additional support in the form of a change-agent or coach (Rhodes *et al.*, 2004) may be required to help teachers develop conceptual knowledge and deep learning (Baker *et al.*, 2004; Bolam *et al.*, 2005).

Collaboration has been identified as a means of strengthening the impact of PD (Fullan, 2001b). However, convincing teachers of the need to collaborate is difficult in a culture of individualism and performativity where they may feel they are being managed under 'new managerialism' (Gewirtz and Ball, 2000). Through 'distributed leadership' (Dinham *et al.*, 2008), teachers may assume more responsibility, which may bring more autonomy. However, when leaders' and teachers' concepts of collaboration are aligned, real change can take place (Björkman and Olofsson, 2009). Teachers appear to learn through collaboration and developing a shared vision of pedagogy (Darling-Hammond, 1997; Dinham *et al.*, 2008) and PCK (Smith, 2007). Engaging with purposive collaborative models of PD, such as team teaching, can help teachers develop a collective responsibility for pupils' learning and school improvement, as it requires teachers to engage in professional dialogue. This may lead to the development of PLCs which are social learning systems where teachers collaborate towards common goals. A

supportive school culture would promote the development of such collaborative learning systems.

Sustaining change also requires plans for dissemination of learning, in order to ensure a PD legacy. However, this needs to allow for a move from a transmission model of PD to a transformative model (Kennedy, 2007), which facilitates a move from procedural levels to conceptual levels of knowledge. Despite all the factors that hinder PD, Crawford (2009) and Fallon and Barnett (2009) argue that individual teachers, through human agency, have the power to transcend most of these. Being aware of the factors that help develop and sustain PD is important, but evaluating the impact of PD will improve its quality and outcomes (Earley and Porritt, 2010), which in turn may help school improvement.

## **Research Aims and Questions**

This study focused on developing and sustaining teachers' professional learning through a collaborative PD initiative, and it sought to:

- explore the impact of a collaborative PD initiative on teachers' learning in five urban disadvantaged schools in Ireland;
- focus on short-term and long-term impact in an effort to fill the research gap relating to sustainability of new practices in schools;
- explore the factors that helped or hindered the development and sustainability of PD practices.

The literature highlighted the importance of evaluating the impact of PD (Earley and Porritt, 2010) and indeed the lack of existing research exploring the relationship between PD and school improvement (Kratochwill *et al.*, 2007). To support an exploration of impact, a 'Professional Development Impact Evaluation Framework' was devised. This framework developed from gaps revealed through an analysis and synthesis of existing frameworks. The framework itself formed part of the research in testing its suitability for measuring short-term and longer-term impact of PD. The research questions

(Table 2.4) have emerged from this framework which comes from the literature review.

**Table 2.4      Research Questions**

<ol style="list-style-type: none"> <li>1. Short-term Implementation: How did the collaborative PD initiative develop in each of the five schools? <ul style="list-style-type: none"> <li>▪ Why did the school get involved in the initiative?</li> <li>▪ Who was involved?</li> </ul> </li> <li>2. Short-term impact: How do teachers describe the impact of the collaborative PD at the end of its initial implementation? <ul style="list-style-type: none"> <li>• On a personal level</li> <li>• On a professional level</li> <li>• On pupils' outcomes</li> <li>• On a collective level</li> </ul> </li> <li>3. What were the key factors that shaped the changes in teachers' professional practice and learning during the ten-week period? <ul style="list-style-type: none"> <li>• What factors had a positive impact on the implementation of the initiative?</li> <li>• What factors had a negative impact on the implementation of the initiative?</li> </ul> </li> <li>4. Longer-term development: What has happened since? <ul style="list-style-type: none"> <li>• To what extent have teachers maintained their changes in practice and learning over time?</li> <li>• How have teachers maintained these over time?</li> </ul> </li> <li>5. Longer-term impact: How do teachers describe the impact of the PD initiative? <ul style="list-style-type: none"> <li>• On a personal level</li> <li>• On a professional level</li> <li>• On pupils' outcomes</li> <li>• On a collective level</li> </ul> </li> <li>6. What were the key factors that shaped the long-term development and sustainability of teachers' professional practice and learning? <ul style="list-style-type: none"> <li>• What factors had a positive impact on the long-term development and sustainability of teachers' professional practice and learning?</li> <li>• What factors had a negative impact on the long-term development and sustainability of teachers' professional practice and learning?</li> </ul> </li> </ol>
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The necessity to move from evaluating PD in terms of teacher satisfaction to looking at its impact on teachers' learning and pupils' outcomes was highlighted (Guskey, 2000; Baker *et al.*, 2004). Therefore, research questions 2 and 5 looked at teachers' perspectives and insights on how the collaborative PD initiative impacted on their personal and professional learning and pupils' learning. Teachers' perceptions and judgement of improved pupils' outcomes are a critical aspect of teachers' motivation to sustain practices. The literature drew attention to the need for collaborative learning and practices for the development and sustainability of PD. Therefore, questions 2 and 5 sought to explore the impact of the PD at a collective level.

Making PD voluntary and relevant to teachers was endorsed by many (Blase and Blase, 1998; Baker *et al.*, 2004; Scruggs *et al.*, 2007; Kervin, 2007), and therefore questions 1 and 4 explored why teachers got involved and stayed involved with this initiative. A call to move the focus from looking at short-term impact to long-term impact was made by Ofsted (2006) in an effort to fill the gap in research on whether schools sustain the use of practices over time (Baker *et al.*, 2004). These are directly reflected in research questions 1–3, which focused on short-term impact, and questions 4–6, which concentrated on longer-term impact. Questions 3 and 6 explored the factors that helped or hindered the development and sustainability of the PD. These are predicated on the literature emphasising the need to look at the processes involved in PD as well as the outcomes (Cordingley *et al.*, 2008). Chapter 3 follows with a description of how the evaluation framework was operationalised, and of the methodology and data analysis procedures used in this study.

## Chapter 3      Research Methodology

### Introduction

A multiple case study approach was used to carry out this qualitative research initiative, which sought to:

- explore the impact of a collaborative PD initiative on teachers' learning in five urban disadvantaged schools in Ireland;
- focus on short-term and long-term impact in an effort to fill the research gap relating to sustainability of new practices in schools;
- explore the factors that helped or hindered the development and sustainability of PD practices;
- assess impact using the evaluation framework devised from the extant literature.

Evaluating impact of PD is often problematic (Rhodes *et al.*, 2004). It has largely focused on teacher satisfaction and ignored measuring changes in professional practice and impact on pupils' outcomes (Guskey, 2000). This study investigated these aspects by exploring teachers' perceptions of pupils' outcomes, as these have been deemed highly significant given that teachers' beliefs about pupils' outcomes impact on continued use of practices (Boardman *et al.*, 2005; Baker *et al.*, 2004), and relying solely on quantifiable learning outcomes for students is not considered appropriate for measuring impact on pupil improvement (Rhodes *et al.*, 2004).

This chapter outlines the philosophical paradigm that underpinned and influenced the research approach and design of this study. My epistemological and ontological views are explained in light of their influence on the methodology, which also takes cognisance of the reflexive account of my position in this study as outlined in Chapter 1. The research methodology is explored along with the ethical issues and data collection procedures, which outline how the evaluation framework was operationalised. All components of data analysis that were employed are explained.

## **Philosophical underpinnings**

Values, like politics, are ever present and will impact on the research process. Rather than deny their existence, prudent researchers will attempt to understand and make explicit, their personal values while at the same time, seek to understand the values held by people, organisations or cultures being researched or supporting the research.

(Anderson, 1998: 33)

Having been directly involved in the research process, as outlined in Chapter 1, I needed to be aware of my own conscious and subconscious perspectives 'as research reflects the values, beliefs and perspectives of the researcher' (Anderson, 1998: 3). Disclosing the philosophical stance that underpinned this research helps with critical evaluation of the research, as many researchers can reach different conclusions about the same questions or hypotheses, and therefore questions of epistemology and ontology are crucial (Pring, 2000). Epistemology is concerned with knowledge, what constitutes knowledge and how we get that knowledge, whereas ontology is concerned with the social reality or the nature of existence (Morrison, 2002). Epistemology is a contested concept that can be open to objectivity or subjectivity. Similarly, ontology can be external to an individual or considered as a reality that is made up of events or objects as perceived by individual consciousness. This can involve a range of perceptions about the nature of reality (Morrison, 2002). Epistemological and ontological stances influence the philosophical stances or paradigms that inform research, by providing frameworks of ideas and perspectives upon which methodology is based (Gray, 2004).

While the paradigms of research are continually evolving, each representing a set of beliefs that they bring to research, the emphasis here is on positivism and interpretivism as the two main philosophical paradigms that underpin social research, and on their representation of conflicting views of how to interpret social reality. Positivism is the theoretical perspective or paradigm closely linked with objectivism (Gray, 2004). 'The key point about

positivist approaches to educational research is its [sic] adherence to the scientific method' (Morrison, 2002: 15), which can produce a 'truth' and a reality that can be observed through the senses regardless of people. A key pursuit of positivism is showing the generalisation of findings (Morrison, 2002).

The interpretive paradigm, by contrast, does not claim a universal truth or the concept of a reality which exists irrespective of people (Bassey, 1995). Interpretive researchers embrace the notion of subjectivity and the personal involvement of the researcher in constructing their own knowledge and beliefs. However, there remains a commitment to objectivity by acknowledging the effects of people's biases (Robson, 2002). There is no claim to generalisability for findings, but rather additions to existing knowledge which may provide new understandings in similar contexts. Interpretivists also acknowledge the importance of understanding participants' intentions (Pring, 2000) and refer to it as 'behaviour-with-meaning' (Cohen *et al.*, 2007: 21). This understanding of behaviour then leads to establishing theories which account for this intentional behaviour. This is in contrast to positivists, who observe behaviour and not behaviour-with-meaning (Hammersley, 2000).

As this research focused on teachers' perceptions of collaborative PD, it is subjective and personal. This aligns with the epistemological foundation of agency, which acknowledges the personally mediated construction of knowledge (Billett, 2009) which located this study in the interpretive paradigm aiming 'to understand the subjective world of human experience' (Cohen *et al.*, 2007: 21). It contends that knowledge is personal and can be developed and acquired in different ways according to individuals' contexts, experiences, circumstances, place, time and perceptions. In this way knowledge may be socially, culturally and historically constructed and therefore aligns well with this research, which explored the impact on teachers in schools, which are complex social organisations that are constantly changing.

The ontological basis for this study is founded in a reality that is made up of events or objects as perceived by individuals. This allows for exploring teachers' intentions or behaviour-with-meaning and how they experience this phenomenology of change (Fullan, 2001b). This is reflective of human agency, which is concerned with individuals' intentions and actions to enable change, and the assertion that there can be no action without agency (Fallon and Barnett, 2009). My thoughts and beliefs align with those of Trowler *et al.* (2005: 434), who state that 'Individuals' thoughts and decisions are more significant than the structures they operate within', and that agents or participants 'have powers to actively transform their social world whilst, in turn, being transformed by it' (Crawford, 2009: 54). In this way the ontological basis which is concerned with the social reality is predicated on the debate between structure and agency, as espoused in some social research theories such as symbolic critical realism (Archer, 2003). This therefore aligns well with my beliefs in teachers' agency, which sees teachers having the capacity and the power to bring change despite the structures of managerialism and accountability. There is a strong correlation between the epistemological and ontological underpinnings of this study in that it acknowledges that both individuals' learning and knowledge along with societal changes are shaped by human agency or intentionality (Billett, 2011), and these are further reflected in the research methodology.

## **Research Approach**

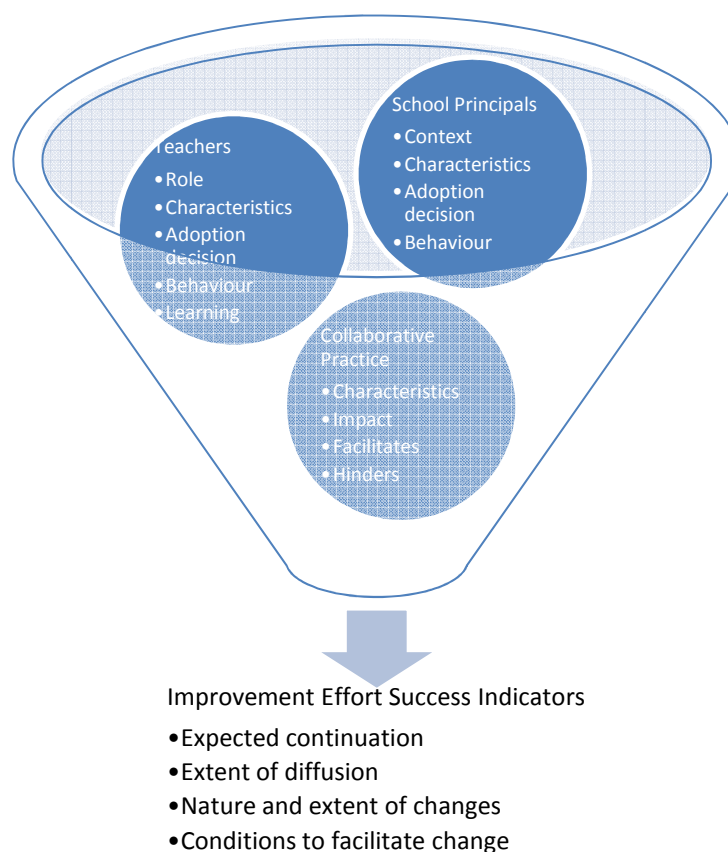
A case study approach was suitable for this research as it allows for an in-depth study into specific phenomena in their natural settings (Robson, 1993; Denscombe, 2003) and it emphasises the importance of the relationships within the context of the research (Yin, 1994). Case study research highlights 'the uniqueness of events or actions, arising from their being shaped by the meanings of those who are the participants in the situation' (Pring, 2000: 40), thus adding to the coherence between epistemology and ontology. Case studies align with qualitative research (Stake, 1995) using mainly qualitative instruments and purposive sampling. This qualitative research aimed to get a holistic view of teachers' involvement in a collaborative PD initiative through

accessing participants' perceptions with a view to understanding ways in which people act (Gray, 2004). Case study research is suited to this study, as it is usually small-scale research carried out in real settings, with emphasis on depth of study not breadth (Denscombe, 2003) and on 'words rather than quantification in the collection and analysis of data' (Bryman, 2004: 366). It is a 'flexible design research' strategy which facilitated looking at five related cases, thus having the advantage of allowing for comparing and contrasting situations (Robson, 2002: 89). The five cases in this study were the same five cases that participated in the research in 2007–08 (King and Gilliland, 2009), as outlined on pages 4–5.

## **Methods**

A conceptual framework was used for focusing the collection of qualitative data (Miles and Huberman, 1994). 'Conceptual frameworks are simply the current version of the researcher's map of the territory being investigated' (Miles and Huberman, 1994: 20), and better research happens when conceptual frameworks are made 'explicit, rather than claiming inductive "purity"' (Miles and Huberman 1994: 23). As my understanding of the 'terrain' improved, the map changed accordingly. Below is a conceptual framework based on Miles and Huberman's (1994: 18) 'Conceptual Framework for a Study of the Dissemination of Educational Innovations', adapted for use in this research.

**Figure 3.1 Conceptual Framework**



To make this relevant to my study, I changed the catalogue of roles to be studied to school principals and teachers. Collaborative practice replaced 'Innovations', and the improvement effort success indicators remained quite similar. This framework helped to specify who and what would be studied. It outlined the four areas of successful outcomes and the relationships between each of the items in the funnel. Each label within each circle of the framework led to research questions on that label.

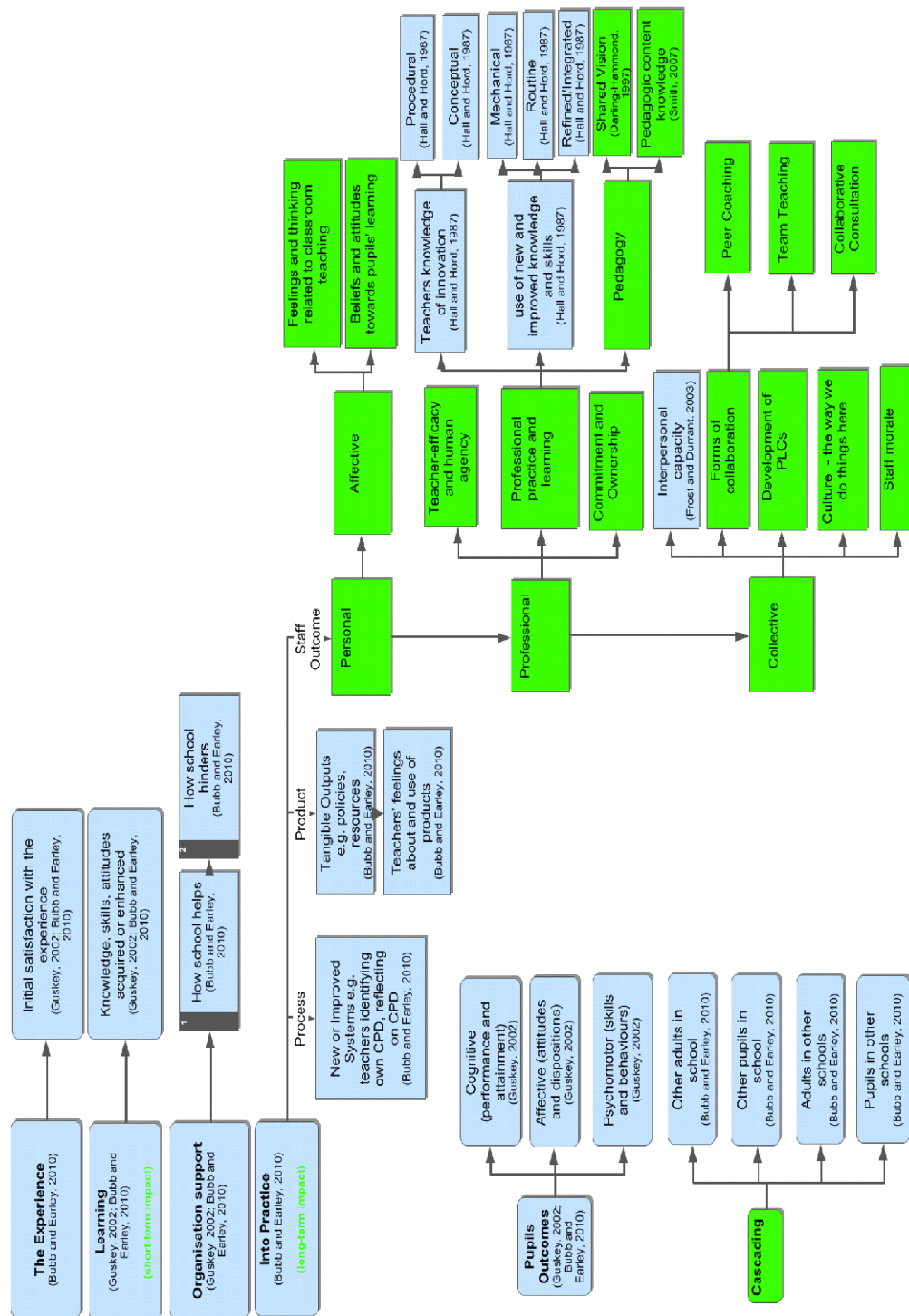
An intensive literature review, as reported in Chapter 2, was carried out to help develop more focused questions (Yin, 2009). This highlighted the importance of evaluating the impact of PD (Earley and Porritt, 2010) and indeed the lack of existing research exploring the relationship between PD and school improvement (Kratochwill *et al.*, 2007). However, following an analysis of existing frameworks for evaluating the impact of PD and a systematic review of the literature on how to evaluate PD, I devised a conceptual framework for evaluating PD which was used as the spine of this

research study; see Figure 3.2. This framework reflects my improved understanding of the 'terrain' (Miles and Huberman's, 1994: 18) and it subsequently directed the research design and process.

All of the components from the original map (Figure 3.1) were included in the later version in Figure 3.2. The contents of this new map or framework were also largely based on the work of Guskey (2002) and Bubb and Earley (2010), and supplemented from the literature (Hall and Hord, 1987). One distinct difference between Bubb and Earley's (2010) framework and the one used in this research is that Bubb and Earley (2010) emphasise the importance of having an initial baseline from which to measure impact at the end of PD by comparison to the beginning. This involves establishing clear aims at the outset of the PD activity and outlining a focus and a goal for the activity (Earley and Porritt, 2010).

As the aim of the initial research in 2007–08 was to increase pupils' literacy outcomes, a baseline does not exist from which to measure impact on teachers now by comparison to the beginning of the initiative in 2007. It was not anticipated in 2007 that future research would be undertaken to explore the impact on teachers. While this is a limitation of the study, it was possible to use retrospective recollections from teachers. Teachers orally reported very positive feedback in 2007 regarding their initial satisfaction and their willingness and intention to sustain use of such practices. However, the fear was that they may present different accounts three years later, especially if the practice had become embedded in their classrooms: they may have had difficulty recalling their previous knowledge and attributing their new knowledge and actions to the initial PD initiative (Smith, 2007). However, it was possible to probe more deeply into this with the interview questions, and in fact some teachers looked back and saw their learning journey clearly.

**Figure 3.2 Professional Development Impact Evaluation Framework**



Having this framework to guide the investigation helped direct the research regarding where to collect relevant data, what kind of data and from whom. It is important to have direction in the form of a framework or 'study propositions' to direct the research design, even though the propositions that are outlined at the beginning of the research may no longer be valid (Yin,

2009: 34). Therefore, the propositions included in this framework, which were predicated on the literature, are critiqued as part of this research. They also directed the study in terms of data analysis, as I was bearing in mind the criteria for interpreting the findings at this design stage (Yin, 2009). It is from this framework that the research questions and subsequent interview questions emerged.

### ***Linking the framework with the research questions***

The link between the research questions and the framework presented in Figure 3.2 is shown in Table 3.1, along with possible sources of evidence.

**Table 3.1 Link between framework and research questions**

Evaluation level	Research questions (RQ)	Evidence
The experience RQ 1	Initial satisfaction with the experience Where did the initiative come from – driving forces? Who was involved? Why did you get involved – volunteer or conscript?	Interviews with principals and teachers
Learning – short-term impact RQ 2	Knowledge, skills, attitudes acquired or enhanced at 4 levels: 1. Personal 2. Professional 3. Collective 4. Pupils	Discussions – teachers' perceptions at the 4 levels from: Interviews
Organisation support RQ 3 and 6	How the school helps (or hinders) the person in acquiring, using and sustaining their new learning?	High-quality professional development and support, time, resources, facilitation, leadership's advocacy and support, other sources of support
Into practice – longer-term impact RQ 4 and 5	Degree and quality of change (process, product, outcome) following the development of PD initiative.	Process – new or improved systems, structures within schools Product – Tangible outputs, e.g., policies, resources Outcome – personal, professional and collective levels
Pupils' learning outcomes RQ 2 and 5	Cognitive (performance and achievement), Affective (attitudes and dispositions), Psychomotor (skills and behaviours) and Social	Teachers' perceptions about pupils' learning: Enjoyment in learning Attitudes Participation Pride in and organisation of work – pupils' work samples Response to questions and tasks Performance and progress – test results Engagement in a wider range of learning practice
Cascading RQ 5 and 6	Other adults in school (sharing learning and its impact on them) Adults in other schools (sharing learning and its impact on them) Other pupils (cognitive, affective, psychomotor and social) Pupils in other schools (cognitive, affective, psychomotor and social)	Are there opportunities for sharing practice? Staff Meetings Observation Formal collaboration time Reflective logs Diary / book of information on staff courses and conferences

The sections of the framework dealing with *The Experience, Learning and Organisation Support* focus on short-term implementation and the impact of being involved in the collaborative PD initiative. The propositions outlined in these sections are considered in research questions 1–3, which deal with the short-term implementation of the initiative and the impact on teachers and pupils. The section on *Into Practice* is the largest section and focuses on the long-term impact, measured in terms of process, product and staff outcomes. Research questions 4–6 are derived from this section and also require retrospective recollection over a period of three years.

*Pupils' outcomes* are evaluated at various levels as highlighted on the framework, and teachers' perceptions of pupils' outcomes are addressed in research questions 2 and 5. Whether or not there was a cascading of knowledge and practices is explored in the *Cascading* section on the framework, which forms part of research question 6, which is predicated on the literature highlighting the significance of cascading for sustainability of impact and initiatives.

### ***Data Collection Strategies***

Interviews were the main source of data collection in this research. 'Overall, interviews are an essential source of case study evidence because most case studies are about human affairs or behavioural events' (Yin, 2009: 108), 'where individual historical accounts are required of how a particular phenomenon developed' (King, 1994 in Robson, 2002: 271). This research explored teachers' perceptions of being involved in a collaborative PD initiative and therefore interviews were appropriate to ascertain in-depth insights from the participants (Denscombe, 2003) about the 'behavioural events' (Yin, 2009: 108) and the 'new shift system' (King, 1994 in Robson, 2002: 271). An interview is 'a conversation between people in which one person has the role of researcher' (Gray, 2004: 213).

There are different types of interviews based on where the control of the interview lies (Powney and Watts, 1987) or the amount of structure used in their format (Robson, 2002), namely: fully structured, semi-structured and unstructured. Structured interviews are focused interviews that guide the interview questions (Bechhofer and Paterson, 2000), and are necessary to make cross-case analyses (Bryman, 2004) where similar questions are asked of each case (Miles and Huberman, 1994). While the comparisons are more complicated than with statistical evidence, they equally may be 'far subtler and take account of finer shades of meaning' (Bechhofer and Paterson, 2000: 64). Therefore this research used semi-structured interviews, which facilitated probing more deeply into areas (Denscombe, 2003; Bryman, 2004) and providing 'scope for those interviewed to expound the full significance of their actions' (Pring, 2000: 39), and also facilitated discussions around any relevant information that may have been omitted in the literature review. Semi-structured interviews align themselves well with the interpretive researcher using a qualitative analysis to research (Bryman, 2004; Gray, 2004). They allow for an interest in the interviewee's perspective and an ability to respond to the direction of the interviewee.

The interviewer is prepared to be flexible in terms of the order in which the topics are considered, and, perhaps more significantly, to let the interviewee develop ideas and speak more widely on the issues raised by the researcher

(Denscombe 2003: 167)

### ***Focusing the interview questions***

Planning is needed to ensure that interviews relate to the research questions and objectives for data collection (Anderson, 1998). Therefore, with the help of the conceptual framework which included my propositions (Yin, 2009), an interview guide or schedule was developed (Bryman, 2004); see Appendix 1. It was important not to make the questions too specific or in a particular order, to allow for flexibility to probe for further information or detail, which is relevant to answering the research questions (Macintyre, 2000; Bryman, 2004; Gray, 2004). Furthermore, a strategy of identifying and addressing rival explanations for findings was necessary, to add to the trustworthiness of

the study (Hammersley, 2007; Yin, 2009). Therefore, questions were designed to answer each of the possible rival explanations; for example, did teachers participate in the study voluntarily or was there an element of coercion in doing so? These were predicted prior to data collection and included in the interview questions, so that information to refute or concur with them was included as part of data collection (Yin, 2009).

The questions outlined in the interview schedule had to be posited without bias (Yin, 2009). Therefore, more 'how' questions were used instead of 'why' questions that could make the interviewees defensive about their actions (Yin, 2009). Questions about the event and the interviewees' opinions and insights about the event are a less threatening way of getting answers than the 'why' questions. The interview guide began with a prescriptive list of introductory comments and questions gaining factual or 'facesheet information' (Bryman, 2004: 442) about the interviewee and setting, which may be relevant later for 'contextualising people's answers' (Bryman, 2004: 442). Such information included name, age, gender, number of years teaching, teaching role, and professional development undertaken to date. When designing the questions, I also felt it was important to use language that was understandable by the interviewees and to have questions 'as open-ended as possible to gain spontaneous information about attitudes and actions, rather than a rehearsed position' (Gilbert, 1993: 138).

A unique strength of the case study lies in its ability to deal with a variety of evidence, for example documents and interviews (Yin, 2009), as can be seen in Table 3.1. While interviews were used as the main source of data in this study, the use of new products (e.g., tangible outputs – policies) and new processes (e.g., processes for diffusion of practices) were used to corroborate findings of interviews (Yin, 2009) and thus provided triangulation of evidence by data type (Miles and Huberman, 1994). This evidence was an outcome of the interviews and not an explicit exploration of documentary data. Further triangulation by data source was provided between respondents arising from their various roles and views, thus adding to the validity of the research (Yin, 2003). By consciously engaging in triangulation,

collecting and double-checking findings from various sources throughout the data collection, the verification process was built in (Miles and Huberman, 1994).

### ***The pilot interview***

To test the suitability of the interview schedule, I carried out a pilot interview. This was undertaken prior to my first interview and was a very worthwhile experience, as it provided me with valuable insights into my own abilities as a researcher. This pilot interview proved to be too short, and while the quality of the information was relevant, I became aware of missed opportunities to probe more deeply into issues raised by the interviewee. After the interview was transcribed and the research questions revisited, I made notes where there could have been deeper probing with more open-ended questions; for example: 'Can you tell me more about . . . ?' I also became aware of the need to ask the interviewees about their understanding of collaborative practices among teachers. I felt it was imperative to know the contents of my framework and the literature review to enable appropriate prompts, as the interview guide was devised from these. The teacher chosen for the interview was a SEN teacher located in a primary school that was geographically accessible and known to myself (Yin, 2003). She had observed the collaborative practice which runs in my school and embarked upon it in her own school, and therefore was a suitable interviewee for this purpose. In this regard the pilot interview afforded me some insights which were used to make changes for later interviews.

### ***Sampling strategy***

The sampling used in this research was purposive, rather than random, given that it was a follow-up from an initial research project carried out in 2007–08 in which there was a class teacher (CT), SEN teacher and principal from five schools involved. Purposive sampling tends to be used in qualitative studies (Miles and Huberman, 1994), and as far as possible I wanted to interview the same three people in each of the five schools. Given the nature of case study research, I was also flexible in that if somebody else

had subsequently become involved in the initiative in these schools and was willing to speak about it, then I was open to that, as I was looking at the legacy of the PD initiative in these schools. This is reflective of within-case sampling that is theoretically driven where the main concern is to explore ‘the *conditions* under which the . . . theory operates’ rather than claiming generalisation of knowledge (Miles and Huberman, 1994: 29).

The five case study schools in this research were all urban disadvantaged schools, as explained in Chapter 1. Table 3.2 below shows the people in these schools who were involved in the original initiative, which started with a PD training day in December 2007. It is important to note that the principal in school A and a SEN teacher in School D who were advocates for the initiative – that is, they were responsible for bringing the initiative to the attention of others in their school – did not attend the PD training day. Only the principal and teachers implementing the initiative were entitled to substitution cover for the day. This gives a total of 19 participants, of whom 17 attended the day of training. School C had a principal, two CTs and two SEN teachers who attended the PD training day, as they intended to operate the initiative in two classrooms.

**Table 3.2 Schools and Participants in 2007**

	Principal	Class teacher	SEN teacher	Other	Advocate
<b>School A</b>	1	1	1	1 Literacy co-ordinator (LC)	Principal
<b>School B</b>	1	1	1		SEN teacher
<b>School C</b>	1	2	2		Class teacher
<b>School D</b>	1	1	1	1 SEN teacher	SEN teacher
<b>School E</b>	1 Acting principal	1	1		SEN teacher

The aim was to interview the CT, SEN teacher and principal from each of the five schools involved in the initial research project in 2007. However, on making initial contact with the schools, I was made aware that some teachers had retired or moved on. As my interest lay in the sustainability and legacy of the initiative within the institutions, I took the advice of one principal who suggested that it may be beneficial to speak with others in the schools who had since got involved in the initiative. I followed up on this, and it was

possible to interview seven other people who had subsequently become involved in the initiative, thus bringing the total to twenty as can be seen in Table 3.3 below.

**Table 3.3      2010 Interviewees**

	Principal	Class Teacher	SEN Teacher	Other	New	Total
School A	1	1	moved on	1 Literacy co-ordinator		3
School B	1	1	retired		1 SEN teacher 1 Class teacher	4
School C	retired	2	1 moved on		1 Principal 1 SEN teacher	5
School D	1	retired	1	1 Advocate		3
School E	1 Acting principal	1	retired		1 Principal 1 SEN 1 Class teacher	5

### ***Ethical considerations and access***

Ethical issues associated with qualitative research involve more human interaction and are more complicated and susceptible to risks (Howe and Moses, 1999). Stake (1995: 447) emphasises that researchers are ‘guests’ in the participants’ world and ‘manners should be good’ and ‘code of ethics strict’. Furthermore, ethical issues ‘should at all times be at the forefront of the researcher’s agenda’ (Hesse-Biber and Leavy, 2006 as cited in Creswell, 2008: 13) with reference to ‘respecting the rights of participants, to honouring research sites that you visit, and to reporting research fully and honestly’ (Creswell, 2008: 11), thus ensuring the essential factors of ‘integrity and quality and transparency’ (Economic and Social Research Council (ESRC), 2010: 3). Therefore, the study was conducted within BERA (British Educational Research Association) 2004 guidelines and the University of Lincoln research ethics policy (University of Lincoln, 2004), and the ethical issues were reflected on throughout the research process (Creswell, 2008). My ethical approval application (Appendix 2), which outlined the ethical issues involved and provided a risk assessment of same, was approved by the university’s ethics committee before the research was embarked on. Overall this research was ‘ethically viable given the societal norms’ (Anderson, 1998: 23) and ethically sound with no significant risks to

participants involved, but there were some potential risks that needed to be mitigated. Methods of mitigation that were employed included: seeking permission and informed consent for interviews, and providing a guarantee of confidentiality and anonymity.

I was aware that ethical issues related to the individual participants within the context of each of the five schools, and that access to both individuals and schools needed to be attained. As this research was a follow-up to previous research in these schools (as outlined in Chapter 1), initial contact was made with the principals of each school via telephone requesting permission to carry out follow-up research. An outline of the research aims was verbally provided to the principals at this stage. The principals spoke with each of the teachers involved in the initial research with a view to participating in this current study.

After teachers and principals gave verbal permission for access, they were sent an 'Information Permission Form' (Appendix 3) outlining the aims of the research, participants' rights, procedures for publication of findings, and the responsibilities of the researcher to guarantee confidentiality and anonymity (Bassey, 1995; Oliver, 2003) and to ensure that participants were giving informed consent. Confidentiality, which refers to an agreement between myself as the researcher and participants as to how the information would be used, was guaranteed. Anonymity, which refers to a guarantee from myself to the participants regarding the identity of the latter remaining anonymous and concealed (Anderson, 1998), was also provided. Participants are only identifiable through reference to the context, described as urban DEIS schools, of which there are many in Ireland. Each consent form was signed by me, the teachers and the principal of each school. As stated, confidentiality was afforded the highest priority throughout the research, with no interviewee being identified or identifiable in the publicly available written materials by anyone other than myself, at any stage of the study. Pseudonyms were used on the transcripts.

Furthermore, it was of significant ethical importance that participants did not feel coerced to participate, either by myself, as the researcher or by the principal of the school. I was aware of avoiding any potential harm or risk to participants (ESRC, 2010) and thus they were spoken with prior to the interviews to outline the research proposal, 'the purpose, methods and intended possible uses of the research' and ethical procedures involved (ESRC, 2010: 3), along with my own role in the research.

### ***Positionality***

I was aware of my positionality in this research, having been directly involved in the original research looking at impact on pupils' outcomes in 2007-08, which meant that some of the participants may have considered me an insider (Mercer, 2007). However, Mercer (2007: 7) argues that being an insider moves along a continuum, and that in some interviews particular topics may appear to 'engender a greater degree of insiderness'. This may be reflective of some teachers who may have considered me an insider, as I am also a teacher, while others may have been willing to view me as an insider for some questions and not for others. Furthermore, I was a little concerned that my role as an outside 'expert' in collaborative literacy practices (King and Gilliland, 2009) and the fact that the initiative was funded by the teacher union may have had an effect on power relationships (Mercer, 2007). However, this may have been stronger for the initial project in 2007-08 when there were no pre-existing relationships.

While I acknowledge my direct involvement in the original initiative in 2007-08 and have reported its success (King and Gilliland, 2009), the focus now on sustainability somewhat distances me from the initiative. Furthermore, seven of the participants interviewed were not known to me. On returning to the schools three years later, I was aware of the potential for problems with being seen as an insider, which may have led to informant bias where some participants may have consciously or unconsciously stated what they thought I wanted to hear instead of expressing their own beliefs and opinions (Mercer, 2007). To militate against my positionality, I was committed to

ensuring that the findings were a true reflection from an etic perspective, the participants' perspectives, and not an emic perspective, my own (Anderson, 1998). Therefore, I had to be aware of reciprocity in terms of sharing experiences, as this too may have led participants to say what they thought was wanted in an effort to please, thus reducing information to explain the phenomenology of change (Creswell, 2008). While I was committed to reporting the research findings accurately and honestly, it was decided not to give participants a copy of the transcripts for approval, as

the perceptions of individual informants may be ambivalent at any given moment, may change over time, and may contradict one another to such an extent that consensus is impossible  
(Mercer, 2007: 13)

'Validation is a flawed method' (Silverman, 2000: 177) as it does not authenticate the data, it only increases it (Mercer, 2007) and it can also raise issues of cost and time on the researcher's behalf.

### ***Administering the interviews***

All interviews except one were conducted in the schools, in the autumn term of the 2010–11 academic year, and were scheduled to last for an hour. Because of a participant's family bereavement, one interview was conducted at a slightly later date by telephone. All reasonable steps were taken to ensure that interviews were carried out in the absence of interruptions. I tried to create a comfortable atmosphere by making the interviewees aware of my expectations and by being cognisant of their expectations, so that they would be willing to share their insights (Bechhofer and Paterson, 2000). Nonverbal communication forms an integral part in creating the right atmosphere and setting the tone for the interview (Denzin and Lincoln, 1998), and therefore I was conscious of being encouraging and having open and active body language when responding to participants' answers.

The opening conversations with participants centred on confidentiality and anonymity, along with how and where the research findings would be published. Consent for recording interviews was obtained and explanations

were provided for why the interview was being recorded, what the recordings would be used for, where they would be stored, and when and how they would be disposed of after transcription (Oliver, 2003). Participants were made aware that they could ask for the recorder to be turned off at any stage during the interview or when answering a particular question (Gilbert, 1993), and that they could withdraw from the interview at any stage and request that their data not be used (Oliver, 2003). One participant was not comfortable to be recorded, but had no difficulty with notes being documented during the interview. Furthermore, some questions were omitted if it was felt they were inappropriate with a particular person in a given situation, and others were added to probe more in areas that may not have been considered (Robson, 2002). In this way, semi-structured interviews were more flexible and adaptable than structured interviews. The emphasis was on understanding 'what the interviewee views as important in explaining and understanding events' (Bryman, 2004: 438).

## **Data analysis**

I adopted a system for data analysis that draws heavily on the framework by Miles and Huberman (1994). I was very aware that 'the strengths of qualitative data rest very centrally on the competence with which their analysis is carried out' (Miles and Huberman, 1994: 10), and therefore I had to employ a rigorous, robust, transparent and systematic approach to data analysis (Robson, 2002; Bryman, 2004). This was achieved through the use of a computer software package, QSR NVivo 8, which facilitated collection and storage of all data in an organised manner under 'tree nodes'. While NVivo 8 was very helpful for this and for exploring relationships and connections in the data in a structured manner, it cannot interpret the meaning of the data, so I initially began looking for meanings from the content of the data – 'core elements that explain what the thing is and how it works' (Denscombe, 2007: 247), explanations, not just descriptions (Anderson, 1998; Macintyre, 2000) – a process which was planned and designed before data collection (Gray, 2004).

Having visited school A and completed the first three interviews, I transcribed them so that contextual cues and nonverbal cues were not lost (Silverman, 2000). Insertions were added where appropriate to aid authenticity and so that it was comprehensible to the reader in the way that it was intended to be by the interviewee (Walford, 2001), for example '*. . . working collaboratively has improved my teaching skills, yes*' might be taken as an emphatic positive finding from a transcript, but with my relevant notes inserted may read very differently:

*. . . working collaboratively has improved* (raised eyebrows, tone of sarcasm, hmmm) *my teaching skills, yes.*

NVivo 8 facilitated this recording of field notes and any initial relationships noted in the data. On initial readings of the transcripts, I used descriptive or topic codes which were attached to words, sentences or paragraphs (Miles and Huberman, 1994; Punch, 2009); for example: '*we were looking for ways of upping our literacy scores*' (LC, School A) was coded under 'driving force' as it was cited as a reason for embarking on the initiative.

This type of research is referred to as 'inductive' research, where the categories or codes are not predetermined (Bryman, 2004; Gray, 2004) and it is consonant with a subjective epistemology and an interpretivist understanding of participants' meanings. This method allowed me to use an open-ended and flexible approach, although interestingly the initial codes were quite reflective of the headings on my conceptual framework in Figure 3.2, with additional categories of codes added that were relevant for answering my research questions. For example, I devised a code called 'Positive Factors' which was related to answering research question 3; see Appendix 4, which outlines the first round of codes. Some data excerpts had both descriptive and inferential codes, thus showing two levels of analysis happening concurrently (Miles and Huberman, 1994). This alignment between codes that emerged from the data and the propositions on my framework was highly significant, given that I wanted to evaluate the framework as part of this study to assess its suitability of use by schools when evaluating the impact of their PD. While this subsequently guided my

analysis, as the headings in my framework matched some of the codes in my data, my aim was to confirm or refute the pre-existing propositions on the conceptual framework as a suitable framework for evaluating impact. I was also looking for any new concepts from the data which show impact of PD, to add to the framework.

Any miscellaneous pieces of data which did not appear to relate directly to the research questions were coded under 'free nodes' at this stage. On subsequent readings, the relationship between some codes appeared and memos were developed (Punch, 2009). For example, the following passage was coded in the first round under 'Positive Factors':

*I think if you have something structured that teachers will feel safe with. The other beauty of the Peer Tutoring was it was a limited period. So that if a teacher felt if this doesn't work, oh well I'm not stuck with this forever.*

(Margaret, Principal, School A)

However, participants both within and across case study schools cited different 'positive factors' associated with the initiative, and a pattern arose between them. Positive factors were related to aspects of leadership, the initiative itself and the teachers, thus leading to a second round of codes, which can be seen in Appendix 5. This iterative process of data analysis helped to move the data forward (Miles and Huberman, 1994) as shown by the above extract, coded in the second round under 'Positive factors – Initiative – Structure' as it related to the structure of the initiative. Clear explanations for each code in Appendix 5 were devised and can be seen in Appendix 6. Provision of these appendices provides a paper trail, giving other researchers the ability to transfer or relate the procedures and findings of this initiative to other cases (Lincoln and Guba, 1985).

These definitions were then used to code the data, and this led to data reduction through merging and omission of certain codes that had similar meanings. For example, under 'Staff outcomes' at a 'Professional level' the code of 'Knowledge – Conceptual level' was omitted and merged under 'Use of knowledge and skills – Routine level' and/or 'Use of knowledge and skills

– Refined/Integrated level’. If teachers use their knowledge and skills at a routine or refined/integrated level, it means that they have conceptual knowledge of the initiative. ‘Pedagogy’ was also merged under these headings for the same reasons.

In this way memoing and coding began together at the beginning of analysis, with the former based more on ‘theorising’ (Glaser, 1978 as cited in Punch, 2009: 180) and reaching a further level of abstraction in the analysis process (Punch, 2009). Priority was given to memoing and dating them (Miles and Huberman, 1994) as a way of tracking my thoughts on reading through the data. The data was recoded from the beginning for consistency to ensure trustworthiness (Miles and Huberman, 1994). Furthermore, I presented my coding system to my research peers on the doctorate programme in an effort to get objective opinions about the suitability of the process and codes for this research. It encouraged me to show an audit trail of the process and therefore added to the trustworthiness of the study (Lincoln and Guba, 1985). See Appendices 7 and 8 for the third round of codes and their definitions.

Analysis thus included data reduction as described above, data display through the revision of codes and their definitions, and drawing and verifying conclusions, all of which happened concurrently (Miles and Huberman, 1994). This data reduction happened throughout the analysis and involved studying the data and gleaning meaning from it through editing, summarising and segmenting the data without removing it from its context (Punch, 2009). As this was an iterative process, which began at data collection stage, some of the questions were adapted in response to new dimensions or information gleaned from initial interviews (Bryman, 2004) and were then used in subsequent interviews; for example, with the issue of ‘cascading’ it was important to see if values were passed on or just information at a procedural level. This prompted asking other participants about how and why this happened. The drawing and verifying of conclusions (Miles and Huberman, 1994) stage of data analysis involved moving from the raw data to theory generation in terms of my conceptual framework. This happened concurrently with data reduction and display (Punch, 2009) and it consisted

of looking for consistencies across each of the five cases to make any claims (Miles and Huberman, 1994; Macintyre, 2000; Punch, 2009).

### ***The Professional Development Impact Evaluation Framework***

Data analysis was an ongoing process which involved merging, additions and omissions of codes throughout, which resulted in the final round of codes as in Appendix 7. This in turn culminated in the codes on the framework (Figure 3.2) being changed to reflect the codes arising from the data analysis. The framework in Figure 3.2 guided interview questions in this study, and interestingly the data from these questions revealed answers that reflected only certain parts of the framework, with some sections merging into others and other sections being omitted as with the codes from data analysis. The initial codes reflected some of the headings on the framework but, as with all inductive research, these were altered, refined, changed and omitted as the process of analysis developed. An evaluation of this final framework is discussed in Chapter 5.

### **Quality of Research**

Case study research is sometimes criticised by researchers working in other traditions who claim it can lack reliability and validity (Hammersley, 2007). However, reliability is not generally considered a relevant concept in qualitative studies. Replicability is central to reliability and this is not something that can ever be achieved in interviews; instead the emphasis is on a trustworthy qualitative study (Hammersley, 2007). This research adhered to the following criteria for establishing trustworthy qualitative studies:

- 'A clear statement of aims and objectives' (Chapter 1)
- 'A clear description of context' (Chapter 1)
- 'Inclusion of sufficient original data to mediate between evidence and interpretation' (Chapters 3 and 4)
- 'Explicit theoretical framework and literature review' (Chapters 2 and 3)
- 'A clear description of sample' (Chapter 3)

- 'A clear description of methodology and systematic data collection' (Chapter 3).

(Hammersley, 2007: 99)

Opposition also exists around case studies with regard to generalisations and lack of rigour, but some argue that 'assertions' (Stake, 1995) or 'replication' can be claimed when two or more cases are shown to support the same theory (Yin, 1994: 31). Results from each of the five case studies in this research provide extensive evidence to back up findings, and conclusions were reached only after the findings were tested or confirmed through checking rival explanations, variables, and feedback from interviewees where necessary (Macintyre 2000; Miles and Huberman, 1994; Punch, 2009; Yin, 2009). This provided triangulation or more credible data (Lincoln and Guba, 1985) and added to the internal validity of the research (Yin, 2009) and its suitability for replication. Having other researchers or colleagues question the findings by suggesting alternative explanations further helped in this regard (Hammersley, 2007; Yin, 2009).

To answer the need for rigorous and systematic data analysis and validity, it was important to identify the causes of impact which are referred to as 'independent variables' and the effects known as 'dependent variables' (Gray, 2004: 74). The causes helped to answer research questions 3 and 6 about what factors help or hinder the development and sustainability of the PD initiative. The effects or outcomes helped answer research questions 2 and 5 about the initial impact and longer-term impact of being involved in the collaborative PD initiative. While these variables may have been similar in each of the five cases, there were some variations within them which will be outlined in Chapters 4 and 5.

The need for construct validity, which refers to 'identifying correct operational measures for the concepts being studied' (Yin, 2009: 40), is also important. The research was exploring the impact of collaborative PD, and to do so the terms 'collaborative PD' and 'impact' were clearly defined in Chapter 2 along with an exploration of how impact can be assessed. In this regard, a

‘Professional Development Impact Evaluation Framework’ (Figure 3.2) was developed to explore the changes or development in teachers’ professional learning. The relationship between the factors that helped or hindered this development or change and its impact were also explored vigorously to show validity (Yin, 1993).

## **Conclusion**

This chapter provided a detailed account of the philosophical underpinnings, approach, methods and analytical processes of the research study. To explore teachers’ perceptions of the impact of a collaborative PD initiative on their own professional learning, it was necessary to use qualitative methods, semi-structured interviews, and a multi-case study approach. This also facilitated alignment between the epistemological, ontological and research approaches, in that they are subjective and this research was looking at the subjective views of the participants of the collaborative PD initiative. The multi-case-study approach provides rich evidence to aid transferability or replication of findings. This chapter explained how data was collected to generate evidence to address the research questions. This material and the responses to research questions are addressed in the following chapter.

## Chapter 4 Findings

### Introduction

This chapter presents an analysis of the data collected from each of the five case study schools, and it systematically sets out to answer each of the research questions as presented in Chapter 1. This thesis explored how teachers' professional learning may be developed and sustained through a collaborative professional development (PD) initiative, and it sought to:

- explore the impact of this collaborative PD initiative on teachers' learning in five urban disadvantaged schools in Ireland, using the devised 'Professional Development Impact Evaluation Framework';
- focus on short-term and long-term impact in an effort to fill the research gap relating to sustainability of new practices in schools;
- explore the factors that helped or hindered the development and sustainability of PD practices.

This chapter examines how and why schools got involved in the literacy initiative in 2007 (using peer tutoring as explained in Chapter 1), its impact and critically its sustainability. The research draws on teachers' perceptions of outcomes, as they are deemed highly significant in the effectiveness of PD activities (Opfer and Pedder, 2011) and in teachers' motivation to engage with and sustain the use of practices (Boardman *et al.*, 2005). It is also important to explore the processes that enable or inhibit the development and sustainability of these practices. The research questions reflect an iterative process in which the literature review and the framework were developed alongside each other, and from which the research questions emerged. Table 3.1 in Chapter 3 shows this link.

The data from each of the five case study schools is presented and discussed concurrently, to highlight similarities and differences both within and across the five schools. This data will be descriptive and will facilitate an exploration of any patterns or themes emerging from participants' responses.

As indicated in Chapter 3, the evidence is based on interviews with 20 participants, 13 of whom were involved from the outset plus seven others who subsequently became involved; six of the original nineteen participants had moved on or retired.

### **Short-term Implementation: How did the collaborative PD initiative develop in each of the five schools?**

In four out of the five case study schools, a teacher was responsible for bringing the literacy initiative to the attention of the principal and seeking their support. Of these four teachers, three were SEN teachers and the other was a CT with a post of responsibility for English within the school. All four principals were immediately willing for their school to take part in the initiative, thus reflecting the importance of what Darling-Hammond and McLaughlin (1995) in Klinger *et al.* (2003: 411) identify as 'top-down support for bottom-up reform'. School A was the exception, with the principal introducing the initiative to the literacy coordinator (LC) in the school in a top-down approach and asking her to support a CT and SEN teacher to take part in the initiative. This research therefore had four bottom-up approaches to change and one which was suggested from the top down.

### **Why did the school and the individual teachers become involved in the initiative?**

The PD initiative was centred on improving pupils' literacy levels, which the data shows aligned well with the motives of a large proportion of teachers, as is evident in what Laura (LC, School A) says: '*We were looking for ways of upping our literacy scores*', and is also reflected by Jane (SEN, School C): '*. . . the literacy levels of this school, we felt it was a priority for us*'. These schools are designated disadvantaged and, through self-evaluation based on literacy scores, identified literacy as a priority. However, this process of school self-evaluation for DEIS schools was part of an external process which was being supported by the DES, who encouraged these schools to devise action plans based on their priorities. While the above statements

echo the literature regarding content being a highly influential feature of PD, with teachers being more committed to PD that is relevant to their needs in the classroom at a given time (Darling-Hammond, 1997; Desimone, 2009; Opfer and Pedder, 2011), perhaps teachers' awareness of pupils' scores as stated by Laura above 'encouraged them to feel that the onus was on them to do something about it' (Bubb and Earley, 2008: 19). Interestingly, it is the product and not the process of teacher PD that motivated the teachers to engage with this initiative. Sarah (Advocate, School D) adds to this by highlighting the idea of teachers being influenced and trusting what others say 'works' (Landrum *et al.*, 2002):

*I was very taken by your [researcher's] presentation [at a conference] mainly from the point that you made that it was when you reflected on a particular class that you had to deal with and there were such great needs in that class. And you said it couldn't be dealt with on a withdrawal basis really in its totality, that you needed to have interventions for a larger number of children. And that is constantly our problem in this school . . . so it was an initiative that I was really, really interested in.*

(Sarah, Advocate, School D)

It is important to note that she also acknowledged '*this is research and this is best practice, and why not let's give it a go*' – an interesting facet which contradicts the literature suggesting that most teachers tend not to consider it important that initiatives be evidence-based (Boardman *et al.*, 2005). What is more interesting is Sarah's perception that this is 'best practice' because it is research-based: it reflects debates in the literature on teachers embracing initiatives in a technical versus critical way.

The data from principals suggests there is consensus about the literacy content also being a motivating factor to participate in the initiative, as can be seen in Fergal's (Principal, School D) response: '*We are a DEIS school so there is huge emphasis on literacy*'. This may be seen as evidence of Björkman and Olofsson's (2009) argument that alignment between teachers' and principals' priorities is a key driving force, providing strong supportive pre-conditions for capacity-building for change. Furthermore, it is pertinent that two of the principals had personal interests in the area of literacy. One

spent time as an English advisor to schools on behalf of the DES in Ireland, for the introduction of the primary school revised curriculum of 1999, and asserted as a result: *'literacy was my hobbyhorse'* (Martina, Principal, School B). She further added that her school was also pushing literacy because it is a DEIS school and *'so the two combined really well'*. This alignment of an internal and external agenda which had become a 'hobbyhorse' provided the setting for engagement with the literacy initiative. Muriel (Principal, School A), who had completed her Master's with paired reading as a focus, reported: *'I'm very interested in literacy'*.

Thus, not only was there alignment professionally between teachers and principals in this regard, but there was also a fit with the personal interests or beliefs of at least two of the principals and the focus of the initiative. So alignment at different levels was in evidence here, with teachers and principals seeing a 'fit' at curriculum level and at a personal level. Personalising PD is important and yet this is not hugely in evidence in PD that is provided for teachers, especially if we look at the list of in-service programmes (over 30 at one stage) which have been delivered to all teachers in Irish schools since 1999, with the aim of supporting teachers to deliver *'externally determined goals'* (O'Sullivan and West-Burnham, 2011: 113). Some teachers may perceive this approach as conforming to departmental and governmental regulations under a managerialist system (Crawford, 2009). Further evidence of alignment with teachers' personal motives was evident in the data from Imogen (SEN, School D):

*I also felt it would be good to go into people's classrooms and collaborate with a teacher in her classroom, and that it would be good for me, good for the CT and ultimately be a lot better for the children than withdrawing a small number of children.*

and Oonagh (CT, School E):

*I suppose that was my first year as a dipped teacher [i.e., having completed probation], out expecting to kind of improve and help the children improve their literacy. So I suppose I was looking for help in how I could do that . . . because I felt at college, the training was limited in kind of developing reading, like it was non-existent really.*

However, some other accounts that reflect personal and professional needs as motivating factors may be seen as evidence of teachers being under pressure:

*At the time we were embarking on our DEIS . . . action plans and one of the areas we identified was literacy levels in our school.*

Researcher: Do you think that [being a post holder] was part of the driving force for you getting involved in this?

Declan: *I think so. I think so. Yeah.*

(Declan, CT, School C)

While Declan had the autonomy to embark on this practice, through his post of responsibility, it is not clear whether this freedom was due to a form of distributed leadership (Dinham *et al.*, 2008), which some argue is part of a 'new managerialism' where teachers are managed to ensure improved classroom practice (Gewirtz and Ball, 2000), or whether it represented a more meaningful empowerment of teachers to choose practices that align with their needs. Similarly, Pat below articulates clearly that he was under some pressure to participate in the initiative.

Pat: *The fact that I was asked [by the principal] and it was my dip [diploma] year so I wasn't going to refuse.*

Researcher: Were you permanent at the time?

Pat: *No.*

Researcher: So from that point of view would it help out . . . ?

Pat: *Yeah. In terms of whether I might get a permanent job, was I flexible enough to take on something extra and different, be flexible.*

(Pat, CT, School A)

So while the above examples reflect the importance of aligning PD with teachers' personal and professional needs, they may also indicate a culture of 'new managerialism' with a focus on teacher accountability and performativity. However, despite Pat (CT, School A) being personally

motivated to gain security of tenure, he was also interested in it as a means of self-improvement:

*. . . but also, I'm interested to take part in anything different or extra that might help my own teaching and learning. So on reflection . . . I assume that those feelings were underlined in the choice.*

This highlights again that driving forces are seldom based on one thing but perhaps a combination of forces, as outlined earlier by Martina (Principal, School B). Furthermore, two of the principals were thinking long-term and saw this as a vehicle for introducing collaborative practices between CTs and SEN teachers in the school. Not only were these principals interested in the product (literacy initiative), they were also interested in the process (the collaborative aspect). Martina, (Principal, School B) said collaborative practice '*was something that I was trying to bring in gradually and this was a perfect vehicle*' to foster cooperation between CTs and SEN teachers, and might lead to more collaborative models of providing support for pupils, and therefore she was happy to empower her teachers through distributed leadership (Dinham *et al.*, 2008).

Similarly, Muriel (Principal, School A) was personally interested in collaborative practices and felt Pat was a young teacher and that this collaborative aspect would provide him with support: '*I understood it was very daunting for a young teacher.*' She was also aware that he '*likes to talk about projects. He's good that way.*' Therefore it would enable more awareness of the reading practice among the staff, which was a motivating factor for the principal, as she states:

*. . . and to get them thinking it's not just a class textbook, there's much more to this. It's one thing to give the skills of reading, but if the children don't have a mechanism or a system for practising reading . . .*

Enlisting Pat to the initiative for these reasons may be more reflective of managerialism than empowerment, as he clearly felt under pressure to

participate. Interestingly, none of the teachers involved cited the collaborative aspect of the initiative as being a reason for opting into it.

In summary, it is possible to identify a number of motivations provided by teachers and principals as to why they embarked on the initiative:

- it had a literacy focus which had a 'fit' with their needs;
- there was trust in what other teachers said 'works';
- there was some pressure from the principal to engage with it;
- the process of the PD initiative was collaborative.

So in these ways it is possible to see how the initiative aligned with the personal and professional needs of teachers and principals in a variety of ways, thus showing the power of intrinsic and extrinsic factors for motivating teachers to engage with change (NCCA, 2010) and the importance of having a personalised approach to PD (Bubb and Earley, 2008). Furthermore, it points to a challenge to the dominant direction of PD provision towards standardised practices under an umbrella of accountability and performativity (Ball, 2003; Purdon, 2004) and argues in favour of personalisation of practices and support for bottom-up approaches to PD.

### **Short-term impact: How did the initial participants describe the impact of the collaborative PD at the conclusion of its implementation?**

Within the framework for evaluation, impact was identified and assessed at four levels: personal, professional, pupils' outcomes, and collective outcomes.

#### **Personal Perspective**

A significant majority of the teachers reported enjoying the PD initiative and feeling that it was worthwhile. Positive feelings and beliefs were expressed in relation to classroom teaching and pupils' learning, with many of the CTs finding it suitable for meeting the various literacy levels within their

classrooms, which for some was the motivating factor for engaging with the PD.

*I remember thinking . . . that it was a good initiative because at the time I had a very mixed class . . . the learning support teacher [SEN] [who was withdrawing pupils for reading] and I were reading with the class and it was very fractured. It didn't make sense to me. The whole approach to reading was difficult. And after doing the peer tutoring I felt that at least I know that every child in the class was gaining something from the reading experience and that they were doing it in my presence, that it wasn't outside the class. So it gave me a better idea into approaches to reading.*

(Pat, CT, School A)

Meeting pupils' needs in an inclusive setting may also have facilitated teachers' collective responsibility for pupils' learning. Further evidence of teachers' changes in

beliefs in classroom teaching practices can be seen from Declan (CT, School C), who articulated:

*But this was a completely new departure in that the children were working in pairs and they were reading to each other. And it made more sense, I felt, and it was something I would never really have done prior to that.*

and from Muriel (Principal, School A), who reported:

*It got us talking. So, we changed I think a dynamic in our school of thinking just of the text book. . . . I think most teachers now take for granted . . . need a wide range of books and strategies.*

The extracts above also demonstrate shared pedagogy relating to pupils' learning, as espoused by Smith (2007). These personal expressions of beliefs and feelings are highly significant given that the literature points out that '*no single factor influences the instructional setting more than a teacher's knowledge and beliefs about teaching and learning*' (Lipson and Wixson, 1997: 128, in Schmidt *et al.*, 2002), and yet concerns have been expressed in the literature about evidence relating to change showing little change in teachers' beliefs and values (Gleeson and O'Donnabháin, 2009: 37). Attitudes and beliefs are individual, and evidence suggests they cannot be

imposed upon teachers against their will even in a strongly managerialist culture (Evans, 2008).

### **Professional Perspective**

Impact on teachers at a professional level was measured by exploring teachers' levels of understanding and use of new and improved knowledge and skills (as outlined in the framework and explained in Appendix 8), to ascertain whether teachers had procedural or conceptual knowledge of the initiative and subsequently the impact of this on their practice. All of the teachers, and all but one of the principals, demonstrated that their quality of use and understanding of the initiative was at a refined/integrated level (Hall and Hord, 1987), with examples of teachers using aspects of the initiative in other areas of their teaching, as highlighted by Pat (CT, School A):

*I felt by the end of the eight weeks [of implementing the initiative] . . . [that it] taught me how to teach reading in a different way outside of the programme.*

*I didn't have a full understanding of what reading was, and I think it took something like a good approach to make me realise that it wasn't just kind of hearing reading . . .*

Another example of use of practices outside the initiative was in Oonagh's (CT, School E) comments:

*It gave me . . . a scheme to work from . . . the whole idea of the personalised dictionaries was new . . . that was something totally new and that was one of the things I took from it, that every class that I've had since got a small personalised dictionary. It . . . could be used for all the work that they were doing in class not only just for their reading.*

Evidence of pedagogy and PCK (Smith, 2007) relating to the need for more repetition of practices for automaticity was reported by Niamh (CT, School B):

*We seemed to learn a lot all the time in classes, but the idea of revision I felt was important. . . . They were revising words over and over again, whereas in the past you would learn some new words, you would highlight them in the texts and that would be that and there was no follow-up.*

Laura (LC, School A) showed evidence of reflective practice and PCK leading to justifying subtle changes, which is also part of the refined/integrated level of use and understanding (Hall and Hord, 1987):

*The children's training wasn't enough I think. If we were to do it again I think maybe we would even do far more dictionary work before we would start the peer tutoring.*

While teachers largely demonstrated refined/integrated levels of use related to the practice, some felt it was '*a bit complicated, or they felt under pressure*' (Muriel, Principal, School A). This pressure was reported to be arising from teachers wanting '*to do it right and they were following exactly what needed to be . . . or they felt needed to be replicated*', which presented challenges resulting from their pupils' low baseline levels. This was echoed by Sarah (Advocate, School D), who felt that maybe their pupils '*were incapable of managing the whole structure of it*'. There are often challenges as teachers engage with new practices at procedural levels initially before moving to more conceptual levels over time. Other difficulties were reported and are explored later in this chapter.

### **Pupils' outcomes**

Findings show a consensus in terms of pupils' enjoyment, as reflected in comments from Laura (LC, School A): '*The kids just loved it. So we found it very good*', thus indicating a strong propensity to view impact on pupils in terms of affective and psychomotor outcomes (Guskey, 2002), with fewest comments centred on quantifiable or cognitive outcomes. Declan (CT, School C) stated: '*There seemed to be a high level of motivation as well. It certainly was good for the children's self-esteem*', while Pat (CT, School A) reported: '*In terms of their organisation [skills] and in terms of their social development I think it helped a lot*', and Jane (CT, School C) concluded that '*every child achieved something*'. These comments are in agreement with Rhodes *et al.* (2004), who posit that relying solely on quantifiable learning outcomes for students is not appropriate for measuring impact on pupil improvement. This is interesting considering the pressure for accountability,

performance management and an emphasis on ‘*what works*’ in terms of measurable performances and outcomes (Ball, 2003: 222). Further evidence of this is in Sarah’s (Advocate, School D) statement where she demonstrates the power of teacher professional judgement over test scores:

*The children would say themselves that they did really enjoy it. We weren’t as happy when we looked at the scoring . . . but the children enjoyed the experience. We weren’t put off by those results. We still felt we made an impact on the children . . . . Your results aren’t shown on a MICRA-T [standardised test] score.*

These comments are also reflective of teacher professional responsibility (Sahlberg, 2011) using self-evaluation relating to the impact on pupils, a process which has been described as a form of ‘*internal accountability*’ (Sugrue, 2011: 62). Teachers’ self-evaluation and perceptions of pupils’ outcomes are highly significant, as teachers’ beliefs about pupils’ outcomes impact on continued use of practices (Boardman *et al.*, 2005; Baker *et al.*, 2004). What was perhaps even more surprising, given the concerns in the literature about increasing external accountability (Sugrue, 2011), was that only one of the original principals commented on impact in terms of pupils’ outcomes.

### **Collective outcomes**

The findings from all schools reflect a positive impact at a collective level, with evidence of new and varied collaborative practices that followed participation in this initiative. Four of the original principals interviewed stated that there was no team teaching in existence prior to this initiative, thus confirming the OECD’s (1991) observation of the ‘legendary autonomy’ of Irish teachers and that of O’Sullivan (2011: 112), who stated that the culture and practice in Ireland is that of ‘a national teaching environment where isolated practice still predominates’. However, a small proportion of teachers had some experience of working collaboratively within the classroom in a ‘helping’ style format, as opposed to a structured system where teachers were team teaching or co-teaching (Murawski and Swanson, 2001):

*When we did it the learning support [SEN] teacher did her own work with her own group, whereas this way [this initiative] I knew what was going on . . . we were all just working together on something rather than each doing our separate things inside the class.*

(Pat, CT, School A)

The teachers in school C had embarked on team teaching previously but in different formats:

*Team teaching has been in the school for a while and I suppose there was still always a concern about what was the best model for team teaching . . . so we were sort of looking at different ways of doing it and I felt this [initiative], first of all it was very, very structured.*

(Jane, SEN, School C)

What was very much in evidence from the data was the move from a situation where team teaching had largely not been achieved and where schools still had ‘not cracked the code of getting beyond the classroom door on a large scale’ (Fullan, 2007: 9), to one where team teaching and collaborative professionalism (O’Sullivan, 2011) are the norm. This cultural change is highly significant given Irish teachers’ ‘legendary autonomy’ (OECD, 1991) and subsequent use of collaborative practice for ‘exchange and coordination’ rather than for ‘more complex professional collaboration’ (Gilleece *et al.*, 2009: 12; Conway *et al.*, 2011), as can be seen in Imogen’s (SEN, School D) comments where she describes teachers being:

*a lot more open to other [collaborative] initiatives in the school . . . and as a result of that . . . we set up a book club in the school where we collaborate now with all different teachers.*

An unexpected consequence of this initiative was the development of a mentoring aspect, which was reported by Oonagh (CT, School E):

*That [team teaching] was new and . . . I really liked the fact that there were other people, especially other skilled people. . . . They had a wisdom and knowledge and I was able to learn from them as well. So I found it, as a new teacher, very very beneficial because I was able to learn lots from experienced people.*

This mentoring facilitated the transfer of skills from the SEN teacher into the classroom (Guskey, 1991), with a focus on engagement with pedagogy (Conway *et al.*, 2011) and a move from isolated practice to collaborative practice through the use of a specific initiative or focus (Hayton and Spillane, 2008), as further highlighted by Niamh (CT, School B):

*She [SEN teacher] had obviously great ideas . . . how to decode the words or explain the words. I actually learned a lot myself. We got on very well and it was great to . . . be able to go to Dorothy [SEN teacher] to ask for advice.*

In summary, teachers described the impact of this collaborative PD initiative at the four levels identified on the framework: personal, professional and collective levels as well as outlining the impact on pupils. At a personal level, teachers felt the practice was worthwhile as it enabled them to meet their pupils' needs and their own needs. What is highly significant here are the findings related to teachers' changing beliefs and values about pupils' learning and about classroom practice; for example, the value of pupils working in pairs and the need to move from a reliance on the textbook in the teaching of reading. This in turn was reflected at a professional level in teachers' refined/integrated levels of understanding and use of pedagogy and PCK which, it is argued, plays a crucial role in quality teacher education (Conway *et al.*, 2011) and school improvement (Smith, 2007).

Teachers' focus on pupils' outcomes centred largely on affective and psychomotor areas, with teachers' professional judgement being accepted over test scores and also being valued by principals. However, teachers' use of self-evaluation for pupils' cognitive outcomes is also indicative of teachers' professional responsibility towards pupils. At a collective level, teachers reported that participation in this collaborative PD initiative resulted in team teaching practices, showing a move from isolated privatism to collective responsibility (O'Sullivan, 2011) where teachers co-operatively learned from each other in an informal mentoring way, thus helping to strengthen the social capital in the school (Sahlberg, 2010). These reports are significant given that the literature is replete with calls for teachers to work

collaboratively and yet little guidance or support is offered on how to do this. Highly significant is the impact of the collaborative PD initiative having extended beyond the initiative itself: teachers using skills from it across other subject areas; a movement away from textbooks; mentoring and other collaborative practices among teachers; other teachers implementing the practice; and changes in teachers' beliefs.

### **What were the key factors that shaped the changes in teachers' professional practice and learning during the implementation period?**

While drawing upon the experiences of the case study teachers to explore the process of how the initiative facilitated a change in teachers' professional practice and learning, it was found that the positive factors unequivocally outweighed the negative factors faced by teachers.

### **What factors had a positive impact on the implementation of the initiative?**

The five case study schools are designated disadvantaged, with literacy being a priority and many of the classes having varying abilities. It is evident throughout the interviews that the alignment of teachers' needs with this literacy initiative provided the key to facilitate its implementation. Not only did it align with the needs of the teachers and pupils alike, pupils' enjoyment and engagement impacted on teachers' motivation and beliefs about the initiative, an issue that is not very prevalent in the literature when it comes to positive factors for shaping changes in teachers' practice. Perhaps this is related to pupils' cognitive outcomes being more important to teachers in cultures of accountability and performativity.

It is worth noting here that this initiative facilitated an alignment with individual and school-level learning needs, even though teachers only cited their own individual needs in relation to their practices. This is consistent with the literature that posits that teachers are inclined to view PD benefits in terms of individual fulfilment (Pedder *et al.*, 2008) and they are more

concerned with what happens at classroom level than nationally or globally (Kitching *et al.*, 2009; Morgan *et al.*, 2009). However, principals were happy to endorse participation in the initiative, as it aligned well with school-level learning needs, as discussed above in relation to why schools got involved. This may be reflective of the Irish education system where school performance is not directly tied to the processes of promotion and rewarding and punishing schools based on external accountability measures, as is the case with reform trends evident in many parts of the world (Sahlberg, 2007). While Irish schools have not escaped the notions of performativity and accountability, via standardised testing measures and published school inspection reports, it may affirm Kitching and colleagues' (2009) assertion that these have had a less acute impact in Ireland.

The structure of the initiative had a positive impact on its implementation, with teachers describing it as '*feasible*', '*focused*', '*very structured*', '*very workable*' and having a '*clear framework*'. This appealed to teachers as they knew exactly what to do and when to do it, and each teacher knew their role in the team teaching aspect of the initiative. This is important; as one teacher pointed out, '*a lot of things that come into the school for you to do, it's not so clear, the process of how to get it done*' (Pat, CT, School A). However, it may also challenge the need for '*developing constructivist practices in our classrooms*' instead of '*walking the walk of the transmission model of learning*' (O'Sullivan, 2011: 123) and may be somewhat reflective of teachers wanting autonomy but equally wanting to be told how to do it.

Another interesting factor cited by Alicia (Acting Principal, School E) as being positive was that it was for a limited number of weeks: '*There's a beginning and an end to it, very important*', and therefore teachers were not embarking upon something indefinitely. There is little evidence in the literature of this aspect of length of implementation of changes impacting on teacher engagement with and sustainability of practices. Furthermore, the initiative lent itself to formative and summative assessment where teachers could see the pupils' progress, a factor which is highlighted in the literature as being important to teachers (Boardman *et al.*, 2005). Positive findings were also

reported in terms of the initiative being collaborative, as teachers were learning from each other, as discussed under *Collective outcomes*, above. This is interesting given that only two principals reported this as a motivating factor for embarking upon it initially.

The findings from the analyses of positive factors show a large proportion of the interviewees citing teachers' openness and willingness to try new things as being instrumental in embarking on this initiative. Laura (LC, School A) says of the CT: '*. . . [Pat] was very, very willing to give it a go, which was a huge plus. I think Pat's openness to it . . . he's a young teacher which I think was a big factor*'. Interestingly, she was the only teacher who felt that this willingness was equated with being a young teacher. However, this openness and willingness was further endorsed by other teachers. Examples from across the spectrum are Niamh's (CT, School B) view that '*there is a huge openness to ideas*' and Martina's (Principal, School B) use of the words '*willingness of the teachers, willingness to spend time making sure it ran properly*' and Fergal's (Principal, School D) point about the teachers being '*open and willing to try new things*'. These examples are reflective of the literature that highlights the importance of each individual's enthusiasm and willingness for self-improvement (Blase and Blase, 1998; Bolt, 2007), which can be difficult to achieve in a culture of managerialism and performativity. It is important to note that not all schools have a culture of openness and willingness. However, the literature identifies leadership as having a highly significant impact on teacher motivation and willingness to engage with PD (Fullan, 2001a; Kervin, 2007), and this again is very strongly reflected in the responses from principals themselves, with Muriel (Principal, School A) stating:

*I think if you mandate it then you always get resistance. I do think who's at the top is very influential.*

and Martina (Principal School B) adding:

*Like it's not just a case of this is a new way of working and this is what you have to do. I think you really have to look at your personnel and you have to see who can work together.*

All four principals who were involved in the original initiative in 2007 were unequivocal in their thoughts regarding teachers' willingness to be involved for the initiative to work; this is summarised by Fergal (Principal, School D), who argued: *'You're not going anywhere by cracking the whip on anything like this'*. This is interesting given the debate between managerial and democratic professionalism.

These comments reflect a form of transformational leadership (Ingram, 1997; Bass and Riggio, 2006) or democratic professionalism (Kennedy, 2007) that the principals used in attempting to achieve general agreement among teachers and leaders regarding goals and ways to achieve them. Further evidence of this can be seen in teachers' comments about principals being open to ideas and supporting teachers by providing time for them to collaborate for planning and reflecting. Niamh (CT, School B) reflects this when she states:

*Martina [the principal] is great. She's just very good for being open to ideas to try things. We were facilitated in having the opportunity to do it [collaborate] . . . within school time.*

For at least one of the teachers it was the outside influence of the INTO's involvement and promotion of the initiative that was a positive influence on teachers' willingness to get involved. *'Sometimes when you have a bit of influence from outside it's easier to start something within the school'* (Sarah, Advocate, School D). This was also reflected by her principal and it was important to Muriel (Principal, School A), who felt the INTO stamp on it gave it a professional status, an *'imprimatur'*. Interestingly, both Sarah and Muriel were responsible for bringing the initiative to the attention of the teachers in their respective schools. The importance of the union providing some legitimacy for the project also highlights the significance of cultural context. Alexandrou's studies (2007, 2009) of Scotland have identified the involvement of the teachers' union in PD issues as being highly supportive of promoting teacher engagement in PD. However, studies of the same issue in

England suggest a more complex picture, with some evidence that union involvement attracted management hostility (Stevenson, 2012).

The INTO also funded this initiative by providing all materials, the input of a project facilitator (the researcher), and time off for teachers to attend the PD training. Further support was provided in terms of two school visits during the ten-week period and access to support via email and telephone. Having resources provided for the schools was seen by Laura (LC, School A) and Jane (SEN, School C) as critical to its implementation, a factor that is also evident in the literature (Bolam *et al.*, 2005). Jane also suggests, much like Rhodes *et al.* (2004), that the support of a facilitator during the ten-week initiative was invaluable:

*[When] you start to do a project there's always things that crop up. You know, it's only when you're doing it that you find out, okay, I need more this or this isn't working or we need whatever it is.*

Overall, the positive factors reflect many of the motivating factors for teachers' willingness to embark on the initiative, thus highlighting the importance 'for the Irish system to pay close attention to the relationship between the dynamics of teacher motivation and the ethos of performativity' (Morgan *et al.*, 2009: 203). Mandating changes that are not aligned with teachers' needs in a culture of standardisation and accountability may result in teachers' resistance to engage with change or in 'innovation but no change', resulting in short-term improvement but no real long-term gains (Conway *et al.*, 2011: 94), thus impeding the path to school improvement. However, providing teachers with support for change and building a culture of trust where principals and the education system value teachers' opinions of what works for their pupils may result in education reform. In summary, many positive factors were reported by participants:

- it had a 'fit' with their individual and school-level needs
- teachers were motivated by their pupils' enjoyment and engagement
- the structure of the initiative at various levels: feasible; time bound; collaborative; roles clearly identified; and it facilitated formative and summative assessment

- teachers' openness and willingness
- leadership support
- funding and resources
- outside influence of INTO.

### **What factors had a negative impact on the implementation of the initiative?**

While the evidence overwhelmingly points to the positive factors, it is important to reflect upon some aspects of the initiative that were seen as more challenging. In school A, for example, two of the teachers felt that more time was needed to train the children for the initiative than what was allocated for training, due to the low literacy baseline of the children. This, along with high rates of absenteeism among some pupils, presented some difficulties for the teachers. However, Pat (CT, School A) argued:

*that's not so much a negative, it's more something that you as a teacher, you know, you have to take into account when deciding whether you'll do this.*

This shows the space for teacher agency, which reflects Crawford's (2009) idea of noting the power of individual teachers to mediate challenging factors, which involves teachers acting in intentional ways to 'shape their own responses to problematic situations' (Fallon and Barnett, 2009: 12). However, the principal was aware of the challenges the teachers faced, and stated: '*If you were there you would advise them, if you could've been on the ground, but I needed them to try [to work it out themselves]*'. Interestingly, this principal had not attended the PD training day.

In contrast to this, in school B no '*huge negatives*' (Niamh, CT) were reported apart from timetabling the initiative to enable the teachers to team teach, a factor that was also highlighted in schools C and E. This can always be difficult to achieve, as schools are complex, busy, structured organisations. The principal of School B felt:

*. . . we weren't maybe organised enough. You know that I could have made it easier if I had organised the specific time maybe.*

Yet this was refuted by all teachers who argued that without her support it would not have happened. This is indicative of a supportive principal and reflective once again of transformational leadership, where leaders and teachers are united in trying to achieve things (Bass and Riggio, 2006).

Noelle (CT, School C) showed the power of human agency to mediate the difficulty of pairings among some pupils, where personalities were clashing. The problems faced by school D were largely centred on pupils' absenteeism, behaviour and skills baseline. Yet again, teachers mediated these factors and implemented the initiative successfully. However, Sarah added that much of the organisation was left to herself as the advocate of the initiative and the SEN teacher that year: a cumbersome task. Overall, the main challenges lay in the low baseline levels of the pupils, with teachers feeling they needed more time for training; and timetabling, which may be reflective of schools having very tight structures and thus not being able to incorporate change easily.

### **Longer-term development: How the story has unfolded**

A crucial dimension for school improvement is the capacity to sustain changes in practices, thus allowing them to have a real and long-term impact. The importance of the longer term is key to lasting improvement, and hence a focus of this research was to explore whether schools sustained their new practices. The extent to which teachers maintained their changes in practice and learning over time, and the factors that supported this, were also explored. The schools were revisited three years after the initial PD training day in December 2007; the focus was to see if schools had sustained the use of the PD practices and, if so, how they did that. Table 4.1 below shows (in red) the teachers who were still using the practice in their school.

**Table 4.1 Teachers using the collaborative practice**

	<b>Class Teacher</b>	<b>SEN Teacher</b>	<b>Other</b>
<b>School A</b>	1	moved on	1 Literacy co-ordinator
<b>School B</b>	1	retired	
<b>School C</b>	2	1 moved on	
<b>School D</b>	retired	1	1 SEN teacher (advocate)
<b>School E</b>	1	retired	

This table clearly shows that four out of the five schools and ten out of thirteen original participants (six retired or moved on) trained in 2007 were still implementing the practice three years later, albeit at differing levels. Interestingly, the three participants not using the practice were from school A. Diffusion of practices had occurred in the remaining four schools, as outlined in Table 4.2, which shows the additional teachers who had subsequently engaged with and implemented the practice since 2007 until the time of data collection in 2010.

**Table 4.2 Additional teachers who engaged with the practice**

	<b>Principal</b>	<b>Class Teacher</b>	<b>SEN Teacher</b>	<b>Other</b>	<b>Additional Teachers</b>	<b>Total new</b>
<b>School A</b>						
<b>School B</b>	1	1	retired		2 SEN 3 Class	5
<b>School C</b>	retired	2	1 1 moved on		1 Principal 4 SEN 4 Class	9
<b>School D</b>	1	retired	1	1 SEN teacher (advocate)	5 Class	5
<b>School E</b>	1 Acting principal	1	retired		1 Principal 2 SEN 1 Class	4

The number of teachers involved had doubled since 2007, with each school having managed this in a different way. Before exploring this, it is equally important to analyse what happened in school A, where the initiative did not survive. On completion of the initiative in 2007–08, the CT was very keen to embark on it again, and indeed it was written into the school policy as an initiative to be used for literacy in third and fourth classes. It was not sustainable in this school as it is a collaborative practice that requires at least two teachers to be timetabled for team teaching, and Pat (CT) reported:

*'unfortunately, it's not me who decides the learning support [SEN] [timetable] in the school'. Despite this, he tried to do it on his own the following year, but felt it did not work. Furthermore, being a DEIS school resulted in other literacy initiatives being introduced into the school, and the principal argued it was not possible to timetable it as 'we all felt a little bit submerged'; 'We had to buy into those [other initiatives].' 'There was this expectation you would improve your results'. This may be indicative of an emerging managerialism in Irish education, with schools under pressure to increase pupil achievement in standardised test scores. Further evidence of this was added:*

*It was a little frightening because remember people had never been put under any kind of expectation of attainments . . . in the word of the business world or the management speak of targets, attainments, and that's what the inspectors are looking at as well.*

This extract from Muriel (Principal, School A) clearly demonstrates the pressure to focus on externally driven initiatives resulting in the discontinuation of the collaborative practice that the teacher wanted to continue, again showing the creeping impact of a standardisation-focused approach to education reform in favour of one which is based on trusting teachers, as in the Finnish approach to education reform (Sahlberg, 2007). It also highlights the pressure principals are under to perform and yet provide teachers with freedom, to be creative and take risks, which are essential components of school improvement.

Interestingly, very different versions of the impact of state-mandated literacy initiatives (for example First Steps, 2004) being introduced were offered by the other four DEIS schools who saw alignment between initiatives:

*We have different initiatives at most levels . . . third and fourth [class] would have the Peer tutoring . . . and it's for a set number of weeks. It's just a matter of scheduling and I think different things suit the teachers at different levels*

(Principal, School B)

This scheduling is further reflected in Sandra's (Principal, School C) comments:

*We're involved in First Steps. . . . There was too much going on left, right and centre, so this year we've just streamlined it to each year group . . . so we have included it [Peer Tutoring (PT)] as the third and fourth class extra initiative that's going on.*

Similarly, Sarah (Advocate, School D) describes how they view both initiatives: *'That [First Steps] aligned with Peer Tutoring has helped [improve sight vocabulary].'* They too have PT running in fourth and sixth class yearly, while School E also have it scheduled in their fourth classes yearly, with the principal stating that *'if the teachers value it . . . then I'd be happy to support it.'* This is in direct contrast to the emerging managerialism above, and more in line with a trust-based professionalism. Interestingly, she too was quite emphatic about the importance of timetabling it at the beginning of the year to ensure it happens. It is clear therefore that four out of the five schools have it scheduled into their yearly plans to ensure it takes place. While School A had it in their school plans, the process was not in place to facilitate it being sustained. This may be reflective of Bubb and Earley's (2010) products and processes, as outlined on the framework. This seems to be a decisive factor in its success for sustainability, and is further reflected in Pat's (CT, School A) comments: *'schools have so much going on that they . . . need to prioritise certain things'*. The above comments highlight Sahlberg's (2007) point on the significant role of leadership in trusting teachers and valuing professionalism in judging what works best for their pupils.

In summary, four out of five schools have sustained the practice, with the number of teachers who now implement the practice having doubled since 2007. However, in School A the practice was not sustained, largely due to external pressures to engage with mandated practices and a lack of leadership support.

### **How have teachers maintained these changes over time?**

Despite changes in leadership and staff turnover, including loss of original advocates of the initiative in the schools, teachers in four of the schools have maintained the changes in practice and learning in some form. This has necessitated a diffusion of practices to additional teachers, which has been

shown in Table 4.4. Interestingly, Pat (CT, School A), who is teaching where the practice has not survived, argued that *'these strategies are great but they need to be shared. There needs to be a culture of sharing. But there also needs to be a mechanism to share'*, which may be reflective of Earley and Porritt's (2010) 'process'. Pat further added:

*. . . if you want to draw this out in third and fourth class every year here, you need a teacher designated to train up the teachers, to go in and start it, to go in and check every week. To take the teacher out and evaluate at the end, to reflect and then do the same process every year. Because, I mean, if you don't have that process, things just flitter away.*

This diffusion of practices has taken place in each of the other schools where teachers were supported by the principal to share the practice. The teachers who subsequently got involved did so for similar reasons to the initial cohort of teachers; that is, they reported it aligned well with their needs at that time. However, they had the added benefit of hearing positive results about it, a finding which supports the literature suggesting teachers rate 'teacher-to-teacher talk as highly significant in shaping professional practice' (O'Sullivan, 2011: 116).

*I heard the results from teachers who had done it before were very good and positive towards improving literacy.*

(April, CT, School E)

However, another SEN teacher (School E) engaged with it as she felt it was part of her role to help out in the class with the weaker readers. She was asked to participate and did so willingly as she was interested in seeing what it was about, but she did not receive any training prior to helping out. Interestingly, she did not continue with the practice in subsequent years, as she believed she could better meet the needs of her pupils when working independently. Perhaps feeling under pressure to engage with the initiative and having no training were instrumental in the lack of sustainability of the practice. Mandating changes seldom results in a change in beliefs (Evans, 2008).

In summary, changes were maintained through leadership support for diffusion of practices to others and through additional teachers' willingness to engage with the practice as a result of hearing positive views about it from other teachers.

### **Longer-term impact: How do teachers describe the impact of the collaborative PD initiative?**

Sustaining change is challenging and yet important for improved pupils' outcomes and school improvement. This section aims to explore how teachers described the impact of the collaborative PD initiative at each of the four levels identified in the framework: personal, professional, pupils and collective.

#### **Personal Perspective**

At an affective level the expression of changing beliefs and attitudes towards classroom practice, pupils' learning and collaborative practices, as suggested by Cordingley *et al.* (2003), was very strongly reflected in the responses from a large proportion of participants, with many stating that they were now more open to trying new things – as reflected by Jane (SEN, School C):

*It broadens your mind to what's out there, to what you could try or could do and . . . do you know you learn from new things basically. So I suppose by doing that you would be open to other things.*

One common response from participants was predicated on the value of pupils' working in pairs from a social and academic point of view and from a classroom teaching point of view, as it lends itself to meeting the individual needs of pupils, thus showing evidence of teachers' shared pedagogy and PCK (Smith, 2007) and a move away from 'pedagogical solitude' (Shulman, 1993).

This change in values is expressed by Imogen (SEN, School D): '*perhaps it alerted me a lot more to the value of getting children to work collaboratively*

even in the learning support [SEN] class', and is further reflected in Natalie's (CT, School B) comments:

*You can't just expect to get a class, a reader and that everybody should be on the same level because that doesn't make sense. And I know before I would have done Peer Tutoring I would have probably had that idea.*

What is significant is that the advocates in each school who were interviewed believed in collaborative practices and had worked collaboratively within the mainstream classroom previously. This appeared quite important given that teachers' openness and willingness to engage with new practices and change were cited by participants as being critical in engaging with this PD initiative in the first place. This extract from Sarah's (Advocate, School D) interview provides a clear example of this view:

*I just don't like the idea of going into your room and closing your door in isolation. I've always worked collaboratively and . . . I find it fulfilling for my own personal development in the school, professional development.*

Sarah encouraged others to get involved, and subsequently several changed their beliefs regarding collaborative practices despite not having participated in them before and being reluctant to do so. This may be reflective of Guskey's (2005) point relating to changes in practice occurring first followed by pupils learning, followed by attitudes and beliefs, because experience shapes the attitudes and beliefs. However, Sarah believed first and then encouraged others to engage with the practice, who subsequently changed their beliefs, thus showing the complex cyclical process of change (Opfer *et al.*, 2010). This raises the issue of linking the personal and professional in 'winning teachers' hearts and minds' as well as achieving behavioural changes for effective PD (Evans, 2010: 6). Furthermore, it questions whether this is possible to achieve in a culture of standardisation and performativity.

### **Professional Perspective**

The data provides many examples of 'deep learning' (Bolam *et al.*, 2005) and teachers operating at refined/integrated levels of use and understanding

(Hall and Hord, 1987), as explained in Appendix 8, almost without exception. Each of the schools reported various modifications they made to the practice, to suit the individual needs of their pupils in their settings, thus showing evidence of collaborative reflective practice (Desimone, 2009), 'knowledge-in-practice' (Cochran-Smith and Lytle, 1999) and PCK (Smith, 2007), which are cited as essential elements of helping pupils learn. Imogen (SEN, School D) demonstrates the changes applied and shows the importance of having the freedom to decide not to implement the initiative in third class, as the baseline of their pupils was too low:

*I felt three minutes was far too long for the tutee to concentrate, so I have changed it, tweaked it slightly . . . they read four pages each. . . . I'm constantly thinking of ways to make it better for them. We decided to go ahead with fourth and sixth class rather than third class.*

Other changes were expressed by Noelle (CT, School C):

*You could tweak and change it a little bit . . . maybe the top two children in the class to get them working together . . . but it's only in your class you'll figure that out. [We also added] reviews of the book, written reviews.*

These modifications to the practice made it suitable for teachers and pupils in their own contexts, a factor which is crucial for sustainability, as what works in one context may not work in another and teachers need to have flexibility to make changes to meet their needs, as demonstrated by Fionnuala (SEN, School B):

*You have to manoeuvre out of a thing as structured as it is if they [pupils] are not getting this, this way, then you have to move that way.*

Whilst the data strongly identifies teachers justifying their changes to the initiative, it challenges the one-size-fits-all approach which provides standardisation in favour of allowing teachers to be creative and take risks, and to use their professional judgement. This possibly reflects Hargreaves and Fullan's (1992) stance on the importance of context and moving away from a centrally prescribed curriculum, to one which allows teachers to

professionally adapt the curriculum to meet their local needs (Priestley *et al.*, 2011). No one thing works everywhere, and while these four schools have sustained the practice they have done so in different ways, thus raising the more important question of under what conditions does this work (White, 2006). These conditions will be explored later.

Further evidence of teachers' use of the initiative at a refined/integrated level can be seen in that all of the original teachers involved use principles and procedures from the initiative in other areas of the curriculum, the most common being the practice of pairing pupils, as highlighted by Declan (CT, School C):

*It would have an impact on my teaching style . . . that I would now allow the children sometimes even with their texts in the classroom that they would do some shared reading, as opposed to always being a whole class group.*

Many teachers saw this as an ideal way to differentiate and foster social skills among pupils. While the literature identifies the necessity of 'deep learning' (Bolam *et al.*, 2005) and conceptual knowledge (Hall and Hord, 1987) for sustaining practices, the data reveals that this alone is not enough to sustain such practices, as can be seen in school A where the CT showed evidence of quality of use and understanding at a refined/integrated level and yet had not sustained the practice. However, it is interesting to note that he does use aspects of what he learned from the initiative in other areas of his teaching.

Despite some teachers changing their beliefs, it may not be enough to sustain practices – a finding reflective of Opfer and Pedder (2011), who argue that teachers' beliefs tend to be greater than their practices. What may be significant here is that the principal did not show evidence of deep learning related to the initiative, perhaps as she did not attend the initial PD day where this was explored, and subsequently her support for sustaining the practice was not available; this highlights the importance of the role of leadership for deep and lasting change (NCCA, 2010). The support from

leadership in the other four schools was in evidence, despite the fact that two of these began their job as principals subsequent to the initiative being introduced. All showed evidence of deep learning and knowledge of the initiative at a refined/integrated conceptual level, as can be seen from Martina's comments (Principal, School B):

*[It is] something that's growing and changing. We haven't just adopted the practice and kept it exactly as it is, we're looking to see how it suits our school, how it can best suit the children.*

It can also be seen in Sandra's (Principal, School C) comments: '*I could see this as a really good programme for the children from a language point of view as well because they're learning from their peers.*'

### **Pupils' Outcomes**

On analysing the interview data relating to the teachers' perceptions of pupils' outcomes, it is clear that teachers are unequivocal in using their own judgements as a means of measuring pupils' outcomes, a finding which is advocated in some literature (Fallon and Barnett, 2009). However, it does not necessarily answer the need for quantifiable outcomes in the present climate of performativity and accountability. What it does highlight is teachers' own beliefs and self-efficacy in relying on self-accountability (Stoll and Fink, 1996: 168) which, in this study, largely related to affective and psychomotor outcomes (Guskey, 2002) such as enhanced motivation, improved attitudes, better organisational skills and improved social skills.

*Socially it has helped a lot of children. If you saw the way that they work together now compared to the initial peer tutoring sessions that were held, they're fantastic in working in groups [for other projects].*

(Sarah, Advocate, School D)

The impact on pupils' self-esteem and self-efficacy was also strongly reflected in participants' responses, albeit to differing degrees, as can be seen from the comments below:

*This is something that they can do and they can say, 'Oh, look, I read 18 readers, I've read 18 books in the last ten weeks', and that's a nice feeling for them.*

(Declan, CT, School C)

*They certainly do get a great sense of achievement out of it and a feeling of 'I'm as good as anybody else.'*

(Martina, Principal, School B)

Each school also discussed the impact in terms of pupil enjoyment, engagement and motivation, as can be seen in Declan's (CT, School C) comments:

*95% of the children that did it were very motivated by it, love it, wanted to continue doing it. They loved the reading material, were keen to get their homework passes, were working hard in class time, and to me that's what . . . that's all you can look for in any project.*

What is interesting to note in the data is teachers' lack of use of empirical data for cognitive outcomes – as was used in the initial PD initiative in 2007–2008, when pupils were pre- and post-tested. Teachers recounted differing qualitative versions of the impact at a cognitive level, which Norris (2004) argues is not necessarily bad practice. Examples from across the spectrum are Declan's (CT, School C) view that it had an impact on pupils' *understanding* of text, and Sarah's (Advocate, School D) use of phrases like '*sight vocabulary has improved*', better '*word attack skills*', and being '*able to syllabify has helped their spelling*', while Alice (Principal, School E) recalled that teachers said they '*felt pupils gained all sorts of skills*' and the CT was '*very happy with the results for her children*'. Whilst Niamh (CT, School B) agrees that pupils are enjoying and benefiting from the practice, she also said that she is looking for a group test to use pre- and post-practice so that '*you can stand over it to parents*' to have '*evidence that it has worked*'.

This raises the issue in the literature of using practices that are evidenced-based or not, and the need for teachers to learn how to gather and process data to aid in reporting of pupils' learning (O'Sullivan, 2011), which would lend itself to teachers using professional responsibility towards pupils'

learning instead of having test-based accountability externally imposed on them (Sahlberg, 2007). This research shows, however, that while most teachers valued non-standardised testing measures as evidence of success for pupils, some felt they should quantify results to have as evidence for parents, which may be reflective of an emerging accountability culture and the increased calls for the use of evidenced-based practices (Carter and Wheldall, 2008).

### **On a collective level**

Teachers' participation in this collaborative PD initiative has resulted in a significant impact both at an interpersonal capacity level (Frost and Durrant, 2003) and at an organisational level. All principals cited the key aspect of involvement in the initiative and *'the biggest thing for me as principal'* (Martina, Principal, School B) as being the impact at a collective level, with *'a bigger openness to working together and to team teaching'* (Alice, Principal, School E) and having a *'greater sense of team between support staff [SEN] and class teachers'* (Martina, Principal, School B). Fergal (Principal, School D) commented on the collaborative aspect being *'part of what we do'* and highlighted teachers' *'willingness to support each other and to realise that you can't do it all by yourself and you don't know everything'*.

This is quite significant given that only school C had embarked on team teaching practices prior to this initiative, and furthermore none of the teachers cited the collaborative practice as a motivating factor for participating in the initiative. However, it must be noted that this initiative cannot be seen as wholly responsible for these significant changes, as schools were trying to move in this direction and the timing may have coincided. Equally it may be reflective of the cyclical nature of teacher change, which involves an interplay between teachers' beliefs, practices and contexts – the schools in which they work (Opfer *et al.*, 2010). This is reflected in Muriel's (Principal, School A) comments:

*We've moved totally now. It's all collaborative today. It wasn't then. I just know we've shifted enormously in our thinking. I can't say where it began or ended.*

So while school A have not continued the specific collaborative practice in this initiative, they now have '*collaborative learning embedded in the system*', which was one of the principal's motivating factors for engaging with the initiative. Perhaps this echoes the comments of the NCCA (2010: 15) when they acknowledged that sustaining change can be difficult and that it '*more often than not involves jumps and starts, leaps forward, steps backwards*'. It also highlights that change is contextual and influenced by a myriad of factors at play which can result in change having an impact at different levels intrinsic to the change initiative and outside of it.

Teachers also acknowledged the impact at a collective level, with Imogen (SEN, School D) stating that '*it has impacted on all teachers . . . opened up teachers' classrooms*'. However, she qualifies this by adding '*I often think it would have happened anyway because of young teachers . . . so [I'm] not sure was it caused by Peer Tutoring*'. A conflicting opinion of this was offered by Fergal (Principal, School D), who felt the practice was a good opportunity for the new teachers to learn: '*We've had quite a few changeovers of staff the last 5–6 years, and it's good for younger teachers that they learn a lot from watching older teachers in operation, and it's on-the-job training*'. Laura (LC, school A) suggested that young teachers may be more open and willing to engage in collaborative practices, but the literature suggests that beliefs are often more in evidence than practices (Opfer and Pedder, 2011), and therefore openness and willingness may not be enough for practices to be undertaken and sustained. Conversely, the principal suggests that newer teachers benefit from the experience of observing more experienced teachers, a finding supported by teachers and principals as cited in the extract below about mentoring:

*I think the mentoring end, you know, from a teacher point of view, was . . . good at the time, and that's not intended really, with it at all but it was good at the time and I think it would be worthwhile for any . . . kind of NQT to have it, but to have*

*somebody coming in who's far more experienced as a teacher, to lead it . . . an unintended consequence that is actually very good.*

(Alicia, Acting Principal, School E)

This unintended consequence of mentoring was reported by a number of teachers and may have had an impact in terms of sustainability of the changes (Guskey, 2002). While most teachers embarked on this initiative for its literacy focus, the impact extended to other areas of the curriculum outside of this focus and to collective practices.

A large proportion of teachers spoke of changes at an interpersonal level, with comments such as: '*It definitely gave me a positive [attitude] towards the co-teaching*' (Fionnuala, SEN, School B); and: '*it made me more comfortable with collaborative approaches*' (Pat, CT, School A). One exception to this was the SEN teacher in School E, who said she was '*more comfortable with withdrawal [model of support]*'. It is interesting to note that this teacher was not involved in the initial PD training and viewed herself as a '*helper*'. Her quality of use and understanding shown throughout the interview seemed to be at a mechanical level, with concerns expressed regarding the day-to-day logistics and organisational issues and no evidence of understanding at a conceptual level. When changes in practice precede changes in teachers' beliefs and understandings, difficulties arise with continued implementation of practices (Huberman and Miles, 1984; Webb, 2007). This may suggest that diffusion of practices requires teachers to be supported to move from procedural level to conceptual levels of understanding (Baker *et al.*, 2004). Indeed, this was considered by Niamh (CT, School C), who reported:

*The following year the resource [SEN] teacher I suppose hadn't enough training on it and wasn't too sure of it. I felt that she wasn't as into it as I was. Purely because I don't think, she hadn't the day above in Dublin and that's one thing I think is important if people are starting it. The DVD is good but it's not enough, do you know. I do think you need a day on it.*

In general the interviewees all suggested that their involvement in the initiative had led to changes at a cultural level, with a large-scale move from

individual practice to a 'more complex professional collaboration' (Gilleece *et al.*, 2009; Conway *et al.*, 2011) involving team teaching and mentoring in literacy and maths – and with teachers enjoying these practices, which is possibly indicative of O'Sullivan's (2011) argument that teachers prefer collaborative practice above privacy. This is further reflected in Muriel's (Principal, School A) comment: '*I think we are social beings*'. Not only has there been a change in practices that have spread to other areas outside this initiative, but changes in beliefs and values, with teachers having new skills and more confidence, as shown above at the personal level. This multiplier effect reflects a cultural change (Stoll and Fink, 1996) which has facilitated the development of Fallon and Barnett's (2009) concept of a generative authentic learning community.

### **What were the key factors that shaped the long-term development and sustainability of teachers' professional practice and learning?**

Four out of the five schools continued, some years later, to use the professional practice in some form. However, it is important to focus on the conditions that facilitated this sustainability and the factors that hindered it.

### **What factors had a positive impact on the long-term development and sustainability of teachers' professional practice and learning?**

The evidence is unequivocal in highlighting the importance of teachers' openness and willingness to sustain the practice. Sustaining practices can be challenging when staff turnover is high, as can be seen in School B where the SEN teacher had retired and the CT was out on carer's leave. However, such was the willingness of the CT (Niamh) for the practice to survive that she came into school and '*showed Natalie [another CT] how to do it for a few days. I think maybe I came in then once a week when she was doing it . . .*'. Her reason for doing so lay in her belief about its benefit for the pupils. This necessity for teachers to believe in it was echoed by many of the teachers and principals. Natalie subsequently took ownership of the practice and was responsible for it spreading to other teachers in the school.

Similarly, in the other three schools one person assumed ownership of it, organised it and provided the resources for the other teachers so that it would survive. This requires quite a bit of organisation relating to resources and ensuring the practice spreads to others in a meaningful way. Each of the teachers was willing to do this, as they believed in the practice and wanted it to survive. However, it is important to remember that Declan and Sarah, both advocates in their schools (C and D respectively), had posts of responsibility, and therefore this may have also met their need to fulfil their duties as part of their posts. All teachers and principals felt it was important to have one person to '*guide*' or '*drive*' it (Noelle, CT, School C), as it needs resourcing and to be timetabled each year in advance.

Over time, with many teachers in each school having experienced the initiative, it seems, interestingly, to have become '*more collaborative now than it was*' (Sarah, Advocate, School D), with more teachers taking ownership rather than leaving it solely to the 'advocate' or 'driver'. In this way it is leading to more of a whole school approach to collaborative practice rather than being led by one particular person, something which Oonagh (CT, School E) feels is important for sustainability. There was a consensus among principals that it is more effective coming from the teachers than from themselves and that the informal talk among staff about the success of the initiative and their enthusiasm for it led to others' willingness to get involved. This is a finding consistent with Landrum *et al.* (2002), who argued that teachers tend to embark on new practices in their classrooms based on the opinions of colleagues. This '*word of mouth*' (Alice, Principal, School E) amongst teachers regarding the practice was cited by all schools as having an impact on its sustainability.

While teachers were willing to engage with and sustain the practice, consensus was reached among participants that sustainability of the practice was predicated on meeting pupils' needs and teachers' individual needs. Many of the teachers cited a huge need for meeting the needs of a very diverse group of pupils in a coherent way, something which teachers' perceived this initiative was able to achieve. This illustrates the point that

teachers do *'what works'* based on the accounts of others (Boardman *et al.*, 2005: 168): *'If people see something, that it works and that it's useful, then they want to continue it'* (Alice, Principal, School E). This may be seen as evidence of Bubbs and Earley's (2008) argument for providing a personalised approach to PD and a move away from a dominant trend towards standardisation and accountability. It may also be indicative of teachers trusting their own judgement regarding its suitability for pupils' progress (Sahlberg, 2007).

Declan (CT, School C), like others, strongly indicates that this PD initiative *'fits well'* with other programmes within national strategy that are mandated and funded by the DES for urban disadvantaged schools, thus providing coherence through aligning PD with individual teacher goals and state requirements, as advocated by Desimone (2009). Evidence would suggest that this alignment with other practices may have been facilitated by teachers and principals having conceptual knowledge of this practice before embarking on other programmes and then being able to link them together in a coherent way, as was discussed under the *'Professional perspective'* section. This may also be reflective of teacher agency (Fallon and Barnett, 2009), where teachers found the *'space'* (Bell and Bolam, 2010) to adapt national strategy in a way that is consonant with their professional values and context (Booth, 2003).

In addition to having conceptual knowledge of the practice, principals in these case-study schools facilitated the collaborative practice in many ways. Only one of the five principals was the advocate for this initiative, thus showing that the other four supported teachers' wishes to engage with and sustain this PD initiative. This required support in many ways from principals who provided time for teachers to plan, reflect and model practices for other teachers to facilitate dissemination of practices. In the words of one principal:

*[It's important] that there's no pressure on anybody. I also have stepped in if they needed someone. I didn't do it last year but in the first three years I used to step in now and again because I wanted to know what was happening . . . and hearing about it*

*wasn't enough, so . . . I asked if I can come in or would it upset things. . . . I had a role . . . it was great . . . because that was the easiest way for me to learn definitely about it. . . . If anyone was starting it now . . . that the principals should release teachers, enable discussion, not to underestimate the time that is needed to make sure that . . . everything will go smoothly.*

(Martina, Principal, School B)

This need for non-contact time for collaborative planning is a view that is echoed in the literature (Cordingley *et al.*, 2003) and by the other three principals. It also makes teachers feel that what they are doing is valued (Stevenson, 2008). Equally the above extract shows the principal's desire for conceptual knowledge of the practice, which may have helped sustain it. Martina also reiterated the point about teachers not being under pressure to participate in the practice – and even through the rippling of the practice to other teachers, principals only approached teachers they knew would be willing to engage in the collaborative practice. While principals were aware that practices should not be mandated for teachers and that '*some people work better together than other people*' (Sandra, Principal, School C), they also acknowledged that this collaborative practice had now become '*accepted practice, so they [teachers] just take it for granted that it's going to happen*' (Martina, Principal, School B) – a stance that is reflective of the embedded practice in all four schools.

In many cases it was teachers approaching other teachers to participate, with the support of the principal, thus showing alignment between teachers' and principals' values. Furthermore, it shows principals enabling a trust-based professionalism (Sahlberg, 2007), which they in turn need to be afforded by the DES if there is to be a move away from the global education trend of standardisation and accountability. There is strong evidence to show that this was a 'bottom-up' practice with 'top-down support' (Darling-Hammond and McLaughlin, 1995, in Klinger *et al.*, 2003: 411). Despite a change in leadership in two of the schools, the practice has been sustained. However, it was obvious from the data that the collaborative practice aligned well with the new principals' beliefs, values and need to focus on literacy, as reflected in Alice's (Principal, School E) comments:

*We've put a big focus on whole school approaches to literacy and numeracy. So that has been a big, a big factor. It fits well into it. . . . It fitted right into it really.*

The influence of leadership is strongly cited by participants as a positive factor in sustaining the practice in schools. Principals' beliefs in the initiative and their support in terms of endorsing it among the staff (Imogen, SEN, School D), providing time for planning and reflection (Natalie, CT, School B) and resources (Niamh, CT, School B) were cited as being very important in facilitating sustainability of the practice. Interestingly, similar views were expressed by principals themselves about providing support, as can be seen in this extract from Alice (Principal, School E):

*If the teachers value it and they see it as something important and . . . good, and they're willing to do it, and put all that effort into it, I'd be happy to support it.*

Not only does this show how these principals supported the teachers, it also highlights their trust in teachers' values and opinions, which is again indicative of a trust-based professionalism. It is worth noting that principals in each of the four schools facilitated this non-contact time for collaboration within school time initially. However, it has not been possible to sustain this in most of the schools, but teachers now do it in their own time, as they value it. What is surprising is that principals in the four schools are supporting this practice through time and resources and yet seem to be relinquishing their control of it, thus once again trusting their teachers: *'To be honest, the day-to-day running of it, I don't have any input into that at all now except that I know it's going on . . . and I'm quite happy for it to go on'* (Fergal, Principal, School D). This is having a positive effect on the staff in school D, where teachers have stated that *'he's very trusting of the learning support [SEN] team'* (Imogen, SEN, School D); and *'Fergal has been completely behind it in that he just said "I trust you completely in what you're doing. You are the experts in this area"'* (Sarah, Advocate, School D).

This echoes Priestley and colleagues' (2011: 270) view arguing for engendering 'professional trust and a genuine shift in power to those at the

chalk face' for successful reform. However, it is important to note that with this autonomy comes professional responsibility, and the teachers *'always run everything by him and he would frequently ask us why are you doing this'* (Imogen, SEN, School D). This engendering of professional trust is again reflected by Martina (Principal, School B) when she states: *'people have strengths and there are people who are far better at areas of curriculum than I am, and use that, let them off and they do it very well'*. This challenges the standardisation-focused global approach to educational reform, which leans towards micromanaging teachers and principals from the top down.

Teachers enjoyed the team teaching aspect of this collaborative PD initiative, and the principals in particular cited it as an important aspect in the long-term development of teachers' practice and learning. The sharing of responsibility for pupils and the mentoring aspect of the practice was significant for many involved, as discussed earlier under *'Collective outcomes'*. This collaborative initiative has led to collaboration among teachers within the schools, thus concurring with the many calls in the literature for the development of PLCs for sustaining teachers' practices and learning (O'Sullivan, 2011). What is interesting is that teachers were requesting time from principals for collaboration on the planning and evaluation of the initiative, along with time to facilitate the diffusion of the practice to other teachers. In this way PLCs were an outcome of this initiative, thus highlighting the importance of teachers collaborating with a shared focus to help establish PLCs (Stoll *et al.*, 2006; O'Sullivan, 2011) and not having *'collaborative practice for the sake of it'* (Fergal, Principal, School D). Professional learning communities are not assumed or mandated but happen naturally, as shown by Martina (Principal, School B):

*One thing that it has facilitated maybe a certain amount of professional discussion maybe unknown to ourselves. . . . If you had said to the staff now we have to have a proper professional discussion around this, they'd have told you where to go probably. It just happened naturally and you know it's really good that way.*

All of the original teachers, bar one, and their principals highlighted the importance of the structure of the initiative as having a positive impact on the sustainability of the teachers' practice, a view that was also reflected by a majority of the teachers and principals who subsequently engaged with the initiative. However, very different versions of the meaning of structure were recounted. Sandra (Principal, School C) stated:

*. . . it's not as difficult to run as some other programmes. . . . Some things are just so complicated it is hard work to even try and get people to have the time to look at them properly . . . they just give up a little bit on it and try to go for other programmes like this that are more tangible and more easy to manage.*

Declan (CT, School C), who had previously embarked on team teaching, felt 'It was so structured and it allowed for ease of planning . . . for team teaching . . . there was no fear . . . and everyone seems to know their role in a clearer way'. The structure of the initiative related to the length of time it lasts per year was also noted by Sarah (Advocate, School D): 'I think the whole idea of the eight weeks . . . is very useful as well and it is much more effective than being spread out.' Martina (Principal, School B) also felt that the limited timeframe was positive: 'Peer Tutoring takes place for a set time, for a set number of weeks. . . . [It leaves] time for other parts of the programme [English] to take place'; while Fergal (Principal, School D) thought 'Administratively it's relatively easy to run'. Despite these various interpretations of structure, what emerges here is the strength of the impact of structure on the sustainability of teachers' practice, and yet the literature appears to have little to say about this.

The data also strongly suggests that teachers' beliefs regarding its success for pupils, and evidence of same, are largely responsible for its continuation. This is reflected well in Imogen's (SEN, School D) stance:

*The CT needs to believe in it and needs to see a positive outcome from it and needs . . . to believe that it is worthwhile . . . that benefit can come in lots of different ways, be it academic or social.*

In a similar vein, Fergal (Principal, School D) posits: *'the fact that it has been sustained is not simply because it's been driven, it's because the general feeling is it's a very worthwhile thing to do'*, and later in his interview adds: *'we're getting results. They might not be measurable but there are benefits'*. Both extracts here highlight again the value teachers place on affective and psychomotor outcomes for pupils, and may suggest that teachers and principals in Ireland are not under the same accountability and performativity pressures that exist in many other countries.

In summary, teachers' motivation to sustain practices is aligned to the practice meeting the personal and professional needs of teachers. This results in teachers taking ownership and responsibility of the practice, with a willingness to help with its dissemination. The role of leadership and an advocate or driver for the practice, along with the development of PLCs to facilitate deep learning, shared pedagogy and reflective practice, were also highlighted by many as influencing factors for sustainability of practices. The data also shows that the structure of the initiative is a very influential factor with interviewees, almost without exception.

### **What factors had a negative impact on the long-term development and sustainability of teachers' professional practice and learning?**

Even after three years, very few negatives were reported by teachers in relation to this collaborative PD initiative. The fact that four schools out of five have sustained the practice suggests that the positives are outweighing the negatives. However, as discussed above, School A have not sustained the practice due to pressures from the DES to embark on other initiatives, which interestingly was not an issue for the other four schools, who succeeded in aligning these other initiatives with this literacy initiative. While Pat (CT, School A) continued it himself the second year, it was not sustainable without the presence of another teacher. He articulated his frustration clearly here:

*Teachers just tune out, like I've tuned out. We have so much going on that you do recede to what works and . . . to what can you get done and what's not going to be too much extra work because you're not getting the support.*

So clearly a lack of support was instrumental in Pat not sustaining the practice. It was an option in the school policy which teachers could choose to embark on, but as Pat clearly stated: *'because of the fact of the training, there's not much understanding for it'*, thus showing the necessity of PD training to facilitate conceptual knowledge to assist dissemination of practices. Problems with sustainability centred on a lack of leadership support, initiative overload, a lack of training and a lack of conceptual understanding about the initiative. The issue of staff turnover was mediated by School B, as described earlier, while principal turnover resulted in two new principals becoming aware of the initiative at a conceptual level and subsequently supporting it as they too could see value in it.

No real negatives were reported by others, and teachers seem to be using teacher agency with the support of their principals to overcome the negatives, which were mostly centred on timetabling issues. These related to the best time of the day to work on the practice (Imogen, SEN, School D), the time of year to run it (Declan, CT, School C) and the number of weeks to run it for (Alice, Principal, School E). This practice is time-consuming in that it runs for 30 minutes per day, four times per week over an eight-week period, and has two weeks' training prior to this which encompasses 10–15 minutes per day. Noelle (CT, School E) stated: *'I don't think there were any great negatives in it'*, but she added that it did not suit all pupils and therefore accommodations had to be made, again showing teacher agency. However, it also illustrates teachers' beliefs about practices first and foremost meeting the needs of pupils, a factor highlighted by Martina (Principal, School B):

*So that's why we have to look at maybe other things for some of them, we need to listen to what class teachers are saying and what the concerns are around the children because she knows them better than anybody.*

This is indicative again of principals trusting their teachers to know what is best for their pupils, and therefore challenging a one-size-fits-all approach,

despite calls for standardisation and consequential accountability on a global level.

The next chapter looks at synthesising the information from these findings to provide a logical and coherent chain of events to developing and sustaining teachers' professional learning as took place in this collaborative PD initiative. It also explores the framework used for analysing the impact on teachers, and discusses its suitability or otherwise for schools as a toolkit for self-evaluation of PD in their own schools.

## **Chapter 5            Discussion of Findings**

### **Introduction**

This thesis explores the impact of a collaborative PD initiative on teachers' professional learning in five urban disadvantaged primary schools in the ROI, using a framework developed and discussed earlier in the thesis. It focuses on the impact of the PD and its sustainability, from which emerged important issues about teachers' learning and professionalism. This chapter aims to:

- critique the framework for evaluation, to assess its suitability for such evaluation and to develop it in light of evidence and application;
- discuss the impact of the PD initiative on teachers' professional learning and identify the key features of this learning that contributed to sustaining PD practices;
- identify the link between the type of professionalism evident in this study and the impact on teachers' sustainability of PD practices.

### **Professional Development Impact Evaluation Framework**

Ofsted (2006) reported a lack of effective evaluation as the weakest link in the PD chain, with further calls to extend evaluation to measuring changes in professional practice and impact on pupils' learning (Guskey, 2000; Bubb and Earley, 2008). The need for PD provision to be 'adequately assessed and evaluated' has also been highlighted by the DES in Ireland as a target for 2012–13 (DES, 2011: 37). To analyse impact of the PD initiative in this research, a framework for evaluation was developed which started from the significant works of Guskey (2002) and Bubb and Earley (2010) and was developed further with elements from other sources, as described in Chapter 2. While both these works focus on the importance of organisational support and teacher learning with specific references to knowledge and skills, the most comprehensive of these models is Bubb and Earley's (2010), which incorporates the dissemination of practices to other pupils and adults, which is essential for sustainability of practices. Additionally it integrates levels of

impact, including products and processes, with the important idea of planning impact before engaging with PD (Earley and Porritt, 2010).

However, overall analysis of these models in light of the literature revealed gaps – especially in the area of collaborative practices, which are seen as the cornerstone for change. The above models omit various forms of collaboration, such as coaching, mentoring, and the development of PLCs, which are repeatedly advocated in the literature as essential components for teacher learning and sustainability of practices. While these models acknowledge the importance of teacher knowledge and skills, they do not include the levels of teacher use and knowledge (Hall and Hord, 1987), despite the literature advocating teachers’ ‘deep learning’ for sustainability of practices. Notable too is the important inclusion of attitudes in Bubb and Earley’s (2010) model as an aspect of teacher learning. The significance of teacher attitudes and beliefs as central to the change process was highlighted in the literature (Opfer *et al.*, 2010), and therefore more emphasis is placed on this in the new framework.

This analysis of the models led to the development of the ‘PD Impact Evaluation Framework’, which is a synthesis and adaptation of previous models; it acknowledges the strengths and addresses the limitations as set out above. The additions include: affective levels of change; levels of teacher understanding and use of practices; pedagogy; impact at a collective level to account for forms of collaboration, development of PLCs and cultural changes. This framework sought to gauge changes in professional practice and impact on pupils while acknowledging supportive factors, as very few studies incorporate details of processes and PD outcomes (Cordingley *et al.*, 2008). See Figure 3.2 for this framework and Table 3.1 to see how it was operationalised for use in this study.

The question that needed to be answered here was whether the framework was suitable for evaluation of the PD initiative or whether, following data analysis, it needed to be adapted. Overall, findings indicate that the framework was very appropriate for this evaluation, and while most of the

headings on the framework worked well, some were merged and others renamed. These will be now explained in detail.

The first two sections of the framework, namely *The Experience* and *Learning*, were principally concerned with teachers' satisfaction with the initial PD off-site training experience. This is quite reflective of much PD evaluation, which focuses largely on teacher satisfaction with PD. To explore impact on teachers' learning and pupils' outcomes, responses from participants about the short-term and long-term implementation of the practice were recorded under the framework headings of *Pupils' Outcomes*, *Cascading* and *Into Practice*.

The sections on *Pupils' Outcomes* and *Cascading* were very relevant despite no mention of cascading to adults or pupils in other schools. While this aspect of cascading was not relevant to this research, it is important to remember that relying exclusively on site-based learning may lead to lost opportunities for sharing of ideas and resources, less collaboration among teachers from various contexts, less efficient use of outside expertise and less exposure to a broad vision for improvement (Guskey, 1996). Therefore, these will remain in the framework, as many PD experiences will occur off-site. However, it was decided to change the term *Cascading* to *Diffusion*, as the former suggests a deliberate, planned, downward movement whereas *Diffusion* is more reflective of the natural rippling of practices that happened in this study. The sub-headings under pupils' outcomes were very reflective of teachers' responses about pupils' outcomes.

Data analysis revealed consistencies across four cases regarding supportive features of sustainability, which will be discussed later in this chapter. These features became part of the framework under the heading *Systemic Factors*, which replaced the heading *Organisation support* (Guskey, 2002; Bubb and Earley, 2010), as this research highlighted the importance of teacher agency, the initiative itself as well as organisational support in the process of teachers' professional learning (Opfer and Pedder, 2011).

The largest section of the framework was titled *Into Practice* (Bubb and Earley, 2010) and was the central focus that explored the impact of the PD initiative on the teachers' professional learning. This section had been developed further with aspects from the literature, as seen in Chapter 3, Figure 3.2. However, data analysis suggested that many of these additions could be merged. For example, under *staff outcome* at a personal level there were initially two sub-headings: *feelings and thinking related to classroom teaching*, and *beliefs and attitudes towards pupils' learning*. On second round coding, another level was added: *feelings and thinking related to collaborative practices*. However, with data reduction two of these sub-headings were merged into one: *beliefs and attitudes related to classroom teaching and pupils' learning*, while the heading of *feelings and thinking related to collaborative practices* was transferred to the new heading of *cultural*, which replaced *collective*.

This revised framework specifically looks at teachers' personal beliefs in relation to classroom practice and pupils' learning, which is reflective of the cyclical nature of teacher change (Opfer *et al.*, 2010) and focuses on the interplay between these variables in favour of Guskey's (2005) model, which argues that change is linear with changes in beliefs following a change in practice. This study has shown that changes are iterative and can begin at either point; for example, beliefs about the value of pupils working in pairs led to further practices involving pairing of pupils. Similarly, teachers' experience of this literacy practice led to changes in beliefs and values about collaborative practices, which in turn led to adoption of other collaborative practices. The positive impact on pupils led to sustainability of the practice and encouraged others to engage with it. It is therefore important to look at impact in terms of teachers' beliefs, as they influence teacher efficacy and practices and pupils' outcomes.

Under the heading *professional* comes the *quality of use and understanding of new and improved knowledge and skills*. This involved a merging of the existing headings of *teachers' knowledge of innovation* and *use of new and improved knowledge and skills*, as these can be described at three levels,

*mechanical*, *routine* or *refined/integrated* (Hall and Hord, 1987; Baker *et al.*, 2004), and are reflective of knowledge at procedural and conceptual levels. However, it was decided to rename the *mechanical* level to *technical*, as the former suggests something that is automatic or routine while technical is more concerned with the details or logistics as suggested by Hall and Hord's (1987) descriptors in Table 2.3.

Notable too was the link between data at the *routine* levels of quality of use and understanding (Hall and Hord's, 1987) and that of teachers' knowledge of *pedagogy* as related to the initiative. Characteristics at the *routine* level show teachers' conceptual knowledge related to the initiative itself, whereas *pedagogy* is more focused on enabling pupils' learning (MacNeill *et al.*, 2005). Furthermore, PCK – that is, 'knowledge of ways of representing specific subject matter for pupils and an understanding of the difficulties they may face because of their existing conceptions' (Smith, 2007: 378) – is also an important part of pedagogy. Therefore *routine* was changed to *accepted* levels of understanding and use, as the primary focus seems to be on teachers accepting that the initiative is working well for their pupils. Meanwhile, evidence of shared pedagogy and PCK, where teachers have collectively generated new knowledge and practices from their experience, will mean a change from *refined/integrated* level of understanding and use to *critical*. Underpinning this critical level is teacher agency, which may be more of a requirement than an impact, and therefore the heading of *teacher efficacy and human agency* is being removed from the framework, with *teacher efficacy* being placed under the personal level as it is connected with teachers' beliefs in their power to effect change with correlations between affect and efficacy (Kitching *et al.*, 2009). *Commitment and ownership* was omitted as it was felt it forms part of teacher agency, as teachers are showing commitment and ownership when they are acting in intentional ways to enable change.

The addition of a new level *Discontinued* was deemed appropriate given that some teachers discontinue the changes in practice, which may be as significant as those who sustain changes in some instances. While Hall and

Hord's (1987) three levels of non-users were not applicable to this study, they may be of relevance in other situations for assessing impact, and are therefore included in the final framework and explained in Appendix 9.

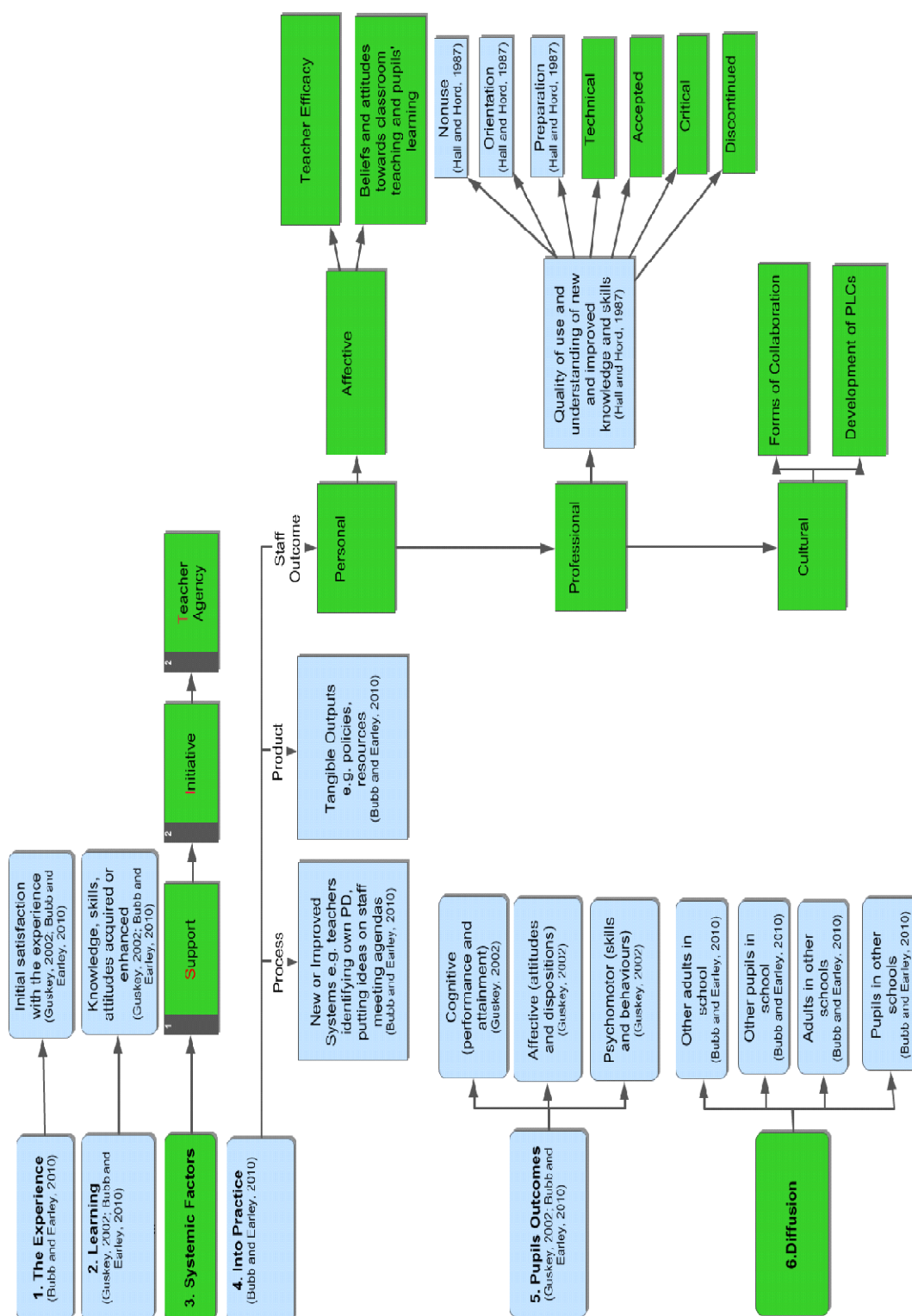
At the *collective* level of the framework, some headings were collapsed into each other and replaced with the term *cultural* to encompass the way things are done in school, for example the *forms of collaboration* that ensued from this initiative and the *development of PLCs*. *Staff morale* was omitted, as the data was categorised under affective levels also. Therefore the impact at a cultural level in this framework looks at the impact at an organisational level, in terms of teachers' participation in PLCs and other forms of collaboration focused on teaching and learning, which are seen as essential components for building capacity for school improvement (Hodkinson and Hodkinson, 2005; O'Sullivan, 2011). *Interpersonal capacity* was merged with PLCs, as data from the interviews was coded under both headings. Many of the concepts associated with Frost and Durrant's (2003) *interpersonal capacity* are similar to those of PLCs, but the aspects of teachers having collective responsibility for pupils' learning, shared values and vision, and reflective professional enquiry are not included, despite being seen as essential components for enhancing pupils' outcomes and school improvement. Therefore they need to be explicitly included and evaluated as part of any evaluation of PD, and not just expected as part of their performance management. Furthermore, taking cognisance of staff outcomes at personal, professional and cultural levels may help to provide a more comprehensive approach to looking at levels of teacher understanding and use of new practices, rather than simply acknowledging changes in the practice and knowledge of teachers, as is reflective of Frost and Durrant's (2003) outcomes at staff level looking at classroom practice, personal capacity and interpersonal capacity.

In relation to *products* and *processes*, the data showed that while schools may have had a new policy which came under the heading *products*, certain *processes* needed to be put in place to act upon these products (Bubb and Earley, 2010). Many *processes* reported by participants were reflective of

collective practices in evidence at a cultural level. This heading will remain on the framework, however, as some processes did occur that would not align well with the cultural level; for example, putting the initiative on the agenda for staff meetings is a process, but the impact of it is the timetabling of the practice for the school year.

The final version of the 'Professional Development Impact Evaluation Framework', following data analysis, is provided as Figure 5.1. It can be used for looking at short-term and longer-term impact of PD practices.

**Figure 5.1 Professional Development Impact Evaluation Framework Revised**



This Professional Development Impact Evaluation Framework was based on a synthesis and adaptation of established models, most notably Bubb and Earley (2010) and Guskey (2002), while also drawing from Hall and Hord's LoU (1987). Following its use in this study, several adjustments were made, highlighted in green, to reflect the diverse nature of the impact being evaluated. The important adjustments include increased emphasis on: affective levels of change; levels of teacher understanding and use of practices; and impact at a cultural level to account for forms of collaboration and development of PLCs, as these are vital components for lasting change and school improvement. This PD Impact Evaluation Framework acknowledges and reflects the findings from this study about the key factors that supported sustaining teachers' professional learning, which is pivotal for enhanced pupils' outcomes and school improvement. These features will now be explored in more detail.

## **Sustaining Teachers' Professional Learning**

This research draws on work which explores the impact of PD and seeks to identify and understand factors that appear to either support or impede the longer-term sustaining of new practices. Within the findings the issue of teachers' professional learning, and how it is addressed, has emerged as a key to determining whether or not new professional practices are sustained and embedded. This section of the chapter highlights two themes in this regard: the PD Legacy and PD Facilitators.

### ***Theme one: The Professional Development Legacy***

Legacy in this context is defined as long-term endowment or benefit arising from engagement with PD. Arguably, the crucial dimension for school improvement is sustaining changes (Baker *et al.*, 2004) resulting in teachers embedding new practices into their everyday teaching lives. These changes can be at a personal, professional and cultural level, which in turn may result in improved pupil outcomes and school improvement. Findings from this research indicate a large proportion of teachers sustained the use of the

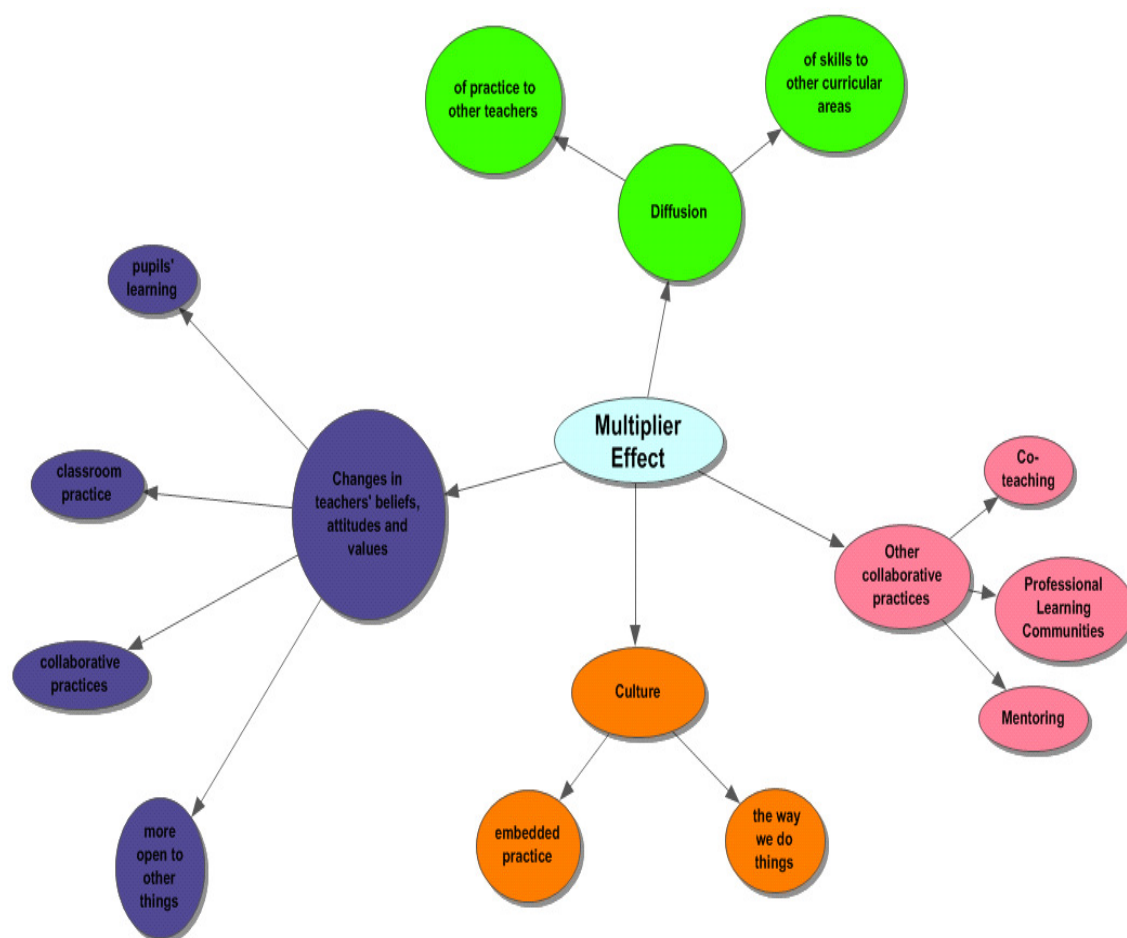
literacy practice, albeit in diverse forms. Sustaining the practices required teachers to respond in different ways to facilitate the implementation and to make it suitable for their pupils in their contexts. A summary of these responses, by school, is outlined in Table 5.1.

**Table 5.1 Teacher responses to the initiative**

	<b>Responses</b>
<b>School A</b>	Discontinued.
<b>School B</b>	Teacher came in off leave to peer coach another teacher to enable sustainability. Added a more detailed comprehension dimension to it for older pupils whose reading accuracy and fluency are very good. Added a card with questions to assess comprehension of text read.
<b>School C</b>	Added written reviews of the book. Paired two exceptionally able pupils together so that they would both benefit from the practice.
<b>School D</b>	Moved it to older classes as it was felt that the baseline of pupils in third class was too low. Now in fourth and sixth class yearly. Changed reading for three minutes each to reading four pages each, as three minutes was too long for the concentration span of the pupils in question.
<b>School E</b>	Merged two classes one year to facilitate implementation. Changed timing of it to the first term so that pupils could gain the skills earlier on – beneficial for all other curriculum areas then.

However, these responses may not be enough, as over more time the practice may be eroded and therefore become valueless. If ‘the real agenda [for school improvement] is changing school culture not single innovations’ (Stoll and Fink, 1996: 45–46), then sustainability of practices alone is not sufficient. It requires further development in the form of creating a PD multiplier (Figure 5.2) whereby the impact of the initial PD extends beyond, and is greater than, the original initiative, as was evident in this research. The PD multiplier shows the process by which a multiplier effect occurs, and it attempts to calibrate the additional effects of the PD beyond those that are immediately measurable. Examples of additional effects include: diffusion of practices; changes in teachers’ beliefs, attitudes and values; other collaborative practices; and changes at a cultural level.

**Figure 5.2 The PD Multiplier**



*Diffusion:* As depicted in Figure 5.2, the diffusion of the practice to other teachers, and consequently other pupils, was evident in, but not beyond, each of the four schools that sustained the practice. In analysing the impact on teachers at a professional level, as per the framework, it was clear that many of the teachers' understanding and use of the knowledge and skills was at a critical level, as explained above and in Appendix 9: Levels of impact explained.

*Changes in teachers' beliefs, attitudes and values:* The changes in teachers' beliefs, attitudes and values relating to pupils' learning, classroom practice and collaborative practices were very much in evidence, with teachers highlighting the value of pupils working in pairs from an academic, social and classroom teaching point of view. These affective changes in turn may have an impact on teacher efficacy, which has been cited as central to teacher

motivation and job satisfaction (Morgan *et al.*, 2009). What is interesting to note is that the CT in school A who did not sustain the use of the literacy initiative itself nevertheless did show evidence of a PD multiplier: '*it taught me how to teach reading in a different way outside of the programme*', and the '*value*' and challenges of pupils working together (Raptis and Fleming, 2005).

Further evidence of the PD multiplier on teachers' change in beliefs and values was in their reporting of being more open to other changes and other collaborative practices (Cordingley *et al.*, 2003). This is quite significant given that teachers' openness and willingness to engage with new practices and change was cited by many participants as being highly important in engaging with and sustaining this PD initiative, and also highlights the call in the literature for PD practices to be personalised (Bubb and Earley, 2008; NCCA, 2010) with a move away from teachers delivering externally driven goals all the time (O'Sullivan, 2011). This call for personalised PD for teachers reflects the call for personalising pupils' learning (Bubb and Earley, 2008), just as the call for the development of creative skills for 21<sup>st</sup> century pupils should reflect the freedom for teachers to be creative, which can be very challenging in a culture of managerialism.

These demonstrations of teachers' affective changes are highly significant, given concerns in the literature regarding the scarce evidence of changes in teachers' beliefs and values (Gleeson and O'Donnabháin, 2009; Opfer *et al.*, 2010). Lipson and Wixson (1997: 128) write: 'No single factor influences the instructional setting more than a teacher's knowledge and beliefs about teaching and learning'. Teachers' beliefs and valuing of the initiative were also instrumental in this rippling process, as teachers wanted it to survive and were therefore willing to model it for other teachers. In this way it survived despite teacher turnover, which may result in the decline of effective practices in schools (Hargreaves and Fink, 2003). Teachers also value what other teachers say 'works' and are therefore more willing to engage with such practices (Landrum *et al.*, 2002).

This raises the issue of linking the personal and professional in winning minds and hearts as well as achieving behavioural changes for effective PD (Bubb and Earley, 2008; Evans, 2010). Furthermore, it questions whether this is possible to achieve in a culture of standardisation and performativity, as attitudes and beliefs cannot be easily imposed on people (Evans, 2008). While Guskey (2005) argues that changes in beliefs come after a change in practice resulting in improved pupils' outcomes, it may be argued in turn that when practices are mandated and result in improved pupils' outcomes, teachers' beliefs and values may change. However, in a culture of managerialism teachers tend to employ more technical, rational approaches to initiatives in a compliant and non-critical way (Sugrue, 2002), as shown by the SEN teacher (school E), resulting in short-term improvements but little change in teachers' beliefs and values, which are central 'to teacher practice and change' (Opfer *et al.*, 2010: 2). This is reflective of the *technical* level on the framework in Figure 5.1. What it highlights is the complex cyclical process of change (Opfer *et al.*, 2010), with teacher learning reflecting an iterative interplay between beliefs, practices and the context (schools) where teachers work.

*Collaborative Practices:* The PD multiplier is also exemplified by teachers' move from isolated privatism towards collective responsibility (O'Sullivan, 2011), with evidence of new and different forms of collaborative practices developing in the schools. Where few teachers may have physically worked within the same classroom before, it has now become embedded: with more co-teaching practices where teachers work and reflect together; with PLCs where collaboration is focused on learning and developing shared values and vision of pedagogy. This is highly significant given the literature showing that teachers often value collaborative practices more than they implement them (Opfer and Pedder, 2011), which is perhaps reflective of teachers having had little guidance or support on how to implement them. What is significant here is that collaborative practices formed part of the process by which teachers engaged with the literacy initiative (product), and yet these same collaborative practices have led to other forms of collaborative

practices which were not part of the motivating factors for teachers to initially engage with the PD initiative.

*Culture:* An unintended consequence reported by some of the schools was the emergence of informal mentoring whereby teachers learned from each other. This embedding of practices and thinking within the schools reflects a shift in culture, in the way things are done in these schools, which is necessary for school improvement (Stoll and Fink, 1996). Collaborative practices are now the norm in these schools, so changes in culture may be the most significant outcome of engagement with this PD initiative. What is significant here is that teachers engaged with this PD initiative as they liked the ‘product’, the literacy initiative itself, but it is the overall process of being involved that has brought about cultural change. While the teachers tended not to be aware of this at the start, and it was not their motivation for engaging with the initiative, it is interesting to see how it clearly effected lasting change at a cultural level. However, if this had been the reason for engaging with the initiative in the beginning, it may not have been as successful. This was reflected by two principals who were motivated from the beginning by the collaborative team teaching process involved in the PD initiative, and yet knew they could not mandate such practices themselves.

Teachers and the majority of principals in these case studies were motivated by the product with the aim of bringing short-term improvements in terms of literacy, whereas the more long-term substantial benefit was cultural change. In this way the features of the multiplier effect are more important than the initiative itself for sustainability. Therefore the aim may be to create a legacy that has a multiplier effect within schools for school improvement. While these case studies represent a micro example of actualising cultural change, they point to what may be needed on a bigger scale to achieve cultural changes in schools. However, it is important to be aware of the key features that facilitated this PD multiplier and sustainability of practices.

## ***Theme two: The Professional Development Facilitators***

Having explored the legacy of the PD, it is important to know what facilitated it. This research has identified three consistent features of teachers' professional learning, as evidenced on the framework in Figure 5.1 under *Systemic Factors*: Support, Initiative, and Teacher agency. It is important to note that some of these features were also necessary for teachers engaging with the practice initially.

*Support*: Many forms of support were in evidence in this research, from leadership, PLCs and an advocate (Table 5.2).

**Table 5.2      Forms of Support**

<b>Support</b>	
Leadership	Principals showed conceptual knowledge. Facilitated diffusion of practices through time and resources. Helped build capacity for change: <ul style="list-style-type: none"><li>• practices not mandated</li><li>• hiring and identifying staff open to collaborative practices.</li></ul> Helped teachers develop PLCs by providing time, trust and encouragement.
PLCs	Emergenced from engaging in this collaborative initiative. Predicated on trust and openness and willingness of teachers to engage.
Advocate	Brought initiative to the attention of others. Facilitated its sustainability: <ul style="list-style-type: none"><li>• modelling practices for others</li><li>• coaching and feedback</li><li>• through a culture of collegiality</li><li>• assuming responsibility for it because they value it</li><li>• putting it on the agenda at staff meeting each year to facilitate timetabling</li><li>• sourcing and organising resources.</li></ul>

Leadership support was the mechanism through which other supports, such as the development of PLCs and the modelling of practices by an advocate, were enabled to develop. Support from leadership and an advocate were significant features in the PD initiative lasting in schools, while additional support from PLCs was highly influential in the growth of the impact of the PD multiplier, as demonstrated in Figure 5.2.

*The PD Initiative:* The structure of the initiative, along with its success for pupils, were significant factors in its legacy (Table 5.3).

**Table 5.3      Influential features of the initiative design and impact**

Features of the initiative	Influential aspects
Structure	'Feasible, focused, very structured' Collaborative team teaching aspect Self-contained for a certain block of time
Success	Impact on pupils <ul style="list-style-type: none"> <li>• cognitive – attainment</li> <li>• affective – enjoyment, motivation</li> <li>• psychomotor – skills</li> </ul>

While none of the teachers engaged with the initiative because it was collaborative per se, some reported finding the collaborative team teaching aspect influential in its sustainability, as teachers felt they learned from each other. Surprisingly, the fact that it was a self-contained initiative for a certain block of time helped secure teacher support, as it reduced teachers' fear of committing to long-term change. Perhaps this was an influential feature for principals too, as there is also less risk with a short-term initiative. However, this was not reported by any of the sample. Nevertheless, this short sharp approach to PD initiatives may be persuasive for others who are seeking to effect change in their schools, because while the initiative itself was time bound, the multiplier effects seeped through to other aspects of teachers' practice on a long-term basis.

The success of the initiative on pupils' outcomes was highlighted by all teachers, albeit at different levels: cognitive, affective and psychomotor as outlined on the evaluation framework. Teachers' discussion of its success may be reflective of teachers demonstrating self-evaluation and professional responsibility, which Sahlberg (2007) argues is the way forward in educational reform instead of externally demanded accountability. Even though managerialism emphasises outcomes and cost-effectiveness (Gewirtz and Ball, 2000), the evidence suggests that teachers are still

motivated by pupils' affective outcomes: practices that they perceive their pupils enjoy and find motivating and interesting (Boardman *et al.*, 2005).

This highlights the importance of each individual teacher knowing what works best for pupils in their classrooms, and once again challenges the process of standardisation that results in a one-size-fits-all approach which ignores the crucial element of 'context' (Goos *et al.*, 2007; O'Sullivan, 2011) and to date has resulted in mediocrity (Sachs, 2006) with little evidence of enhanced teaching and learning (Sugrue, 2002).

*Teacher Agency:* Teachers' openness and willingness, motivation, and deep learning were significant in the legacy of the PD initiative, as depicted in Table 5.4. Teachers elected to engage with and sustain practices which they deemed relevant to their pupils' needs, thus resulting in the highest levels of change (Pedder *et al.*, 2008). Underpinning all of these was teacher agency, which involves teachers acting in intentional ways as there can be no action without agency (Fallon and Barnett, 2009).

**Table 5.4 Teacher Descriptors to facilitate sustainability**

Teacher Descriptors	
Openness and willingness	'Grassroots' approach with top-down support.
Motivation	Meeting their personal and professional needs.
Deep Learning	To facilitate teachers' ability to see how it would align with existing and subsequent practices.

What may be significant here is the level of teachers' quality of use and understanding of new knowledge and skills, as shown on the framework in Figure 5.1. While this study reflects almost all of the teachers operating at a 'critical' level, which seems to have facilitated the PD multiplier, Baker *et al.* (2004) posit that a 'substantial proportion of teachers' who sustain practices operate at an 'accepted' or 'routine' level of practice. Sustained teacher professional learning is a complex process involving the interconnectedness and interdependency of teachers, the initiative itself and the pivotal role of support, as emerged from findings in this study; see Figure 5.3.

**Figure 5.3 Necessary systemic features for sustaining teachers' professional learning: S.I.T. (Support, Initiative, Teacher Agency)**



This research endorses the importance of systemic factors, as shown above and on the framework in Figure 5.1, and within that system the pivotal role of teachers as change agents in the PD process (Guskey, 2002; Bubb and Earley, 2010; NCCA, 2010). What is significant here is that collaborative practices and PLCs were not mandated, yet teachers were supported in developing generative PLCs focused on teaching and learning to help sustain practices, which in turn led to the PD multiplier. Furthermore, the importance of the structure and success of the initiative was highlighted by participants as being critical for sustainability. What underpinned all of this was teacher agency: teachers mediating the structures to enable them to use the practice in a meaningful way for their contexts.

Putting the teacher at the centre of change is well documented in the literature, but in a predominant trend towards managerialism and accountability this tends to be forgotten, resulting in PD practices being mandated for teachers in a top-down approach. However, PD 'does not just happen – it has to be managed and led' (Earley, and Bubb, 2004: 80) or led and supported (NCCA, 2010). Therefore, cultures of professionalism and leadership may strongly influence teachers in their professional learning, as

can be seen in this research. Leadership may vary from what is termed transactional or transformational (Ingram, 1997), with the former operating on the premise of motivating teachers to change through extrinsic rewards and the latter focused on school improvement. This may be somewhat reflective of managerial and democratic professionalism, in the way that they manage and lead PD by comparison to leading and supporting through transformational leadership. The subtlety in the choice of words between ‘managing’ and ‘supporting’ PD may not be as subtle in reality, as can be seen in this study.

However, it is important to note that not all teachers displayed similar levels of engagement with the PD initiative. From the data it was possible to construct a typology of teacher engagement and adaptation to change, which will now be explored in more detail.

## Typologies of Teacher Engagement

The typologies outlined in Table 5.5, which represent the sample in this research, are now explained and explored in light of their contribution to the PD legacy.

**Table 5.5 Typologies of Teacher Engagement**

Disposition	Advocate	Professional Developer	Supporter	Compliant and Critical	Compliant and Technical
Alignment with principal or national values	Yes	Yes	Yes	Yes	No
Implementation and sustainability	Drives and sustains	Accepts and sustains	Accepts and sustains	Accepts but discontinued	Accepts but discontinued
	Drives but discontinued				
Descriptors	Meets existing values and beliefs Motivation: Fit Constructivist or Deep learning Teacher agency	Enthusiasts Openness and willingness Motivation: Fit Constructivist or Deep learning Teacher agency	Openness and willingness Motivation: Fit Constructivist or Deep learning Teacher agency	Openness and willingness Motivation: Fit Constructivist or Deep learning Teacher agency	Technical or procedural learning
	Meets existing values and beliefs Motivation: Fit				

*Advocates* is a term used to describe the people who initiated the practice in 2007, only three of whom are still in their respective schools. They believed in and valued an aspect of the initiative prior to advocating it, for example, the collaborative team teaching aspect or the literacy practices involved. It fitted with their personal and professional needs. Two of the original advocates are still in this role in their respective schools, where they have sustained the practice and have demonstrated deep learning and teacher agency. However, the third advocate was principal of school A, where the practice has been discontinued. There was no diffusion of practices or development of PLCs in relation to the practice, and consequently it has not survived despite teachers' willingness for it to continue. There was no evidence of deep learning or teacher agency relating to the initiative either.

*Professional Developers:* Seven teachers from four schools fit this category, as they were willing to engage with the practice without necessarily believing in it and have sustained the practice. These may be reflective of '*the usual suspects (enthusiasts who volunteer for everything)*' (Bubb and Earley, 2008: 19). One of these teachers has a different teaching role and therefore has not personally sustained the practice. Interestingly, five of the teachers who were involved in the original research in 2007 have been involved in diffusion of the practice to others. Two of the seven have willingly become advocates for the initiative in their schools following retirement of original advocates. Leadership support for the initiative and for their role as advocates is present.

*Supporters:* Seven participants have been given the title of supporters, four of whom are principals who provided top-down support for the bottom-up initiative in their schools. An additional person in this category was acting principal at the time and supported the initiative. The remaining two teachers were willing to engage with the initiative when asked by their co-workers if they were interested in participating. Both had heard positive results about the practice in their schools and were willing to experience it themselves. Interestingly, all seven participants showed evidence of critical learning and a willingness to sustain the practice, as it was successful and they liked its

structure. Five facilitated diffusion of practices and only four showed evidence of teacher agency. The three principals who did not specifically show evidence of this, however, facilitated their teachers in using teacher agency to mediate challenges they may have been facing.

*Compliant and Critical:* Two teachers from the school that has discontinued the practice come into this category. The principal asked them to participate in the initiative, one in her role as LC of the school and the other as a newly qualified teacher who had no fixed tenure. What is very evident here is that despite teacher willingness to sustain the practice, their deep learning, evidence of teacher agency and feeling the initiative was a success, it did not survive. What was missing was support from leadership, who was the advocate, to aid diffusion of the practice. However, the principal's aim for engaging with the practice was centred on moving towards collaborative practices and away from reliance on textbooks for literacy, both of which were achieved through this initiative in its first year. At the same time there was pressure from external sources to implement departmental initiatives.

*Compliant and technical:* Only one teacher came into this category and has discontinued the initiative despite others in the school sustaining it. She was asked to help with the initiative in its first year having received no training. She showed little evidence at a procedural level, no evidence of deep learning, teacher agency or indeed motivation relating to her personal and professional needs. In fact she described herself as a teacher generally feeling '*completely overloaded*' and part of a body of teachers feeling '*overwhelmed*' and '*demotivated*'. This may be reflective of the current climate of austerity measures coupled with increasing accountability and performativity.

What is interesting from these typologies is that certain features are necessary for sustainability of practices and change regardless of whether teachers are natural enthusiasts, as in the professional developers, or reluctant to get involved like those described in the critical and compliant category. These features are consistent with the contributing features for

developing and sustaining teachers' professional learning, as colour coded in Figure 5.3 on page 137, and these are now explored in Table 5.6 against the various teacher typologies.

**Table 5.6 Teacher Typologies against features of sustainability**

S.I.T.	Advocate	Professional Developer	Supporter	Compliant & critical	Compliant & technical
Leadership/Principal			5		
PLCs	2	6	7		
Advocate	3	2			
Structure	3	7	7	1	
Success	3	7	7	2	
Teacher Agency – Openness and Willingness	3	7	7	2	1
Teacher Agency – Motivation	3	7	7	2	1
Teacher Agency – Deep Learning	2	7	7	2	
Total number of teachers	3	7	7	2	1

What is interesting to note is the distinction between teachers who were managed and those who were supported, with the former falling into the 'compliant and critical' and 'compliant and technical' categories. Despite teachers' motivation and willingness to sustain the practices, it was not possible without leadership support. The relationship between teacher motivation and performativity is also one that needs to be addressed by education systems (Morgan *et al.*, 2009), as can be seen in one school where the initiative seemed suffocated by externally driven mandates despite the CT's willingness to sustain the practice. With the data relating to teachers and systemic features of sustainability (S.I.T.) analysed and synthesised, some key requirements for sustainability of practices may now be drawn from this study:

- An advocate at the ground level to engage with and sustain practices.
- Professional developers who are willing to participate and may become involved in the diffusion of practices to others. Some may become advocates for the practice in light of staff turnover.

- Supporters: leadership support is pivotal for engagement with and sustainability of practices. Support from other teachers on the ground who are willing to subsequently engage with initiatives having heard positive results about it is also required for diffusion of practices.
- Teachers in the compliant and critical categories may engage with and sustain practices with leadership support. 'Deep learning' and a 'fit' with teachers' personal and professional needs are highlighted as necessary for sustainability.

As teachers are the mediators of change in the education system (Brain *et al.*, 2006), the above typologies of teacher engagement with change may be useful for teacher education in providing knowledge about the central role of teachers within this process. It is important to note that no matter what teacher dispositions are at play, a one-size-fits-all approach to PD will not suffice. What is important is creating more expansive supportive learning environments that will 'fit' individual teachers' needs (Hodkinson and Hodkinson, 2005) and enable them to reach an 'accepted' level of practice for sustainability or a 'critical' level of practice which may facilitate a multiplier effect, as in this study. This is highly significant in promoting a move from teacher education as a transmission model to a transformative one where teachers' knowledge, skills, values, attitudes and social contexts are acknowledged, and teachers are equipped to critically engage with education policy and practices at a personal, professional and collective level (Kennedy, 2005).

Overall, impacting on these typologies were three key elements that contributed to teachers' professional learning and which reflect a developing notion of agentic teacher professionalism: bottom-up approaches with top-down support; autonomy and professional trust; and collaborative practice and collective responsibility. Teacher PD is key to conceptions of professionalism, and therefore understanding the impact of professionalism is important for future PD practices. The concept of teacher professionalism is highly contested in the literature; some of the issues were explored in

Chapter 2. In current debates about professionalism there are a number of common themes, and this research highlights core elements that emerged, identified above, which may be a challenge to developing and existing models of professionalism. These elements are central to an evolving concept of teacher agentic professionalism, which represents a model of professionalism that creates an environment for teachers where autonomy can be exercised and teachers individually and collectively use their own professional judgement to assess impact – which is about making a difference.

### **Agentic Teacher Professionalism**

Findings in this study indicate the presence of three key elements of teacher professionalism that contributed to the PD legacy and the PD multiplier: a bottom-up approach with top-down support; autonomy and professional trust; and collaborative practice and collective responsibility. These will now be explored in detail.

#### ***Feature one: A bottom-up approach with top-down support***

A significant feature for developing and sustaining teachers' professional learning in this research was the bottom-up approach where teachers were responsible for bringing the literacy initiative to the principals (King, 2011). Teachers' motivation for getting involved centred on improving literacy, which aligned well with principals' values, as disadvantaged schools place great value on literacy. While teachers may have been the driving force for engaging with this initiative, their perceptions being consistent with those of the principal resulted in principals choosing to participate in the initiative, and therefore generated 'strong supportive pre-conditions for capacity building for change' (Björkman and Olofsson, 2009; King, 2011: 151). This alignment between teachers and principals may be indicative of Sachs's (2001) democratic professionalism, which emerges from the profession itself and allows for distributed leadership in schools.

The training day for the PD initiative design, which was attended by four of the five principals, outlined procedural and conceptual knowledge along with research findings about the impact of the initiative. Principals' attendance at this showed that they valued the initiative (Stevenson, 2008), which is important to teachers (King, 2011). This highlights the importance of principals' participation and awareness of practices at conceptual levels for sustainability (King, 2011), a finding reflected by the CT (School A) who wanted to sustain it: *'because of the fact of the training, there's not much understanding for it'*. Principals supported their teachers in engaging with the initiative and were pivotal in organising a CT and a SEN teacher who were willing to work collaboratively on the literacy practice. They also provided time for collaborative planning (Cordingley *et al.*, 2003), critical reflection on practices and consolidation of learning (Neil and Morgan, 2003; Smith, 2007; King, 2011). This was a priority for principals, to enable teachers to move along the continuum of understanding. All necessary materials were provided and principals supported timetabling the initiative each year, to facilitate team teaching. Participation was voluntary in all of the schools, with principals positing that mandating it would be likely to result in high levels of resistance. They thought if teachers chose to get involved and it was successful, it might lead to sustainability, changes in beliefs and thus real change, an approach similar to Ingram's (1997) transformational leadership and Kennedy's (2007) democratic professionalism.

However, two of the principals were thinking more strategically and saw this as a 'vehicle' for introducing collaborative practices between CTs and SEN teachers in the school, thus helping them enact their vision for their school (King, 2011). So principals supported teachers in doing what they wanted them to do and felt they could not mandate. Perhaps this is indicative of principals' agency where they were able to mediate the structures to achieve their own goals, which are reflective of departmental policy advocating collaborative practices. Top-down support may also raise the question of whether distributed leadership is only used when principals' and teachers' aims are aligned. A more balanced approach would consist of a mixture of top-down and bottom-up approaches to PD (Fullan, 1993; Stoll and Fink,

1996; Priestley *et al.*, 2011) where the voices from both paradigms are being valued. What differentiates this model of professionalism from current models is the acknowledgement of the importance of top-down support coupled with the essential aspect of a bottom-up approach.

### ***Feature two: Autonomy and Professional Trust***

What is remarkable about 'principals creating organisational capacity for change is that they did so and did not micromanage this initiative in which they had hugely invested in terms of time, timetabling and resources' (King, 2011: 152). Principals were happy to show their support, as they trusted in their teachers' beliefs, values and judgements, something which has been cited as pivotal by the European Commission (2010). They also saw that it was facilitating a culture change where more collaborative practices were evident in their schools, thus reflecting their own aims. This leap of faith in teachers is indicative of that which Collins and Dolan (2011) report as being central to change, which must be led from the classroom by teachers. It was also reported as a very significant factor in the initiative's development and sustainability: teachers in one school described their principal as '*very trusting of the learning support team*'. Evidence of principals' trust can be seen in the creation of environments for teachers where autonomy and support were given to teachers in this study. One principal argued that '*people have strengths and there are people who are better at areas of curriculum than I am and use that, let them off and they do it very well*'. Trust is a fundamental part of social capital, risk taking and innovative practices, all of which are central to school development and improvement. However, in many professions and institutions, nationally and internationally, there has been an 'erosion of trust' (Sachs, 2003: 5). In Ireland, crises have rocked confidence in very established institutions, such as the Catholic church and the banks. These crises of confidence have often led to an outcry for more political or bureaucratic quantitative accountability (Bottery, 2006), resulting in what Sachs (2006) describes as 'trained incapacity' with less risk taking, despite risk taking being essential for critical engagement as part of a

transformative model of PD for enhanced teacher expertise and school improvement.

This lack of trust has also brought with it a culture of standardisation, with teaching standards being introduced in many countries. The TCI in Ireland is a 'professional standards body for teaching' which aims to provide a 'national framework to cater for individual teacher, school and system needs' (TCI, 2011: 22). The Whole School Evaluation (WSE) process in Ireland also looks at teaching standards in schools to promote school improvement (DES, 2010). However, some view the WSE process in terms of bureaucratic and political accountability which may be indicative of emerging managerialist pressures. Consequently, it may not lend itself to school improvement. Furthermore, the recent Circular 0056/2011 (DES, 2011) has introduced mandatory collecting and reporting of standardised test results to the DES, which is further evidence of emerging managerialism.

This research suggests strongly that it is important that trust remains dominant in Irish teachers' professional cultures. This trust was in evidence where principals trusted teachers' opinions and beliefs regarding the success of the initiative even though pupils' outcomes were not always quantifiable, something which Norris (2004) argues is not necessarily bad practice. However, teachers did show evidence of using pro-active and reflexive forms of accountability (Bottery, 2006) through self-evaluation of the process, which may be seen as evidence of internal accountability (Sugrue, 2011) and professional responsibility, which are essential components for Irish teachers if they wish to avoid travelling the predominant global route to managerialism and performativity. In this way Irish teachers may be able to define and contribute to richer and more meaningful forms of accountability that help reflect the necessary skills for the new knowledge economy: creativity, teamwork and problem-solving (Bottery, 2006; Collins and Dolan, 2011). Currently the DES is mandating self-evaluation practices, and therefore Irish teachers need to ensure that they are using self-evaluation as a form of professional responsibility and internal accountability so that professional trust will be sustained. Teacher PD and learning are essential to enable self-

evaluation practices to result in school improvement (Bubb and Earley, 2010). Evidence from this study shows teachers taking responsibility for their own PD by electing to engage with and sustain the practice – which required teachers to engage at a critical level of use and understanding.

However, this facilitative style of leadership which gives teachers significant autonomy can be difficult with the ‘new culture of competitive performativity’ (Ball, 2003: 219), which means ‘principals have the onerous task of imparting the culture of accountability while preserving teacher morale, commitment and identity’ (King, 2011: 152). Mathews (2010: 146) contends that there is no evidence of ‘new managerialism’ but rather a market approach to accountability, which again reflects private sector values in the public sector. However, it is not clear what the difference between these is.

Anecdotal evidence since the introduction of the Circular (0056/2011) in 2011 suggests that teachers and principals feel we are travelling the same route as the US and the UK, where league tables exist and teacher performance will be linked to test results. So on the one hand there is quantifiable accountability, and on the other hand a strong promotion of self-evaluation, which empowers teachers to focus on what matters most in their schools (MacBeath, 1999). Evidence suggests that teachers’ self-evaluation practices may lead to a more respected and trusted professional practice (Bottery, 2006: 20). This requires the DES to show the same levels of professional trust to schools as was afforded by principals to their teachers in this research. It may be argued that the model of teacher professionalism which does not allow for being accountable to parents and the wider society has opened the door to a managerialist professionalism. The essential issue of professional trust is also a basis for another feature of teacher professionalism that contributed to the sustainability and the PD multiplier: Collaborative practice and collective responsibility.

### ***Feature three: Collaborative practice and collective responsibility***

Teachers wanted to sustain the practices as they were having a positive impact on their pupils. Diffusion of practices was essential for sustainability, which in turn required leadership support to promote the development of learning cultures (Leonard, 2002; Fullan *et al.*, 2005) where teachers become leaders themselves by modelling practices for others (Goos *et al.*, 2007). This is indicative of distributed leadership, which resulted in teachers' ownership of the practices and the development of PLCs to co-ordinate the practices to enhance pupils' outcomes (Sachs, 2003; Bolam *et al.*, 2005; King, 2011), in contrast to collaborative practices being expected under performativity (TDA, 2007).

Furthermore, principals here were '*mindful of personalities with collaborative practice*' and always ensured that teachers knew they were under no obligation to participate, as they were aware that the shift from an isolated profession to a more collaborative one is difficult to achieve in a climate of accountability (King, 2011). However, team teaching, the development of PLCs and teachers' enthusiasm for the initiative (Bubb and Earley, 2008) resulted in other teachers being willing to try it, thus facilitating sustainability despite staff turnover. Also, when principals were hiring teachers they looked for those who were open to working collaboratively. Diffusion of practices within four of the schools has been significant, with one school now having all their teachers using the initiative and other collaborative practices, all of which focus on enhancement of pupils' outcomes and school improvement. This is important given that the literature highlights that use of collaborative practice for 'sharing of learning alone' (Opfer and Pedder, 2011: 5) is inadequate for successful impact on teaching and learning (Conway *et al.*, 2011; King, 2011).

Teachers were happy to sustain the practice with support from principals. Principals were willing to support it because teachers valued it and it was impacting on school improvement, which highlights the importance of alignment between teachers' and principals' values (King, 2011). This

diffusion process may alleviate concerns raised in the literature regarding the difficulty of diffusion when an initiative is only introduced to a 'cadre' of staff and when advocates for the initiative leave (Bubb and Earley, 2008: 20).

This alignment is also crucial between all the stakeholders in the education process where members at each level are valued and trusted as professionals. While there will always be a process of negotiation of values and beliefs within those professional relationships, it may lead to a more trusting relationship between the stakeholders and a mixture of bottom-up and top-down approaches to PD, more teacher autonomy, leading to risk taking and innovation, and teachers using their agency and professional judgement in a responsible way towards improving pupils' outcomes and school improvement. The model of professionalism that was evident in the schools that sustained and enhanced their practices is shown in Table 5.7.

**Table 5.7 Model of Agentic Professionalism**

	<b>A Bottom-up Approach with Top-down Support</b> <ul style="list-style-type: none"> <li>• Supportive</li> <li>• Values distributed leadership</li> <li>• Facilitates alignment or 'fit'</li> <li>• Mixture of top-down and bottom-up approaches to PD</li> </ul>
	<b>Autonomy and Professional Trust</b> <ul style="list-style-type: none"> <li>• Trust in teachers' professional values, beliefs, attitudes and judgements</li> <li>• Self-evaluation and internal accountability</li> <li>• Professional Responsibility – Professional Development and Learning</li> <li>• Teachers engaging with practices at a critical level</li> </ul>
	<b>Collaborative Practice and Collective Responsibility</b> <ul style="list-style-type: none"> <li>• Collegiality and collaboration based on trust</li> <li>• Professional Learning Communities</li> <li>• Ownership and diffusion of practices</li> <li>• Various forms of collaborative practice</li> </ul>

This model was based on collegiality and trust, and while global pressures may be pushing in the direction of managerialism and accountability, and there is some evidence of emerging managerialism in the Irish education system, Irish teachers need to use their agency to ensure that they do not

'sleepwalk' into managerialism as this assumes a global orthodoxy. The call therefore is for 'agentic professionalism', as in Table 5.7, which is based on teachers and principals using their human agency to mediate structures of managerialism, thus resisting acceptance of external mandates in a compliant and non-critical way and assuming responsibility for their own professional learning where they know they can make – and are making – a difference to pupils' outcomes and school improvement.

## **Chapter 6            Conclusions**

### **Introduction**

This research explored the impact of a collaborative PD initiative on teachers' learning in five urban disadvantaged primary schools in Ireland. It focused on short-term and long-term impact in an effort to fill the research gap relating to sustainability of new practices in schools. It also looked at the factors that helped or hindered the development and sustainability of PD practices. Significant findings emerged from this research, resulting in the provision of a:

- Professional Development Impact Evaluation Framework;
- Sample of how to effect cultural change for school improvement and a PD legacy;
- Model of professionalism to enable the development and sustainability of PD practices.

These may be useful for schools as part of their school improvement process, and for many departments as part of their accountability measures and focus on school improvement outcomes.

Teachers' PD is the subject of much discussion and the focus of many papers and policies nationally and internationally (TCI of Ireland, 2010) in a bid to enhance teaching practices to result in improved pupils' outcomes and school improvement. Teacher PD within this research is understood as the 'processes, activities and experiences that provide opportunities to extend teacher professional learning' (NSW Institute of Teachers, 2007: 3), which is the growth of teacher expertise leading to a change in practices that result in improved pupils' learning (NSW Institute of Teachers, 2007), which is linked to school improvement (Syed, 2008) – though these links are far from automatic (Cumming, 2002) and are notoriously difficult to establish (Kratochwill *et al.*, 2007).

A considerable proportion of teacher learning happens through collaborative interactions with others (English, 2008), and therefore a shift from focusing on individual practices to collaborative practices within schools (Bolt, 2007) to facilitate the school improvement process is highlighted. This research focused on a purposive collaborative PD model to investigate its impact on developing and sustaining teachers' professional learning. A vital component for school improvement is sustainability of new practices, and yet very little research focuses on whether schools sustain PD practices (Baker *et al.*, 2004; King, 2011). In fact many initiatives are introduced in schools but an 'overwhelming number of them disappear without a fingerprint' (Cuban, 1988: 86). A significant dimension of this research is the focus on short-term actions and long-term impact, which is often ignored (Ofsted, 2006; Timperley, 2008). In addition, it investigated the processes that facilitated or hindered such impact, which few studies to date have incorporated (Cordingley *et al.*, 2008). An exploration of the literature for a suitable evaluation framework led to an analysis and synthesis of existing frameworks and the development of a new 'Professional Development Impact Evaluation Framework', which was based on the significant works of Guskey (2002) and Bubb and Earley (2010) while also drawing on Hall and Hord's (1987) LoU. This new framework played a central role in this research as it was operationalised and subsequently evaluated for its suitability.

### **Summary of key findings in relation to the research questions**

The research questions (Table 2.4) were developed from the framework which was devised from extant literature.

**Table 2.4      Research Questions**

<ol style="list-style-type: none"><li>1. Short-term Implementation: How did the collaborative PD initiative develop in each of the five schools?<ul style="list-style-type: none"><li>▪ Why did the school get involved in the initiative?</li><li>▪ Who was involved?</li></ul></li><li>2. Short-term impact: How do teachers describe the impact of the collaborative PD at the end of its initial implementation?<ul style="list-style-type: none"><li>• On a personal level</li><li>• On a professional level</li><li>• On pupils' outcomes</li><li>• On a collective level</li></ul></li><li>3. What were the key factors that shaped the changes in teachers' professional practice and learning during the ten-week period?<ul style="list-style-type: none"><li>• What factors had a positive impact on the implementation of the initiative?</li><li>• What factors had a negative impact on the implementation of the initiative?</li></ul></li><li>4. Longer-term development: What has happened since?<ul style="list-style-type: none"><li>• To what extent have teachers maintained their changes in practice and learning over time?</li><li>• How have teachers maintained these over time?</li></ul></li><li>5. Longer-term impact: How do teachers describe the impact of the PD initiative?<ul style="list-style-type: none"><li>• On a personal level</li><li>• On a professional level</li><li>• On pupils' outcomes</li><li>• On a collective level</li></ul></li><li>6. What were the key factors that shaped the long-term development and sustainability of teachers' professional practice and learning?<ul style="list-style-type: none"><li>• What factors had a positive impact on the long-term development and sustainability of teachers' professional practice and learning?</li><li>• What factors had a negative impact on the long-term development and sustainability of teachers' professional practice and learning?</li></ul></li></ol>
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The evidence in this study is based on interviews with 20 participants from the five schools. A number of reasons were identified from teachers and principals regarding their motivation for engaging with the initiative:

- it had a literacy focus which had a 'fit' with their needs;
- there was a trust in what other teachers said 'works';
- there was some pressure from the principal to engage with it;
- it was a collaborative process.

The framework evaluated the short-term impact of this collaborative PD initiative at four levels: personal, professional, collective and pupil. At a personal level, teachers reported the practice as beneficial for meeting their pupils' needs and their own needs. Highly significant were the findings related to teachers' changing beliefs and values about pupils' learning, and

classroom practices. Findings at a professional level showed most teachers operating at critical levels of understanding and use of the practice with enhanced pedagogy and PCK which, it is argued, plays a pivotal role in school improvement (Smith, 2007). Teachers' perceptions of pupils' outcomes rested largely on affective and psychomotor areas, with teachers' professional judgement being accepted over test scores, which is significant in a climate of increased accountability and performativity. Interestingly, teachers' use of self-evaluation for pupils' cognitive outcomes, while indicating teachers' professional responsibility towards pupils, was also accepted by principals. However, some teachers felt they should quantify results as evidence for parents, which may be reflective of an emerging accountability culture and the increased calls for the use of evidenced-based practices (Carter and Wheldall, 2008).

Perhaps the biggest unintended consequence was at a collective level, where teachers reported that participation in this collaborative PD initiative resulted in team teaching practices which facilitated a move from isolated privatism to collective responsibility (O'Sullivan, 2011) with teachers informally mentoring each other. This is remarkable given that the literature is replete with calls for teachers to work collaboratively and yet offers little guidance or support on how to do this.

Many positive factors were reported by participants in relation to the key factors that shaped their participation in the initiative:

- it had a 'fit' with their individual and school-level needs;
- teachers were motivated by their pupils' enjoyment and engagement;
- the structure of the initiative at various levels: feasible; time bound; collaborative; roles clearly identified; and it facilitated formative and summative assessment;
- teachers' openness and willingness;
- leadership support;
- funding and resources;
- outside influence of INTO.

Very few factors hindered the development of the practice. Challenges included: the low baseline levels of the pupils; teachers feeling they needed more time for training pupils; and timetabling, which may be reflective of schools having very tight structures and thus not being able to incorporate change easily.

In relation to the longer-term development of the practice, four out of five schools sustained the practice, with the number of teachers who implement it having doubled in the three years since 2007–08. These changes were maintained through leadership support for diffusion of practices to others, and through additional teachers' willingness to engage with the practice as a result of hearing positive views about it from other teachers.

Teachers' motivation to sustain practices was aligned with the practice meeting their personal and professional needs, which resulted in teachers taking ownership of and responsibility for the practice and helping with its diffusion to others. The PD Impact Evaluation Framework was used to evaluate longer-term impact at the four levels: personal, professional, collective and pupil. At a personal level, changing beliefs and attitudes towards pupils' learning and collective practices were expressed by a significant number of participants, along with evidence of enhanced self-efficacy and a greater enthusiasm for collaborative work (Cordingley *et al.*, 2003). At a professional level, evidence of teachers' deep learning and conceptual knowledge of the practice was reported, which led to teachers adapting the practice to meet the needs of their pupils and also to teachers being creative and using some of the principles and skills in other areas outside of this initiative. Teachers' perceptions of impact on pupils aligned with the three areas of the framework: cognitive, psychomotor and affective. What was significant here is that the positive impact on pupils was largely responsible for teachers' motivation to sustain the practice. Interestingly, principals reported the key impact of participation in the initiative was at a collective level, with this initiative and other collective practices now embedded in the schools. The unintended consequence of mentoring was

cited by many teachers as instrumental in its sustainability. Overall, the initiative design and impact led to cultural changes, with a large-scale move from individual practice to a 'more complex professional collaboration' (Gilleece *et al.*, 2009: 12; Conway *et al.*, 2011) in the form of PLCs.

The framework also highlights the importance of the processes that enabled or hindered the sustainability of practices. The role of leadership and an advocate for the practice, along with the development of PLCs to facilitate deep learning, shared pedagogy and reflective practice, were highlighted by many as supportive factors for sustainability of practices. The data also showed that the structure of the initiative was a very influential factor with interviewees, almost without exception. Teachers reported very few negatives, with many using their own agency along with leadership support to overcome these negatives, which were mostly centred on timetabling issues. Having used the framework to analyse the impact on teachers' professional learning, it was then necessary to synthesise this information to understand its significance.

## **Synthesis of Findings**

This research clearly demonstrates significant findings which may be of use to many schools as part of their school improvement process, and to many departments as part of their accountability measures and focus on school improvement outcomes, through providing: a Professional Development Impact Evaluation Framework; a sample of how to effect cultural change and a PD legacy; and a model of professionalism to enable the development and sustainability of PD practices.

### ***Professional Development Impact Evaluation Framework***

One of the most significant outcomes of this research is the Professional Development Impact Evaluation Framework which was devised to explore the impact of the PD initiative in this study. In the current climate of performativity and accountability, it is necessary to evaluate impact of PD to

promote improved teacher development, pupil outcomes, value for money (Rhodes *et al.*, 2004) and a guarantee for future designing and delivery of high-quality PD (NSW Institute of Teachers, 2008). This framework can answer the calls for evaluation to move from looking at teacher satisfaction to exploring impact on teacher practices, which in turn aim to enhance pupils' outcomes and school improvement. Given that the links between PD, pupils' outcomes and school improvement are not automatic, it was necessary to focus on the processes that would facilitate such links, something this new framework takes into consideration.

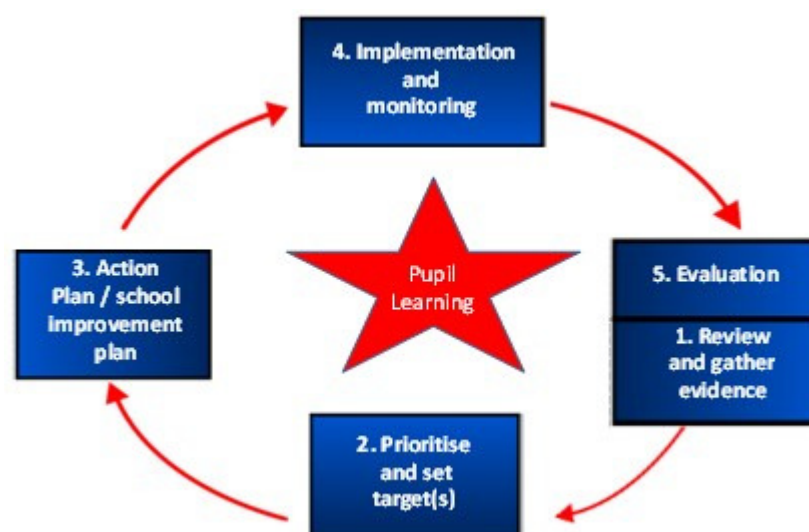
This framework may be useful in helping teachers and schools fulfil the need for PD to be 'adequately assessed and evaluated' (DES, 2011: 37) and in answering Bubb and Earley's (2008: 6) call for 'an investigation to design and test a series of questions for school staff about the quality of learning resulting from the opportunities made available to them'. Teacher PD must be 'strategic' to facilitate the journey from school self-evaluation to school improvement, and this framework allows for evaluation of strategic PD to promote improved pupils' outcomes and school improvement (Bubb and Earley, 2008: 23), as well as demonstrating teachers' professional responsibility and answering the call for accountability. Significantly for teachers, it can enable them to assess the impact of their own PD, to know if what they are doing makes a difference. To make the framework more user-friendly for teachers and schools, Appendix 9 outlines the meaning of each heading so that teachers can readily understand each section and subsequently align their development activity with the concepts on the framework.

Although previous frameworks exist, significant gaps were noted in their suitability for exploring the impact of PD – especially in the area of collaborative practices, which are seen as the cornerstone for change. Collaborative professional dialogue and practice are required for school self-evaluation, which may be challenging in a culture where isolated privatism is more valued by some than collective responsibility (O'Sullivan, 2011). One of the models assumed that teachers collaborate as part of their performance

management, which may result in contrived collegiality instead of PLCs focused on learning. There was no acknowledgement of various forms of collaboration, the development of PLCs, having shared views of pedagogy, and PCK, all of which are heavily endorsed as essential features for teacher learning and sustainability of practices. The importance of teachers' deep levels of learning (Hall and Hord, 1987) and the significant role that teacher attitudes and beliefs play in the sustainability of practices were not very explicit. The framework devised in this study, from a synthesis of others with new additions, acknowledged all of the above dimensions necessary for evaluating the impact of PD.

However, it is important to note that when collaborative practices are established within schools, as evidenced in the schools in this study, then teachers need to collaboratively plan their PD activities with the end in mind (Bubb and Earley, 2008; Earley and Porritt, 2010). To do this, the first three levels of the school improvement process cycle (see Figure 6.1) could be incorporated into the framework: Review and gather evidence; Prioritise and set targets; and Action plans (PDST, 2011).

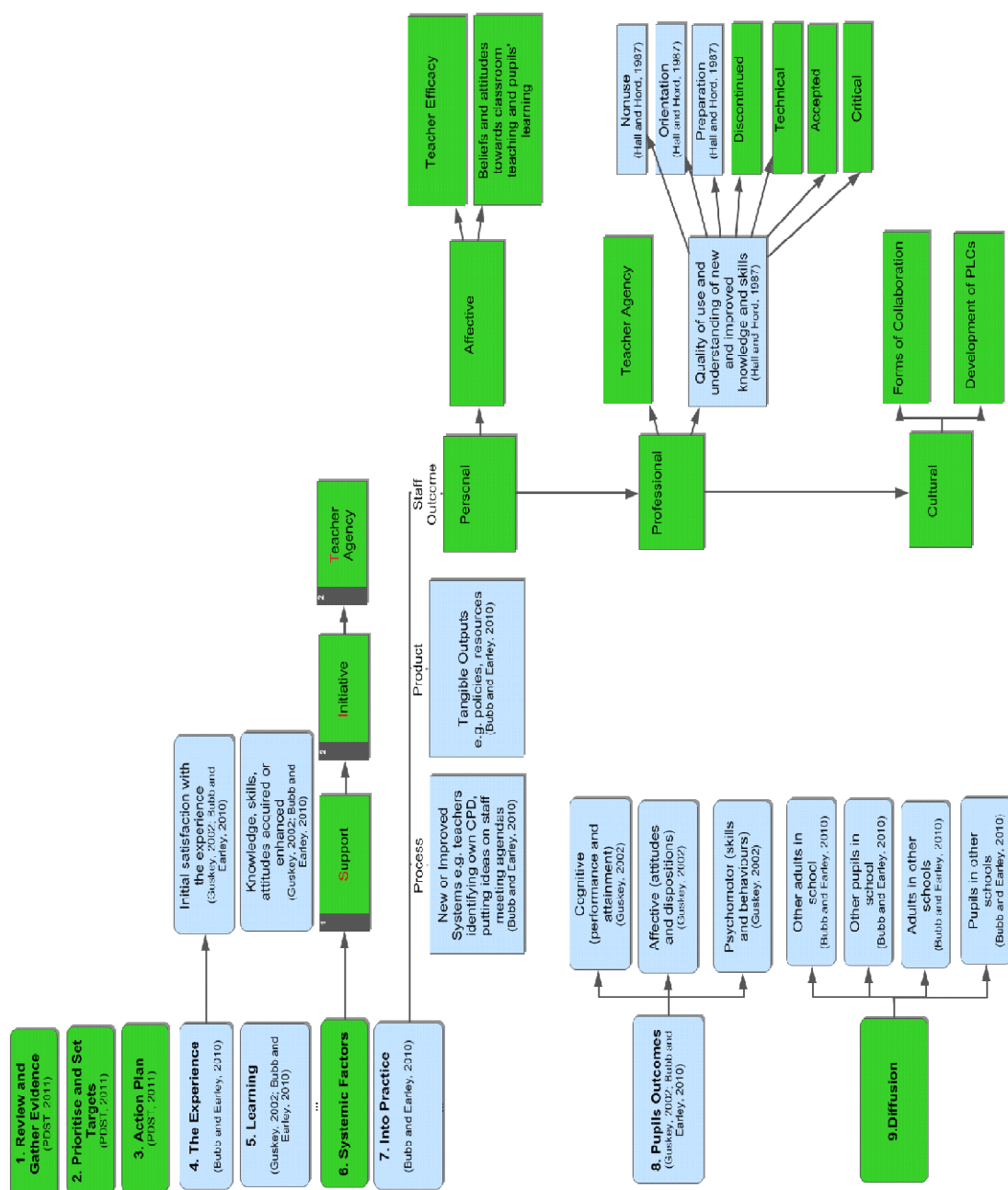
**Figure 6.1 School Improvement Process**



These are similar to Bubb and Earley's (2008: 61) three levels of 'baseline picture, goal and plan', where schools review where they are currently by gathering evidence and then prioritising what they want to achieve, setting a

target and then devising plans to get there: in essence, self-evaluating. See Figure 6.2 for a framework which schools can use to collaboratively plan and evaluate their PD.

**Figure 6.2 The Professional Development Impact Evaluation Framework**



### ***How to effect cultural change for school improvement***

Another significant point is that this new framework is reflective of the features as evidenced in this research, where the PD legacy not only resulted in practices being sustained but also included a PD multiplier where the impact of the collaborative PD initiative extended beyond the initiative itself. This encompassed: teachers using skills and principles from it across other subject areas; a movement away from textbooks; mentoring and other collaborative practices among teachers; diffusion of practices; changes in teachers' beliefs, attitudes and values; other collaborative practices and changes at a cultural level as illustrated in Figure 5.2. Changes at a cultural level may be the most important outcome of teachers' and principals' engagement with this PD initiative. For school improvement 'the real agenda is changing school culture not single innovations' (Stoll and Fink, 1996: 45–46), and therefore schools and other stakeholders in education may need to look at creating a PD legacy that incorporates a PD multiplier.

Teachers were motivated to engage with the initiative by the 'product' – the literacy initiative itself – in a bid to make short-term improvements in literacy, but the process of engagement has resulted in a more long-term, substantial benefit of cultural change. Although these case studies represent a micro example of bringing about cultural change, it demonstrates the processes that may be required to enable these cultural changes to take place on a larger scale in schools. While this study has shown the PD legacy of the PD initiative, it has revealed 'Systemic Factors' or S.I.T. (Support, Initiative, Teacher Agency) features that contributed to these impacts (see Figures 5.1 and 5.3 and Appendix 9 for details); few studies have incorporated findings on impact and processes for PD (Cordingley *et al.*, 2008). These important features are summarised in Tables 5.2, 5.3 and 5.4 in Chapter 5.

It is important to acknowledge that not all teachers engaged with the initiative in the same way. A number of typologies of teacher engagement were proposed based on the evidence in this research, and these were cross-referenced against the systemic features for facilitating the PD legacy. This

thesis argues that these may have implications for teacher PD, which is centred on the teacher as the change agent. Interestingly, the 'Advocates' had a significant role to play in bringing the initiative to the attention of the principal and for assuming responsibility for it. Furthermore, 'Professional Developers' were largely instrumental in the diffusion of the practice, and some in taking over the role of the advocate following retirements or staff moving on.

What is significant here is that all but one of the teachers engaged with the initiative in a critical manner, albeit to differing degrees. Therefore, the emphasis needs to be on creating more expansive supportive learning environments that will 'fit' individual teachers' needs (Hodkinson and Hodkinson, 2005) and enable them to reach an 'accepted' level of practice for sustainability of the initiative or a 'critical' level of practice which may facilitate a PD multiplier, as in this study, reflective of a transformative model of PD (Kennedy, 2005). However, teacher dispositions or typologies were affected by the other aspects of support and the initiative itself, which were very influential in teachers engaging with and sustaining the PD practice. While these small case studies have shown contributing factors to teachers developing and sustaining their professional learning, they were also influenced by an emerging model of agentic professionalism which existed within this study and is in stark contrast to that within the wider level of education, where there is a dominant trend towards a model of managerialist professionalism.

### ***Agentic Professionalism***

Three key features of teacher professionalism emerged from this research as being central to a developing notion of agentic teacher professionalism: a bottom-up approach with top-down support; autonomy and professional trust; and collaborative practice and collective responsibility.

#### *A bottom-up approach with top-down support*

A significant feature for developing and sustaining teachers' professional learning in this research emerged from the 'grassroots approach' (Bubb and Earley, 2008: 19) where teachers were responsible for bringing the literacy initiative to the principals. Principals supported this by: opting their schools into the initiative; showing their teachers they valued it; attending the in-service training day; and facilitating the diffusion of practices to others by providing time and resources. The alignment of teachers' and principals' aims for engaging with the initiative was also instrumental. While teachers and principals were motivated by the 'product', some principals were also motivated by the collaborative 'process' involved. A mixture of top-down and bottom-up approaches to PD would provide a better balance (Fullan, 1993; Stoll and Fink, 1996; Priestley *et al.*, 2011). However, what distinguishes this model of professionalism from other models is the importance of top-down support coupled with the necessary element of a bottom-up approach.

#### *Autonomy and professional trust*

What was very evident in this study was principals' trust in their teachers. They facilitated their participation in the initiative and supported it because their teachers valued it. What is surprising is that they did not micromanage this or insist on quantifiable pupils' outcomes only as a benchmark for success. Teachers responded to this professional trust afforded to them by showing evidence of self-evaluation in relation to pupils' outcomes, thus showing a professional responsibility. Interestingly, one teacher was keen to use a test to get quantifiable evidence to show parents, which may once again be indicative of an emerging managerialism that values quantifiable accountability. Though there may be a market approach or emerging managerialism in Ireland that emphasises accountability, with teachers reporting standardised test results to the DES, Irish teachers may need to prove that self-evaluation may be a richer form of accountability that can enable teachers to be more productive in supporting the requirements of 21st-century learners (Collins and Dolan, 2011). However, this would require the DES to show similar levels of trust to schools as was afforded by

principals to their teachers in this research, which resulted in teachers being creative and taking ownership of the process that resulted in cultural change: the essential component for school improvement. Trust was central to the third feature of professionalism that emerged from this study: collegiality and PLCs.

#### *Collaborative practice and collective responsibility*

Diffusion of learning was essential for sustainability of practices in the schools. This required support from principals in the form of distributed leadership, where teachers developed learning cultures and PLCs through modelling procedures for others and developing a collective responsibility for pupils' learning. What is significant here is that collaborative practices were not mandated. However, principals valued them and supported them by providing time and hiring teachers who were open to collaborative practices. While collaborative practices are assumed as part of performance management in other countries and endorsed as being pivotal for the school improvement process, this study has shown how teachers were willing to engage in a collaborative PD that aligned with their need to improve pupils' literacy levels. Thus, teachers need a focus for collaboration that is aligned with their personal needs.

It is important to remember that teachers are more concerned with what happens at classroom level than at departmental or national level, so engaging in collaborative practices for what teachers may perceive as an accountability agenda may be difficult to achieve. However, schools in this study achieved a change at cultural level with collaborative practices embedded that are based on professional trust between teachers and principals. Therefore, they may be more willing to engage with future self-evaluation processes at whole-school level with the aim of improving pupils' outcomes, thus showing a model of professional responsibility that is different to the dominant one of managerialism focused on accountability and performativity, which to date has produced only mediocrity (Sachs, 2006). This new model of agentic professionalism that is based on teachers' and

principals' alignment of values that are focused on pupils' outcomes and school improvement involves teachers using their human agency to mediate structures of managerialism, where practice is largely prescribed by policy. Instead, teachers engage with external mandates in a critical way and assume responsibility for their own professional learning, where they have evidence that they can make – and are making – a difference to pupils' outcomes and school improvement. The model of agentic professionalism as espoused here would have the components as laid out in Table 5.7.

## **Recommendations**

In light of an emerging managerialism in the ROI and elsewhere which focuses largely on accountability measures for schools, a number of recommendations are made resulting from this research:

- Given the significance of teachers' professional learning in the school improvement process, schools and departments should focus on evaluating the impact of teacher PD. It is important to find ways to evaluate the impact, and this research provides a Professional Development Impact Evaluation Framework (Figure 5.1) which can be used for such evaluations. This framework acknowledges the importance of moving from exploring impact in terms of teacher satisfaction to evaluations that focus on measuring changes at various individual and collective levels: teacher practices and behaviours; teacher beliefs and attitudes; teacher skills and knowledge; and impact on pupils at various levels.
- The school improvement process requires professional dialogue at whole-school level, where schools self-evaluate by identifying their strengths and concerns and subsequently prioritising and setting targets. However, to facilitate the journey from self-evaluation to school improvement, teacher PD needs to be planned in advance and evaluated (Bubb and Earley, 2010). Where schools are advanced in this professional dialogue at whole-school level, the Professional

Development Impact Evaluation Framework as presented in Figure 6.2 may be of assistance to schools in planning and evaluating their PD.

- Where schools are not advanced in collaborative processes, they may need to engage with a collaborative PD practice, focused on an area that is aligned with their needs, as was carried out in this study. Sustainability of practices is necessary for school improvement, and in order to try and achieve practices that are sustainable with a potential multiplier effect, priority should be given to PD activities that acknowledge the necessary systemic features (forms of support, the PD initiative and teacher agency) that are outlined on the PD framework and in Appendix 9.
- This research has identified that principals have a key role in developing and sustaining teachers' professional learning. However, it also showed that their practice as principals varied somewhat. This suggests a need to identify the PD requirements of principals more effectively so that they can be supported in their role as a key component in developing and sustaining teachers' professional learning. It is important to create conditions in which principals can collaborate and learn about teacher PD from each other.
- Teachers should engage with the self-evaluation process, as it provides a space for teacher autonomy within a more agentic form of professionalism.
- Departments and government leaders should resist managerialism, which is part of the global education reform movement (Sahlberg, 2010), and continue with the strong tradition of respect for teachers. They should build on this by standing by their teachers by engaging with an agentic model of professionalism which encompasses: a bottom-up approach with top-down support; autonomy and professional trust; and collaborative practice and collective responsibility. This model of professionalism, as evident in this study, enabled the development and

sustainability of PD practices and the cultural changes that are necessary for school improvement.

### **Suggestions for application and for further research**

Future research could explore the impact on teachers of this emerging managerialism in the Irish context. The issue of professional trust is central to developing learning cultures and taking risks to enhance pupils' outcomes and school improvement. This professional trust needs to be at school and departmental levels. With much rhetoric about other education systems – for example in Finland, where the self-evaluation and school improvement process has resulted in enhanced pupils' outcomes and school improvement – an interesting point of research might be to take the model of agentic professionalism, which is similar to the trust-based system in Finland, and see how far departments of education have travelled in this trust process.

Another area of research could focus on the use of the Professional Development Impact Evaluation Framework by teachers, schools and the DES, to enhance the quality, planning and outcomes of PD. This framework continues to be a work in progress, as it has not been tested as fit for purpose by teachers, schools and the DES. Future research could involve this being tried and tested in the various contexts, using a more user-friendly version which is currently being developed.

## **A Reflexive Account**

### **Description**

Undertaking a doctoral research programme was not something I had ever intended to do, rather it was an opportunity that presented itself at the right time and place in my life, albeit quite serendipitously. I embarked on this doctoral journey with the firm belief that I would walk away from it if I was not enjoying it or indeed if it was too challenging. Becoming a ‘doctor’ of research was not my goal; for me the focus was on the process, my learning, and it was not a means to an end. At the outset of my studies I considered what might be the focus of my research, and I decided to focus on a particular project that I had been engaged in through the INTO, involving a peer tutoring initiative in five schools. I had enjoyed my involvement in the project, and as I considered the possibility of undertaking research, I was drawn to the question: ‘So what?’ Had the project ‘worked’? Had I ‘made a difference’?

At the time this research started, therefore, there was what can only be described as a high degree of randomness – an almost chance commitment to a doctorate, and a decision to research a project I had had some involvement in, but which was now over. My motivation was the combination of a desire to undertake a significant intellectual challenge mixed with a healthy dose of professional curiosity. In this short codicil to the thesis I want to reflect on how these apparently random and serendipitous circumstances have since developed, and how my research, my professional work and national policy agendas in Ireland seem to have coalesced in ways that I think are now anything but random.

### **Interpretation**

As mentioned in Chapter 1 of this thesis, I have been involved in the area of teacher professional development (PD) for some time, both as a practitioner in the classroom and as a facilitator and presenter on PD programmes for teachers. For me, the most significant aspect of engaging with this topic as

part of this research was the need to clearly articulate and define what is meant by teacher PD. Previously I thought of it largely in terms of 'input', with up-skilling of teachers to enable them to change their practices to result in better pupil outcomes. For me it was synonymous with courses or training (Crawford, 2009) where the emphasis was on the quality of the input. In this instance, teachers were largely the passive recipients of information.

At the beginning of my journey, teacher PD was not mandatory in the Republic of Ireland. However, all teachers had received PD for the introduction of the revised curriculum from 1999 to 2009 during school time. Many teachers also undertook a PD course in the summer for which they received three extra personal vacation (EPV) days during the school year. Aside from this, teachers engaged with PD courses and workshops of their own volition and interest. A key feature of the system was high levels of teacher autonomy, but arguably a drawback of this approach was that there was little evidence of anything systematic in Irish teachers' experience of PD. It varied enormously within individual schools, let alone between schools, and the relationship between PD undertaken and wider organisational objectives was not always clear. There was very little evidence of systematic evaluation. That said, for me, working with teachers at postgraduate level was interesting and rewarding, as they elected to engage with the course and therefore their enthusiasm and desire to learn were evident.

As I reflect on the period of my study and the journey I have travelled, I am aware not only of how much I have changed my own views, but also of how much the wider context described above is changing. In important respects these different worlds may be converging, but in ways that are not necessarily unproblematic. One clear change to me in my own thinking, is that I now realise how complex and contested the notion of teacher PD is, with differing views posited by people at different levels of reality, most obviously the distinction between macro and micro levels. I had not previously focused on PD at the macro level, as a driver of system change, and indeed did not think about it in these terms, yet I have since become

acutely aware that the challenges at a global level influence what happens at the micro level (Bottery, 2006).

This has become particularly evident to me with the government's reaction to the PISA results in 2009. Like other countries, Ireland is competing in a global knowledge economy and therefore feels the need to score well in these rankings. What happened in response to declining performances in PISA and in national assessments was the introduction of the National Strategy to Improve Literacy and Numeracy (DES, 2011). These strategies place considerable emphasis on teacher PD and school self-evaluation as a means of school improvement. Interesting to note is that despite economically straitened times, the government still sees the need to invest in teacher PD as a means of improving standards, pupils' outcomes and ultimately economic competitiveness. A consequence of these developments is that PD for all teachers is now mandatory, with the literacy and numeracy strategy mandating 20 hours' PD every five years. This is arguably a change of transformational proportions in Irish education policy, even though there is no framework yet to ensure that this happens. As an accountability measure (now much more significant in Ireland than when I undertook the initial project), PD courses for teachers are to be 'accredited and adequately assessed and evaluated' from the school year 2012–13 (DES, 2011: 37).

In many ways I welcome this, as it suggests a much higher priority for PD. However, for me the most significant aspect of this, in light of my own learning, is the limiting view of PD as still being largely synonymous with courses and thus 'input', and the suggestion that only PD that is accredited is of value. Nor is it clear what 'accredited' means here. Anecdotal evidence suggests it means formal PD courses provided by, for example, teacher education centres, who are currently being asked to look at setting up a tracking system for PD courses undertaken by teachers. There is an assumption that 'input' will result in better pupil outcomes, and yet my journey has taught me that this is far from automatic, with many systemic factors required to enable it to happen. What is even more interesting is that no guidance as to how PD might be assessed and evaluated was given.

There is therefore an expectation, explicit in policy, that PD will be evaluated, but teachers are provided with no support to undertake this complex activity. In short, there is an exhortation in policy discourses that has no corresponding support mechanisms towards achieving it.

As I come to the end of my formal studies, I have become very aware that the issues that have preoccupied me have, during the time of my studies, also become questions of national concern and priority. At a time of intense austerity in Ireland there is a real need to demonstrate that investment in PD *works* – that it has an impact. Whilst I certainly do not claim that my work provides a definitive answer to this question, I do believe that the framework I have developed within this research makes a useful contribution to addressing this complex question. As a consequence I have become very aware of the extent to which there has been a ‘coming together’ of my research and policy. At the start of my journey, any such links were tenuous at best; they have now moved centre stage.

This convergence of interests is not confined to the areas of research and policy but has extended to my professional life also. In May 2011 I was contacted by a colleague and encouraged to apply for a new post in the Professional Development Service for Teachers (PDST). This is a relatively new service in Ireland and its establishment reflects a much more coordinated and systematic approach to PD. The service has a key role in supporting the implementation of the national strategy relating to literacy and numeracy, and therefore promoting practices of school self-evaluation. In September 2011 I commenced work with the PDST as a regional advisor and now find myself at the heart of policy implementation relating to professional development.

The work I am doing now is not at all what I expected to be doing when I commenced my doctorate. Indeed, the service I now work for did not even exist at that time. This is hugely exciting, but also complex and challenging. Within policy there are clearly expectations as to what PD should look like, and this remains a largely ‘input-output’ based model (notwithstanding that

there is little understanding of what output looks like). At the same time, I work in a team in which my own identity is undergoing a change. Not only have I had to transition from classroom teacher to 'PD consultant', but in that new role I am also reconciling my experiences and identity as a developing researcher. This is both exciting and unsettling. However, my experience as a researcher has, I believe, helped prepare me for it.

My journey started when I commenced my doctorate and I was driven by a simple question, posed by many teachers: Was the work I was doing making a difference? It was a question seemingly posed in isolation and driven purely by personal curiosity. As my studies developed I became aware that changes in the national policy agenda meant that the question I was addressing, and the context of my research, were not simply a matter of personal curiosity, but rather issues of national interest in education policy terms. Furthermore, as policy has developed (at a very rapid rate relative to the preceding years) I have found myself drawn into its implementation. This is most exciting. Although there are some aspects of the national policy agenda that conflict with the views and conclusions developed from my research, I can also see the spaces in which new and exciting debates about PD are emerging. Given the embryonic status of this agenda, it is clear that much is fluid, and there are many opportunities to shape future developments in ways that are consistent with my research. At present, there are no fixed solutions, as Irish education policy finds its way in difficult times. My experience as a researcher has made me more comfortable with this absence of certainty. My research has helped me understand that straightforward solutions are often too simplistic to address the complex nature of the problems faced in schools. Perhaps it is less important to have the right answers than to pose the right questions.

I am hopeful that my evaluation framework can make a contribution to this process. I do not claim it provides the answers, but I do believe it can help teachers ask the right questions. As a consequence, it can enrich the dialogue among teachers about teaching and learning, and through this, in some small way, support improvement.

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## **Appendix 1            Interview Schedule**

### **Prompts for researcher:**

- Assurances re confidentiality and anonymity
- Completion of consent forms
- Permission to record
- Outline approximate duration of the interview – the interview should take no longer than an hour
- This interview seeks to get your views on being involved in collaborative practice for the peer tutoring initiative for literacy in 2007, and to see how it has impacted on your teaching and learning in the short term and in the longer term. It will also explore if and how the initiative is being used in the schools and the processes that enabled and inhibited such use. However, I do have some key areas that I hope we will cover, so I will check my prompts from time to time to make sure we address all areas.
- Please state date, time, place and ‘interview with...’ at start of digital recording

Personal details – Can you tell me about yourself – your role, years’ experience, qualifications...

### **Research Question 1 – Short-term Implementation: How did the collaborative PD initiative develop in each of the 5 schools?**

- Can you tell me how the school became involved in the original initiative?
- What were the driving forces for you to become involved?
- Had you any previous experience of working collaboratively prior to this initiative?

### **Research Question 2 – Short-term impact: How do teachers describe the impact of the collaborative PD at the end of its initial implementation?**

- Can you describe the impact of being involved in the collaborative initiative at the end of its initial implementation? (Knowledge; skills; attitudes at personal, professional, collective levels; pupils.)

### **Research Question 3 – What were the key factors that shaped the changes in teachers’ professional practice and learning during the ten-week period?**

- What factors had a positive impact on your new practice and learning?

- What factors had a negative impact on your new practice and learning?

**Research Question 4 – Longer term development: What has happened since?**

- To what extent have you maintained the changes in practice over time?
  - Can you describe how you use it?
  - Can you tell me about any modifications you have made to the initiative (probe for why if necessary)?

**Research Question 5 – Longer term impact: How do teachers describe the impact of the PD initiative?**

- How would you describe the impact of being involved in that initiative three years on?
  - Probes – Personal, professional, collective levels (interpersonal and organisational), pupils outcomes.
  - What concerns do you have regarding the collaborative initiative?
- Can you tell me about any unintended outcomes?
  - Probes – Products or Processes
- Can you summarise for me where you see yourself right now in relation to the use of the collaborative initiative?

**Research Question 6 – What were the key factors that shaped the long-term development and sustainability of teachers' professional practice and learning?**

- What factors had a positive impact on the long-term development and sustainability of your professional practice and learning?
- What factors had a negative impact on the long-term development and sustainability of teachers' professional practice and learning?
  - Probes (funding, support, change of staff, misalignment between principal (teacher) and teacher's needs and requirements)

**Is there anything else you wish to add?**

## Appendix 2 Ethical Approval Form EA2

### Ethical Approval Form:

#### Human Research Projects



This form must be completed for each piece of research activity whether conducted by academic staff, research staff, graduate students or undergraduates. The completed form must be approved by the designated authority within the Faculty.

**Please complete all sections.** If a section is not applicable, write N/A.

<b>1 Name of Applicant</b>	Fiona King	
	Department: N/A	Faculty: N/A
<b>2 Position in the University</b>	N/A	
<b>3 Role in relation to this research</b>	Principal Investigator	
<b>4 Brief statement of main Research Question</b>	<p>An examination of a collaborative PD initiative that seeks to explore:</p> <ol style="list-style-type: none"> <li>1. Short-term Implementation: How did the collaborative PD initiative develop in each of the 5 schools? <ol style="list-style-type: none"> <li>a. Why did the school get involved in the initiative?</li> <li>b. Who was involved?</li> </ol> </li> <li>2. Short-term impact: How do teachers describe the impact of the collaborative PD at the end of its initial implementation? <ul style="list-style-type: none"> <li>• On a personal level</li> <li>• On a professional level</li> <li>• On pupils' outcomes</li> <li>• On a collective level</li> </ul> </li> </ol>	

- 
3. What were the key factors that shaped the changes in teachers' professional practice and learning during the ten-week period?
    - What factors had a positive impact on the implementation of the initiative?
    - What factors had a negative impact on the implementation of the initiative?
  4. Longer term development: What has happened since?
    - To what extent have teachers maintained their changes in practice and learning over time?
    - How have teachers maintained these over time?
  5. Longer-term impact: How do teachers describe the impact of the PD initiative?
    - On a personal level
    - On a professional level
    - On pupils' outcomes
    - On a collective level
  6. What were the key factors that shaped the long-term development and sustainability of teachers' professional practice and learning?
    - What factors had a positive impact on the long-term development and sustainability of teachers' professional practice and learning?
    - What factors had a negative impact on the long-term development and sustainability of teachers' professional practice and learning?

<b>5 Brief Description of Project</b>	<p>CPD is at the heart of the teaching profession, and the lack of suitable evaluation of CPD is seen as the missing link in the CPD chain which aims to result in changes in teacher practices and attitudes that will enhance student outcomes and result in school improvement.</p> <p>The purpose of the research is to evaluate a collaborative CPD initiative that I was involved in as principal researcher in 2007/2008. The aim at the time was to evaluate the impact on pupils' reading scores. The aim now is to explore the impact of the initiative on the teachers involved and to see if it has left a legacy in each of the five schools where it was carried out. It seeks to explore the process of change for the teacher involved with a view to understanding change.</p> <hr/> <p>Approximate Start Date:                      Approximate End Date:</p> <p>October 2010    December 2011</p>
<b>6 Name of Principal Investigator or Supervisor</b>	<p>Fiona King</p> <hr/> <p>Email address:                      Telephone: 353 87</p> <p><a href="mailto:fionac.king@gmail.com">fionac.king@gmail.com</a>                      6427050</p>
<b>7 Names of other researchers or student investigators involved</b>	<p>1.N/A</p> <p>2.</p> <p>3.</p> <p>4.</p>
<b>8 Location(s) at which project is to be carried out</b>	<p>In 5 urban disadvantaged schools in the Republic of Ireland.</p>
<b>9 Statement of the ethical issues involved and how they are to be addressed – including a risk assessment of the</b>	<p>All research work carried out will be in accordance with UL's Ethical Principles for conducting work with Humans, and also according to the Revised Ethical Guidelines for Conducting Ethical Research as set out by the British Educational Research Association (<a href="http://www.bera.ac.uk/publications/guidelines/">http://www.bera.ac.uk/publications/guidelines/</a>).</p>

**project based on the vulnerability of participants, the extent to which it is likely to be harmful and whether there will be significant discomfort.**

**(This will normally cover such issues as whether the risks/adverse effects associated with the project have been dealt with and whether the benefits of research outweigh the risks.)**

This research is 'ethically viable given the societal norms' (Anderson, 1998: 23) and ethically sound with no significant risks to participants involved. However, the following methods of mitigation will be employed:

- seeking consent and informed consent for interviews
- providing a guarantee of confidentiality and anonymity
- validation of transcripts.

With regard to specific sources of data collection and relevant measures to ensure ethical management, I present the following:

Interviews (with approximately 15 teachers / principals):

- All interviewees will receive a written summary of the project brief and will be asked to sign a consent form. The consent form will confirm that respondents are aware of the project's aims, how the data will be used, and their right to withdraw at any time. It will make clear that interviews will be recorded digitally (and that interviewees may refuse to be recorded).
- Consent for taping interviews will be obtained, and explanations regarding why the interview is being taped, what the tapes will be used for, where they will be stored and if they will be disposed of after transcription will be provided. All data will be stored securely, protecting it from loss or theft.
- Sometimes when interviews are officially over, more disclosures are made which would require written consent for use. Ethical choices may also be necessary in cases where sensitive information is obtained.
- Respondents will be told how the information will be used and they will get a guarantee regarding anonymity. All documents and transcripts of interviews will be coded for anonymity using numbers. Participants will not be readily identifiable, as the context is

	<p>described as urban DEIS schools of which there are many in Ireland.</p> <ul style="list-style-type: none"> <li>• Interviewees will be made aware that they can ask for the tape to be turned off at any stage during the interview or when answering a particular question and that their data not be used. The interviewees will be offered copies of the interview transcripts for validation.</li> <li>• The research work will be overseen by my supervisor, who will be consulted about all aspects of the project in relation to ethical issues.</li> </ul> <p>Documentation: the proposal envisages a range of documentation being collated. This will be kept securely and anonymised on presentation.</p>
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### Ethical Approval From Other Bodies

<p><b>10 Does this research require the approval of an external body?</b></p>	<p>Yes <input type="checkbox"/>                      No <input checked="" type="checkbox"/></p> <hr/> <p><b>If “Yes”, please state which body:-</b></p>
<p><b>11 Has ethical approval already been obtained from that body?</b></p>	<p style="text-align: right;">Yes <input type="checkbox"/> – Please append documentary evidence to this form.</p> <p>No <input type="checkbox"/></p> <p><b>If “No”, please state why not:-</b></p> <p><b>N/A</b></p> <p><b>Please note that any such approvals must be obtained and documented before the project begins.</b></p>

## **Appendix 3                      Information Permission Form**

### **The purpose of the research**

This research is part of a doctoral study which aims to formally evaluate the collaborative PD initiative which took place in 2007/2008 involving the collaborative implementation of Peer Tutoring for literacy. It seeks to analyse how teachers' participation in collaborative practices impacted on their teaching and learning in the short term and more importantly in the longer term. It will also explore if and how the initiative is being used in the schools and the processes that enabled and inhibited such use. It is important to note that this research has not been commissioned by any organisation or agency. Data will be collected through interviews and it is hoped that this research may be useful in providing schools with a framework against which to measure their impact of PD in light of the move towards self-evaluation within the inspection process. To this end, it is planned to also present this work at academic conferences, in academic journals and in other related documents such as submissions to relevant policy bodies.

### **Informed consent**

All research will be conducted according to the ethical guidelines set out by the British Educational Research Association. Interview participants may ask at any time for clarification of anything they don't understand or would like explained further. Participants are not obliged to answer any of the questions that are put to them and are free to exit the research process at any time. The researcher will ask permission to record the interview.

### **Confidentiality**

Interview tapes and transcripts will be used only for research purposes, and third parties will not be allowed access to them during or after the course of the research project. Any interview transcripts will be encoded so that no record of the participants' names and data exist side by side.

## **Anonymity**

Schools and individuals will be made anonymous; names from interviews will not be mentioned in any publications that arise from the research, unless the school, with the full permission of participants, chooses to disclose names in publicity material.

## **Feedback**

Participants will be sent a summary report on the findings if they wish.

## **Consent**

If you require any further information on this project prior to consenting to participation, please contact me on 087 6427050 or by email at [fionac.king@gmail.com](mailto:fionac.king@gmail.com).

I understand the nature and purpose of this research and I consent to being interviewed. I understand that I do not have to answer any of the questions and that I may exit the interview at any time.

I do / do not consent to the interview being recorded.

I do / do not wish to be sent a summary of the findings when the project is completed.

Signed.....

Date.....

## Appendix 4      First Round of Codes

<u>Name</u>	<u>Code</u>	<u>Research Question</u>
<u>The experience</u>		
TE: Initial satisfaction	TE-Satis	2
<u>Learning</u>		
L: Knowledge / skills / attitudes	L- Know/sk/at	2
<u>Organisation support</u>		
OS: How school helps / hinders	OS – Hel / Hin	3.1, 3.2, 6.1, 6.2
<u>INTO Practice</u>		
IP: Personal Outcomes	Pers	5.1
IP: Professional Outcomes	Prof	4.3, 4.4, 4.5, 5.2
IP: Collective	Coll	4.1, 5.4
IP: Process	Proc	4
IP: Product	Prod	4
<u>Cascading</u>		
C: Cascading other adults and pupils	C - Others	4.2, 6.1
<u>Pupils Outcomes</u>		
PO: Pupil	PO - Pup	5.3
<u>Driving Force</u>		
DF: Driving Force	DF	1
<u>Factors</u>		
F: Positive Impact	F - Pos	3.1
F: Negative Impact	F - Neg	3.2
<u>Leadership</u>		
L: Leadership	L: Lead	
<u>Voluntary vs. Mandatory</u>		
VM: Voluntary vs. Mandatory	VM: Vol / Man	3, 6
<u>DEIS</u>		
D: DEIS	D: DEIS	
<u>Changes in practice</u>		
CP: Changes	C: Changes	4.1, 4.2
<u>Factors re Collaborative Practices</u>		
FCP:	FCP	
<u>Gold Dust</u>		
GD:	GD	

## Appendix 5 Illustration of Second Round of Codes

### Driving Force

DF: Public/Official Driving Force	DF-PUB	1.1, 1.2
DF: Private Driving Force	DF-PRIV	1.1, 1.2

### Previous Collaborative Practice - PCP

PCP: Affirmation / Negation	PCPA/N	1.3
PCP: Format of Previous Collaborative Practice	PCP-FORM	1.4

### Short Term Into Practice

STIP: Product	STIP-PROD	2
STIP: Process	STIP-PROC	2

### Short Term Into Practice – Staff Outcome

STIP: Personal – Affective - Class	STIP-P-AFF-CLASS	2.1
STIP: Personal – Affective - Pup	STIP-P-AFF-PU	2.1
STIP: Professional – Efficacy/Agency	STIP-PR-EFF/AGE	2.2
STIP: Professional – Commitment / Ownership	STIP-PR-COM/OWN	2.2

### Short Term Into Practice – Staff Outcome – Professional Practice and Learning (PPL)

STIP: PPL–Knowledge – Procedural / Conceptual level	STIP-PPL-KN-PR/CON	2.2
STIP: PPL–Use of knowledge and skills-Mechanical level	STIP-PPL-USE-MECH	2.2
STIP: PPL–Use of knowledge and skills-Routine level	STIP-PPL-USE-ROU	2.2
STIP: PPL–Use of knowledge and skills-Refined/Int level	STIP-PPL-USE-REF	2.2
STIP: Professional Practice and Learning-Pedagogy	STIP-PPL-PED	2.2

### Short Term Into Practice – Staff Outcome - Collective

STIP: Collective – Interpersonal Capacity	STIP-COLL-INT	2.4.1
STIP: Collective – Forms of Collaboration	STIP-COLL-FORM	2.4.2
STIP: Collective – PLCs	STIP-PLC	2.4.2
STIP: Collective – Culture	STIP-CUL	2.4.2

### Short Term Pupils Outcomes

STIP: Pupils' Outcomes – Cognitive level	STIP-PUP-COG	2.3
STIP: Pupils' Outcomes – Affective level	STIP-PUP-AFF	2.3
STIP: Pupils' Outcomes – Psychomotor level	STIP-PUP-PSY	2.3

### Short Term Positive Factors

STF: Positive – Leadership-Alignment	STF-POS-LEAD-ALI	3.1
STF: Positive – Leadership-Creating Organisational Capacity	STF-POS-LEAD-COC	3.1
STF: Positive - Leadership-Empowering Teachers	STF-POS-LEAD-EMP	3.1
STF: Positive – Initiative–Structure	STF-POS-IN-STR	3.1
STF: Positive – Initiative–Success	STF-POS-IN-SUC	3.1
STF: Positive – Teachers–Alignment	STF-POS-TEA-ALI	3.1
STF: Positive – Teachers–Openness and Willingness	STF-POS-TEA-OW	3.1

### Short Term Negative Factors

STF: Negative – Practical	STF-NEG-PRAC	3.2
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### Longer Term Into Practice

LTIP: Product	LTIP-PROD	5
LTIP: Process	LTIP-PROC	5
LTIP: Personal – Affective – Class	LTIP-P-AFF-CLASS	5.1
LTIP: Personal – Affective – Pup	LTIP-P-AFF-PUP	5.1
LTIP: Professional – Efficacy/Agency	LTIP-PR-EFF/AGE	5.2
LTIP: Professional – Commitment and Ownership	LTIP-PR-COM/OWN	5.2

<u>Longer Term Professional Practice and Learning (PPL)</u>		
LTIP: PPL–Knowledge- Procedural / Conceptual level	LTIP-PPL-KN-PR/CON	5.2
LTIP: PPL–Use of knowledge and skills-Mechanical level	LTIP-PPL-USE-MECH	5.2
LTIP: PPL–Use of knowledge and skills-Routine level	LTIP-PPL-USE-ROU	5.2
LTIP: PPL–Use of knowledge and skills- Refined/Int level	LTIP-PPL-USE-REF	5.2
LTIP: PPL–Pedagogy	LTIP-PPL-PED	5.2
<u>Longer Term Into Practice – Staff Outcome- Collective</u>		
LTIP: Collective – Interpersonal Capacity	LTIP-COLL-INT	5.4.1
LTIP: Collective – Forms of Collaboration	LTIP-COLL-FORM	5.4.2
LTIP: Collective – PLCs	LTIP-PLC	5.4.2
LTIP: Collective – Culture	LTIP-CUL	5.4.2
<u>Longer Term Pupils’ Outcomes</u>		
LTIP: Pupils’ Outcomes – Cognitive level	LTIP-PUP-COG	5.3
LTIP: Pupils’ Outcomes – Affective level	LTIP-PUP-AFF	5.3
LTIP: Pupils’ Outcomes – Psychomotor level	LTIP-PUP-PSY	5.3
<u>Cascading</u>		
CAS: Other adults in the school	CAS-AIS	4
CAS: Other pupils in the school	CAS-PIS	4
CAS: Adults in other schools	CAS-AOS	4
CAS: Pupils in other schools	CAS-POS	4
<u>Longer Term Factors – Positive</u>		
LTF: Positive–Leadership – Alignment	LTF-POS-LEAD-ALI	6.1
LTF: Positive–Leadership-Creating Organisational Capacity	LTF- POS-LEAD-COC	6.1
LTF: Positive–Leadership-Empowering Teachers	LTF–POS-LEAD-EMP	6.1
LTF: Positive–Initiative – Structure	LTF-POS-IN-STR	6.1
LTF: Positive–Initiative – Success	LTF-POS-IN-SUC	6.1
LTF: Positive–Teachers – Alignment	LTF-POS-TEA-ALI	6.1
LTF: Positive–Teachers – Openness and Willingness	LTF-POS-TEA-OW	6.1
<u>Longer Term Factors – Negative</u>		
LTF: Negative – Practical	LTF-NEG-PRAC	6.2

## Appendix 6

## Definitions of Second Round Codes

### Driving Force

DF: Public/Official Driving Force: DF-PUB      Driving force during initial and ongoing implementation, as recounted by users, administrators or other respondents to be in line with public official motive – literacy initiative.

DF: Private Driving Force: PRIV-DF      Driving force during initial and ongoing implementation, as recounted by users, administrators or other respondents to reflect private motive, e.g., permanent status, collaborative practice.

### Previous Collaborative Practice

PCP: Previous Collaborative Practice: PCPA/N Affirmation (A) or negation (N) of previous participation in collaborative practice within the classroom setting.

PCP: Format of PCP: PCP-FORM      Reported formats of previous collaborative practice on the part of teachers and principals, e.g. team teaching for maths.

### Short Term Into Practice – Product

STIP: PROD      Products arising from participation in new practice, i.e. tangible outputs: an improved/new policy, a new strategy document, a directory or database of available PD opportunities, a newsletter, a workshop, establishment of meetings, production of action plans, etc.

### Short Term Into Practice – Process

STIP: PROC      Reported processes arising from participation in new practice, i.e. new or improved systems: teachers identifying their own PD; teachers reflecting on PD; teachers participating in discussions at a professional level re the practice; practices assigned to class levels.

### Short Term Into Practice – Staff Outcome

STIP: Personal	STIP-P/AFF/CLASS STIP-P/AFF/PUP	Indices of impact of new practice on teacher or principals at an affective or emotional level: (a) feelings and thinking related to classroom teaching and (b) beliefs and attitudes towards pupils' learning.
STIP: Professional	STIP-PR/EFF STIP-PR/AGE	Indices of effects of new practice on teacher or principal's (a) efficacy, i.e. sense of belief in their power to effect a change in pupils' learning, and (b) agency, i.e. teachers acting in intentional ways to shape their own responses to problematic situations.
STIP: Professional	STIP-PR/COM/OWN	Indices of impact of new practice on teacher or principal's commitment and ownership to the practice i.e., (a) teachers' undertaking and engagement with the practice, and (b) possession and responsibility towards practice.

### Short Term Into Practice Professional Practice and Learning

STIP-PPL-KN-PR/CON	Indices of impact of new practice on teachers' knowledge of the practice at (a) procedural level, i.e. practical level and/or (b) conceptual level, i.e. theoretical underpinnings.
STIP-PPL-USE-MECH	Indices of impact of new practice on teachers' use of new knowledge and skills at a mechanical level, i.e., teachers are concerned with the logistics and organisational issues and have put little thought into how they would continue to use the initiative if circumstances changed, or support was withdrawn.
STIP-PPL-USE-ROU	Indices of impact of new practice on teachers' use of new knowledge and skills at a routine level, i.e., teachers have established a way to use the initiative that works for them in their context but their understanding is related to what

they learned at training only. Teachers who asserted their continued use of the initiative despite continued support fall into the routine category. No evidence of applying principles in other teaching areas.

STIP-PPL-USE-REF/INT

Indices of impact of new practice on teachers' use of new knowledge and skills at a refined/integrated level, i.e. teachers (a) enhancing their use of the initiative alone or in collaboration with other teachers, (b) justifying subtle changes made, (c) taking an active role in securing continuation of the initiative despite circumstances, (d) using principles and procedures in other teaching areas.

STIP-PPL-PED

Indices of effects of new practice on teachers' knowledge of pedagogy, i.e., enabling the learning and intellectual growth of pupils through having (a) a shared vision of pedagogy through collaboration with other teachers or (b) pedagogic content knowledge (PCK), i.e., knowledge of ways of representing specific subject matter for pupils and an understanding of difficulties they may face because of their existing conceptions.

Short Term Into Practice Collective

STIP: COLL-INT

Indices of impact of new practice on teachers' interpersonal capacity, i.e., (a) more effective ways of working together, (b) more confidence in sharing good practice and managing and influencing colleagues, (c) greater willingness and ability to contribute productively to debate in staff meetings, (d) greater ability to question alternative viewpoints.

STIP: COLL-FORM

Reported forms of collaboration arising from initial or ongoing

implementation of the practice, e.g., team teaching, mentoring, coaching.

STIP: COLL-PLC

Indices of impact of new practice on the development of professional learning communities (PLCs), i.e., teachers having (a) shared values and vision, (b) collective responsibility for pupils' learning, (c) collaboration focused on learning and sharing of personal practice, (d) individual and collective professional learning, (e) reflective professional enquiry, (f) norms of openness, inclusive membership, mutual trust and respect, and (g) supportive conditions.

STIP: COLL-CUL

Indices of impact of new practice on the culture of the school, i.e., (a) the way things are done in the school or (b) teachers' beliefs, attitudes or perceptions.

STIP: Pupil s Outcomes

STIP: PUP-COG

Indices of effects on pupils at a cognitive level, i.e., their performance and attainment, e.g., performance and progress.

STIP: PUP-AFF

Indices of effects on pupils at an affective level, i.e., their attitudes and dispositions, e.g., pupil enjoyment, greater motivation, greater confidence.

STIP: PUP-PSY

Indices of effects on pupils at a psychomotor level, i.e., their skills and behaviours, e.g., pride in and organisation of work, increased participation and engagement, more effective ways of working.

Short Term Factors - Positive

STF – POS-LEAD-ALI

Reported alignment of principals and teachers values, i.e., principals and teachers valued the literacy aspect and therefore principals opted their schools into the initiative. Bottom-up approach to PD, i.e.,

	teachers requesting to participate in initiative.
STF – POS-LEAD-COC	Evidence of principals creating organisational capacity for change, e.g., having an awareness of the initiative at a conceptual level themselves, ensuring involvement was voluntary, providing top-down support through providing time for planning, reflection and consolidating learning, resources, timetabling, trust and autonomy.
STF – POS-LEAD-EMP	Evidence of principals empowering teachers to create collaborative learning cultures and professional learning communities (PLCs), e.g., encouraging and facilitating teachers to become leaders themselves through modelling practices for others, ensuring teachers were not under pressure to participate, facilitating cascading of practices, hiring of staff who value collaborative practices.
STF – POS-IN-STR	Reported positive aspects relating to the structure of the initiative, e.g., focused, clear framework, easy to follow.
STF – POS-IN-SUC	Reported success in relation to the use of the initiative, e.g., worthwhile, positive results for pupils, teachers believe in it, value it.
STF – POS-TEA-ALI	Reported alignment of initiative with teachers' needs in their context at the time.
STF – POS-TEA-OW	Evidence of teachers' openness and willingness to participate in the initiative, i.e., voluntary participation, and their subsequent ownership and commitment to it.
<u>Short Term Factors – Negative</u>	
STF – NEG – PRAC	Reported challenges from a practical point of view, e.g.,

absenteeism of pupils, lack of time, other demands on teachers, lack of structures for evaluation and reflection, not suitable for their children at this time.

Long Term Into Practice – Product  
LTIP: PROD

Products arising from participation in new practice, i.e., tangible outputs: an improved or new policy, a new strategy document, a directory or database of available PD opportunities, a newsletter, a workshop, establishment of meetings, production of action plans, etc.

Long Term Into Practice – Process  
LTIP: PROC

Reported processes arising from participation in new practice, i.e., new or improved systems: teachers identifying their own PD; teachers reflecting on PD; teachers participating in discussions at a professional level re the practice; practices assigned to class levels.

Long Term Into Practice – Staff Outcome  
LTIP: Personal LTIP-P/AFF/CLASS  
LTIP-P/AFF/PUP

Indices of impact of new practice on teacher or principals at an affective or emotional level: (a) feelings and thinking related to classroom teaching and (b) beliefs and attitudes towards pupils' learning.

LTIP: Professional LTIP-PR/EFF  
LTIP-PR/AGE

Indices of effects of new practice on teacher or principal's (a) efficacy, i.e., sense of belief in their power to effect a change in pupils' learning, and (b) agency, i.e., teachers acting in intentional ways to shape their own responses to problematic situations.

LTIP: Professional LTIP-PR/COM/OWN

Indices of impact of new practice on teacher or principal's commitment and ownership to the practice, i.e., (a) teachers' undertaking and engagement with the practice and

(b) possession and responsibility towards practice.

LTIP: Professional Practice and Learning

LTIP-PPL-KN-PR/CON	Indices of impact of new practice on teachers' knowledge of the practice at (a) procedural level, i.e., practical level and/or (b) conceptual level, i.e., theoretical underpinnings.
LTIP-PPL-USE-MECH	Indices of impact of new practice on teachers' use of new knowledge and skills at a mechanical level, i.e., teachers are concerned with the logistics and organisational issues and have put little thought into how they would continue to use the initiative if circumstances changed, or support was withdrawn.
LTIP-PPL-USE-ROU	Indices of impact of new practice on teachers' use of new knowledge and skills at a routine level, i.e., teachers have established a way to use the initiative that works for them in their context but their understanding is related to what they learned at training only. Teachers who asserted their continued use of the initiative despite continued support fall into the routine category. No evidence of applying principles in other teaching areas.
LTIP-PPL-USE-REF/INT	Indices of impact of new practice on teachers' use of new knowledge and skills at a refined level, i.e. teachers (a) enhancing their use of the initiative alone or in collaboration with other teachers (b) justifying subtle changes made, (c) taking an active role in securing continuation of the initiative despite circumstances, (d) using principles and procedures in other teaching areas.
LTIP-PPL-PED	Indices of effects of new practice on teachers' knowledge of pedagogy,

i.e., enabling the learning and intellectual growth of pupils through having (a) a shared vision of pedagogy through collaboration with other teachers or (b) pedagogic content knowledge (PCK), i.e., knowledge of ways of representing specific subject matter for pupils and an understanding of difficulties they may face because of their existing conceptions.

Long Term Into Practice Collective  
LTIP: COLL-INT

Indices of impact of new practice on teachers interpersonal capacity, i.e., (a) more effective ways of working together, (b) more confidence in sharing good practice and managing and influencing colleagues, (c) greater willingness and ability to contribute productively to debate in staff meetings, (d) greater ability to question alternative viewpoints.

LTIP: COLL –FORM

Reported forms of collaboration arising from initial or ongoing implementation of the practice e.g. team teaching, mentoring, coaching.

LTIP: COLL– PLC

Indices of impact of new practice on the development of professional learning communities (PLCs), i.e. teachers having (a) shared values and vision, (b) collective responsibility for pupils' learning, (c) collaboration focused on learning and sharing of personal practice, (d) individual and collective professional learning, (e) reflective professional enquiry, (f) norms of openness, inclusive membership, mutual trust and respect, and (g) supportive conditions.

LTIP: COLL –CUL

Indices of impact of new practice on the culture of the school, i.e., (a) the way things are done in the school or (b) teachers' beliefs, attitudes or perceptions.

### Long Term Into Practice Pupil s Outcomes

LTIP: PUP-COG	Indices of effects on pupils at a cognitive level, i.e., their performance and attainment, e.g., performance and progress.
LTIP: PUP-AFF	Indices of effects on pupils at an affective level, i.e., their attitudes and dispositions, e.g. pupil enjoyment, greater motivation, greater confidence.
LTIP: PUP-PSY	Indices of effects on pupils at a psychomotor level, i.e., their skills and behaviours, e.g. pride in and organisation of work, increased participation and engagement, more effective ways of working.
<u>Cascading</u> CAS: AIS	Reported cascading of practice to other adults in the school.
CAS: PIS	Reported cascading of practice to other pupils in the school.
CAS: AOS	Reported cascading of practice to adults in other schools.
CAS: POS	Reported cascading of practice to pupils in other schools.
<u>Long Term Factors - Positive</u> LTF – POS-LEAD-ALI	Reported alignment of principals' and teachers' values, i.e., principals and teachers valued the literacy aspect and therefore principals opted their schools into the initiative. Bottom-up approach to PD, i.e., teachers requesting to participate in initiative.
LTF – POS-LEAD-COC	Evidence of principals creating organisational capacity for change, e.g., having an awareness of the initiative at a conceptual level themselves, ensuring involvement was voluntary, providing top-down support through providing time for

planning, reflection and consolidating learning, resources, timetabling, trust and autonomy.

LTF – POS-LEAD-EMP

Evidence of principals empowering teachers to create collaborative learning cultures and professional learning communities (PLCs), e.g., encouraging and facilitating teachers to become leaders themselves through modelling practices for others, ensuring teachers were not under pressure to participate, facilitating cascading of practices, hiring of staff who value collaborative practices.

LTF – POS – IN-STR

Reported positive aspects relating to the structure of the initiative, e.g., focused, clear framework, easy to follow.

LTF – POS – IN – SUC

Reported success in relation to the use of the initiative, e.g., worthwhile, positive results for pupils, teachers believe in it, value it.

LTF – POS – TEA - ALI

Reported alignment of initiative with teachers' needs in their context at the time.

LTF – POS – TEA – OW

Evidence of teachers' openness and willingness to participate in the initiative, i.e., voluntary participation, and their subsequent ownership and commitment to it.

## Appendix 7 Illustration of Third Round of Codes

### Driving Force

DF: Public/Official Driving Force	DF-PUB	1.1, 1.2
DF: Private Driving Force	DF-PRIV	1.1, 1.2

### Previous Collaborative Practice – PCP

PCP: Affirmation / Negation	PCPA/N	1.3
PCP: Format of Previous Collaborative Practice	PCP-FORM	1.4

### Professional Development

TE: the Experience	TE	
L: Learning	L	

### Short Term Into Practice

STIP: Product	STIP-PROD	2
STIP: Process	STIP-PROC	2

### Short Term Into Practice – Staff Outcome

STIP: Personal – Affective-Class	STIP-P-AFF-CLASS	2.1
STIP: Personal – Affective-Pup	STIP-P-AFF-PUP	2.1
STIP: Personal – Affective-Coll	STIP-P-AFF-COLL	2.1
STIP: Personal – Affective-Efficacy	STIP-P-AFF-EFF	2.1
STIP: Professional – Agency	STIP-PR-AGE	2.2

### Short Term Into Practice – Staff Outcome – Professional Practice and Learning (PPL)

STIP: PPL-Quality of use and understanding-Mechanical level	STIP-PPL-QUAU-MECH	2.2
STIP: PPL-Quality of use and understanding-Routine level	STIP-PPL-QUAU-ROU	2.2
STIP: PPL-Quality of use and understanding-Refined/Int level	STIP-PPL-QUAU-REF	2.2

### Short Term Into Practice – Staff Outcome - Collective

STIP: Collective – Forms of Collaboration	STIP-COLL-FORM	2.4.2
STIP: Collective – PLCs	STIP-PLC	2.4.2
STIP: Collective – Culture	STIP-CUL	2.4.2

### Short Term Pupils Outcomes

STIP: Pupils' Outcomes – Cognitive level	STIP-PUP-COG	2.3
STIP: Pupils' Outcomes – Affective level	STIP-PUP-AFF	2.3
STIP: Pupils' Outcomes – Psychomotor level	STIP-PUP-PSY	2.3

### Short Term Positive Factors

STF: Positive-Leadership-Alignment	STF-POS-LEAD-ALI	3.1
STF: Positive-Leadership-Creating Organisational Capacity	STF-POS-LEAD-COC	3.1
STF: Positive-Leadership-Empowering Teachers	STF-POS-LEAD-EMP	3.1
STF: Positive-Initiative-Structure	STF-POS-IN-STR	3.1
STF: Positive-Initiative-Success	STF-POS-IN-SUC	3.1
STF: Positive-Initiative-Collaborative	STF-POS-IN-COLL	3.1
STF: Positive-Teachers-Alignment	STF-POS-TEA-ALI	3.1
STF: Positive-Teachers-Openness and Willingness	STF-POS-TEA-OW	3.1
STF: Positive-Miscellaneous	STF-POS-MISC	3.1

### Short Term Negative Factors

STF: Negative – Practical	STF-NEG-PRAC	3.2
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### Longer Term Into Practice

LTIP: Product	LTIP-PROD	5
LTIP: Process	LTIP-PROC	5

### Longer Term Into Practice – Staff Outcome

LTIP: Personal – Affective-Class	LTIP-P-AFF-CLASS	5.1
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LTIP: Personal – Affective-Pup	LTIP-P-AFF-PUP	5.1
LTIP: Personal – Affective-Coll	LTIP-P-AFF-COLL	5.1
LTIP: Personal – Affective-Efficacy	LTIP-P-AFF-EFF	5.1
LTIP: Professional – Agency	LTIP-PR-AGE	5.2
<u>Longer Term Professional Practice and Learning (PPL)</u>		
LTIP: PPL-Practice not continued	LTIP-PPL-PNC	4.1
LTIP: PPL-Quality of use and understanding-Mechanical level	LTIP-PPL-QUAU-MECH	4.2
LTIP: PPL-Quality of use and understanding-Routine level	LTIP-PPL-USE-ROU	4.2
LTIP: PPL-Quality of use and understanding-Refined/Int level	LTIP-PPL-USE-REF	4.2
<u>Longer Term Into Practice – Staff Outcome- Collective</u>		
LTIP: Collective – Forms of Collaboration	LTIP-COLL-FORM	5.4.2
LTIP: Collective – PLCs	LTIP-PLC	5.4.2
LTIP: Collective – Culture	LTIP-CUL	5.4.2
<u>Longer Term Pupils Outcomes</u>		
LTIP: Pupils' Outcomes – Cognitive level	LTIP-PUP-COG	5.3
LTIP: Pupils' Outcomes – Affective level	LTIP-PUP-AFF	5.3
LTIP: Pupils' Outcomes – Psychomotor level	LTIP-PUP-PSY	5.3
<u>Cascading</u>		
CAS: Other adults in the school	CAS-AIS	4
CAS: Other pupils in the school	CAS-PIS	4
<u>Longer Term Factors - Positive</u>		
LTF: Positive-Leadership-Alignment	LTF-POS-LEAD-ALI	6.1
LTF: Positive-Leadership-Creating Organisational Capacity	LTF- POS-LEAD-COC	6.1
LTF: Positive-Leadership-Empowering Teachers	LTF-POS-LEAD-EMP	6.1
LTF: Positive-Initiative-Structure	LTF- POS-IN-STR	6.1
LTF: Positive-Initiative-Success	LTF- POS-IN- SUC	6.1
LTF: Positive-Initiative-Collaborative	STF-POS-IN-COLL	6.1
LTF: Positive-Teachers-Alignment	LTF- POS-TEA-ALI	6.1
LTF: Positive-Teachers-Openness and Willingness	LTF-POS-TEA-OW	6.1
LTF: Positive-Miscellaneous	LTF-POS-MISC	6.1
<u>Longer Term Factors - Negative</u>		
LTF: Negative – Practical	LTF-NEG-PRAC	6.2

## **Appendix 8                      Definitions of Third Round Codes**

### Driving Force

DF: Public/Official Driving Force: DF-PUB Driving force during initial and ongoing implementation, as recounted by users, administrators or other respondents to be in line with public official motive – literacy initiative.

DF: Private Driving Force: DF-PRIV Driving force during initial and ongoing implementation, as recounted by users, administrators or other respondents to reflect private motive, e.g., permanent status, collaborative practice.

### Previous Collaborative Practice

PCP: Previous Collaborative Practice: PCPA/N Affirmation (A) or negation (N) of previous participation in collaborative practice within the classroom setting.

PCP: Format of PCP: PCP-FORM Reported formats of previous collaborative practice on the part of teachers and principals, e.g., team teaching for maths.

### Professional Development – The Experience

TE: The Experience Teachers' initial satisfaction with the PD experience for the initiative, e.g., did they like the training, was it useful, did the material make sense?

L: Learning Knowledge, skills attitudes acquired or enhanced at the training stage.

### Short Term Into Practice – Product

STIP: PROD Products arising from participation in new practice, i.e., tangible outputs: an improved or new policy, a new strategy document, a directory/database of available PD opportunities, a newsletter, a workshop, establishment of meetings, production of action plans, etc.

Short Term Into Practice – Process  
STIP: PROC

Reported processes arising from participation in new practice, i.e., new or improved systems, e.g., practices assigned to class levels; creation of a new approach to needs analysis; full involvement of staff in PD processes.

Short Term Into Practice – Staff Outcome

STIP: Personal STIP-P/AFF/CLASS  
STIP-P/AFF/PUP  
STIP-P/AFF/COLL

Indices of impact of new practice on teacher or principals at an affective or emotional level: (a) feelings and thinking related to classroom teaching and (b) beliefs and attitudes towards pupils' learning or (c) feelings and thinking related to collaborative practices.

STIP: Personal STIP-P/EFF

Indices of effects of new practice on teacher or principal's efficacy, i.e., sense of belief in their power to effect a change in pupils' learning / sense of how effectively they can teach.

STIP: Professional STIP-PR/AGE

Indices of effects of new practice on teacher or principal's agency, i.e., teachers acting in intentional ways to (a) enable change (b) shape their own responses to problematic situations thus showing commitment to and ownership of the practice.

Short Term Into Practice Staff Outcome - Professional Practice and Learning (PPL)

STIP-PPL-QUAU-MECH

Indices of impact of new practice on teachers' quality of use and understanding at a mechanical level, i.e., (a) teachers are concerned with the day-to-day logistics and organisational issues and have put little thought into how they would continue to use the initiative if circumstances changed, or support was withdrawn; (b) evidence of procedural knowledge, i.e., practical level as distinct from conceptual

knowledge, i.e., underlying principles / pedagogy.

STIP-PPL-QUAU-ROU

Indices of impact of new practice on teachers' quality of use and understanding at a routine level, i.e., (a) teachers have established a way to use the initiative that works for them in their context; (b) evidence of pedagogy / conceptual knowledge as explained at training, e.g. value of pupil peer learning, (c) teachers asserted their continued use of the initiative despite continued support, or (d) no evidence of applying principles in other teaching areas.

STIP-PPL-QUAU-REF/INT

Indices of impact of new practice on teachers' quality of use and understanding at a refined level, e.g. (a) teachers enhancing their use of the initiative alone or in collaboration with other teachers (b) reflective practice leading to justifying subtle changes made (c) having a shared vision of pedagogy through collaboration with other teachers, or (d) pedagogic content knowledge (PCK), i.e., knowledge of ways of representing specific subject matter for pupils and an understanding of difficulties they may face because of their existing conceptions, or (e) teachers using principles and procedures in other teaching areas.

Short Term Into Practice Collective  
STIP: COLL-FORM

Reported forms of collaboration arising from implementation of the practice, e.g., team teaching, mentoring, coaching in literacy, maths.

STIP: COLL- PLC

Indices of impact of new practice on the development of professional learning communities (PLCs), i.e., teachers having (a) shared values and vision, (b) collective

responsibility for pupils' learning, (c) collaboration focused on learning and sharing of personal practice, (d) individual and collective professional learning, (e) reflective professional enquiry, (f) norms of openness, inclusive membership, mutual trust and respect, and (g) supportive conditions.

STIP: COLL-CUL

Indices of impact of new practice on the culture of the school, i.e., (a) the way things are done in the school or (b) teachers' beliefs, attitudes or perceptions.

STIP: Pupils' Outcomes

STIP: PUP-COG

Indices of effects on pupils at a cognitive level, i.e., their performance and attainment.

STIP: PUP-AFF

Indices of effects on pupils at an affective level, i.e., their attitudes and dispositions, e.g., pupil enjoyment, greater motivation, sense of achievement, greater confidence.

STIP: PUP-PSY

Indices of effects on pupils at a psychomotor level, i.e., their skills and behaviours, e.g. pride in and organisation of work, increased participation and engagement, more effective ways of working, social skills.

Short-Term Factors – Positive

STF – POS-LEAD-ALI

Reported alignment of principals' and teachers' values, i.e., principals and teachers valued the literacy aspect and therefore principals opted their schools into the initiative. Bottom-up approach to PD i.e. teachers requesting to participate in initiative.

STF – POS-LEAD-COC

Evidence of principals creating organisational capacity for change, e.g. having an awareness of the initiative at a conceptual level themselves, ensuring involvement

	was voluntary, providing top-down support through providing time for planning, reflection and consolidating learning, resources, timetabling, trust and autonomy.
STF – POS-LEAD-EMP	Evidence of principals empowering teachers to create collaborative learning cultures and professional learning communities (PLCs), e.g., encouraging and facilitating teachers to become leaders themselves through modelling practices for others, ensuring teachers were not under pressure to participate, facilitating cascading of practices, hiring of staff who value collaborative practices.
STF – POS – IN – STR	Reported positive aspects relating to the structure of the initiative, e.g., focused, clear framework, easy to follow.
STF – POS – IN – SUC	Reported success in relation to the use of the initiative, e.g. worthwhile, positive results for pupils, teachers believe in it, value it.
STF – POS – IN – COLL	Reported positive aspects relating to collaborative nature of initiative for teachers involved, e.g., discuss and reflect together.
STF – POS – TEA – ALI	Reported alignment of initiative with teachers' needs in their context at the time.
STF – POS – TEA - OW	Evidence of teachers' openness and willingness to participate in the initiative and give it time, i.e., voluntary participation, enthusiasm and their subsequent ownership and commitment to it / sharing / talking about it.
STF – POS – PRAC / MISC	Reported significance of resources being provided for the initiative – practical / miscellaneous.

Short-Term Factors – Negative  
STF – NEG – PRAC

Reported challenges from a practical point of view, e.g., absenteeism of pupils / teachers, lack of time, other demands on teachers, lack of structures for evaluation and reflection, not suitable for their children at this time / no principal support.

Longer-Term Into Practice – Product  
LTIP: PROD

Products arising from participation in new practice, i.e., tangible outputs: an improved or new policy, a new strategy document, a directory/database of available PD opportunities, a newsletter, a workshop, establishment of meetings, production of action plans, etc.

Longer-Term Into Practice – Process  
LTIP: PROC

Reported processes arising from participation in new practice, i.e., new or improved systems: teachers identifying their own PD; teachers reflecting on PD; teachers participating in discussions at a professional level re the practice; practices assigned to class levels; how staff feel about and use opportunities from new products.

Longer-Term Into Practice – Staff Outcome

LTIP: Personal LTIP-P/AFF/CLASS  
LTIP-P/AFF/PUP  
LTIP-P/AFF/COLL

Indices of impact of new practice on teacher or principals at an affective or emotional level: (a) feelings and thinking related to classroom teaching and (b) beliefs and attitudes towards pupils' learning or (c) feelings and thinking related to collaborative practices.

LTIP: Personal LTIP-P/AFF/EFF

Indices of effects of new practice on teacher or principal's efficacy, i.e., sense of belief in their power to effect a change in pupils' learning / sense of how effectively they can teach.

LTIP: Professional STIP-PR/AGE	Indices of effects of new practice on teacher or principal's agency, i.e., teachers acting in intentional ways to (a) enable change (b) shape their own responses to problematic situations thus showing commitment to and ownership of the practice.
<u>Longer-Term Into Practice – Staff Outcome – Professional Practice and Learning (PPL)</u>	
LTIP: PPL-PNS	Teachers reporting discontinuation of the practice.
LTIP-PPL-QUAU-MECH	Indices of impact of new practice on teachers' quality of use and understanding at a mechanical level, i.e., (a) teachers are concerned with the day-to-day logistics and organisational issues and have put little thought into how they would continue to use the initiative if circumstances changed, or support was withdrawn, (b) evidence of procedural knowledge, i.e., practical level as distinct from conceptual knowledge, i.e., underlying principles / pedagogy.
LTIP-PPL-QUAU-ROU	Indices of impact of new practice on teachers' quality of use and understanding at a routine level, i.e., (a) teachers have established a way to use the initiative that works for them in their context (b) evidence of pedagogy / conceptual knowledge related to what they learned at training only, e.g., value of pupil peer learning, (c) teachers asserted their continued use of the initiative despite continued support, (d) no evidence of applying principles in other teaching areas.
LTIP-PPL-QUAU-REF/INT	Indices of impact of new practice on teachers' quality of use and understanding at a refined level, e.g., (a) teachers enhancing their use of the initiative alone or in collaboration with other teachers, (b) justifying subtle changes made,

(c) teachers taking an active role in securing continuation of the initiative despite circumstances, (d) having a shared vision of pedagogy through collaboration with other teachers, or (e) pedagogic content knowledge (PCK), i.e., knowledge of ways of representing specific subject matter for pupils and an understanding of difficulties they may face because of their existing conceptions, or (f) teachers using principles and procedures in other teaching areas.

### Longer-Term Into Practice Collective

LTIP: COLL-FORM

Reported forms of collaboration arising from initial or ongoing implementation of the practice, e.g., team teaching, mentoring, coaching.

LTIP: COLL-PLC

Indices of impact of new practice on the development of professional learning communities (PLCs), i.e., teachers having (a) shared values and vision of pedagogy, (b) collective responsibility for pupils' learning, (c) collaboration focused on learning and sharing of personal practice, (d) individual and collective professional learning, (e) reflective professional enquiry, (f) norms of openness, inclusive membership, mutual trust and respect, and (g) supportive conditions.

LTIP: COLL-CUL

Indices of impact of new practice on the culture of the school, i.e., (a) the way things are done in the school, or (b) teachers' beliefs, attitudes or perceptions.

### Longer-Term Into Practice Pupils' Outcomes

LTIP: PUP-COG

Indices of effects on pupils at a cognitive level, i.e., their performance and attainment.

LTIP: PUP-AFF

Indices of effects on pupils at an affective level, i.e., their attitudes and dispositions, e.g., pupil enjoyment, greater motivation, greater confidence.

LTIP: PUP-PSY

Indices of effects on pupils at a psychomotor level, i.e., their skills and behaviours, e.g. pride in and organisation of work, increased participation and engagement, more effective ways of working.

Cascading

CAS: AIS

Reported cascading of practice to other adults in the school.

CAS: PIS

Reported cascading of practice to other pupils in the school.

Longer Term Factors - Positive

LTF – POS-LEAD-ALI

Reported alignment of principals' and teachers' values, i.e., principals and teachers valued the literacy aspect and therefore principals opted their schools into the initiative. Bottom-up approach to PD, i.e., teachers requesting to participate in initiative.

LTF – POS-LEAD-COC

Evidence of principals creating organisational capacity for change, e.g., having an awareness of the initiative at a conceptual level themselves, ensuring involvement was voluntary, providing top-down support through providing time for planning, reflection and consolidating learning, resources, timetabling, trust and autonomy.

LTF – POS-LEAD-EMP

Evidence of principals empowering teachers to create collaborative learning cultures and professional learning communities (PLCs), e.g., encouraging and facilitating teachers to become leaders themselves through modelling practices for others, ensuring teachers were not under pressure to participate, facilitating cascading of practices, hiring of staff who value collaborative practices.

LTF – POS – IN – STR

Reported positive aspects relating to the structure of the initiative, e.g., focused, clear framework, easy to follow.

LTF – POS – IN – SUC	Reported success in relation to the use of the initiative, e.g., worthwhile, positive results for pupils, teachers believe in it, value it.
LTF – POS – IN – COLL	Reported positive aspects relating to collaborative nature of initiative for teachers involved, e.g., discuss and reflect together.
LTF – POS – TEA – ALI	Reported alignment of initiative with teachers' needs in their context at the time – value it.
LTF – POS – TEA – OW	Evidence of teachers' openness and willingness to participate in the initiative, i.e., voluntary participation, and their subsequent ownership and commitment to it.
LTF – POS – PRAC / MISC	Reported significance of resources being provided for the initiative – practical / miscellaneous.
<u>Longer Term Factors – Negative</u>	
LTF – NEG – PRAC	Reported challenges from a practical point of view, e.g., other demands on teachers, lack of structures for evaluation and reflection, not suitable for their children at this time / no principal support.

## Appendix 9

## Levels of impact explained

### The Experience

Teachers' initial satisfaction with the PD experience for the initiative, e.g., did they like the training, was it useful, did the material make sense?

### Learning

Knowledge, skills attitudes acquired or enhanced at the training stage.

### Systemic Factors

**Support: Leadership:** Reported alignment of principals' and teachers' values, i.e., principals and teachers valued the literacy aspect and therefore principals opted their schools into the initiative. Bottom-up approach to PD, i.e., teachers requesting to participate in initiative.

Evidence of principals creating organisational capacity for change, e.g., having an awareness of the initiative at a conceptual level themselves, ensuring involvement was voluntary, providing top-down support through providing time for planning, reflection and consolidating learning, resources, timetabling, trust and autonomy.

Evidence of principals empowering teachers to create collaborative learning cultures and professional learning communities (PLCs), e.g., encouraging and facilitating teachers to become leaders themselves through modelling practices for others, ensuring teachers were not under pressure to participate, facilitating diffusion of practices, hiring of staff who value collaborative practices.

**Initiative:** Reported positive aspects relating to the (a) *structure* of the initiative, e.g., focused, clear framework, easy to follow, limited timeframe, collaborative team-teaching aspect and (b) reported success in relation to the use of the initiative, e.g., worthwhile, positive results for pupils, teachers believe in it, value it.

**Teachers:** Evidence of (a) teachers' *motivation and willingness to engage* in the initiative, i.e., bottom-up approach or voluntary participation, and their subsequent ownership and commitment to it, (b) reported alignment of initiative with teachers' needs in their context at the time, (c) facilitating deep learning of the activity, and (d) teacher agency.

### Into Practice

#### **Process**

Reported processes arising from participation in new practice, i.e., new or improved systems, e.g., practices assigned to class levels; creation of a new approach to

needs analysis; full involvement of staff in PD processes; putting practice on the staff meeting agenda; how staff feel about and use opportunities from new products.

## **Product**

Products arising from participation in new practice, i.e., tangible outputs: an improved or new policy, a new strategy document, a directory/database of available PD opportunities, a newsletter, a workshop, establishment of meetings, production of action plans.

## **Staff Outcome**

### *Personal*

*Affective:* Indices of effects of new practice on teacher or principal at an affective level: (a) efficacy, i.e., sense of belief in their power to effect a change in pupils' learning / sense of how effectively they can teach, (b) beliefs and attitudes towards classroom teaching and pupils' learning.

### *Professional*

*Quality of use and understanding of new and improved knowledge and skills:* Indices of impact of new practice on teachers' quality of use and understanding:

Nonuse, i.e., (a) absence of innovation-related behaviour, no knowledge or involvement and doing nothing toward becoming involved.

Orientation, i.e., takes action to learn more detailed information about the innovation, e.g., (a) looks for information about the innovation, (b) explores the possibilities for use of the innovation, (c) no commitment to use the innovation.

Preparation, i.e., makes a decision to use the innovation, (a) preparation and planning for the first use of the innovation.

Technical, i.e., (a) teachers are concerned with the day-to-day logistics and organisational issues, (b) evidence of procedural knowledge as distinct from conceptual knowledge, i.e., underlying principles / pedagogy.

Accepted, i.e., (a) teachers have established a way to use the initiative that works for them in their context, (b) evidence of pedagogy / conceptual knowledge as explained at training, e.g., value of pupil peer learning, (c) teachers assert their continued use of the initiative despite continued support, and (d) no evidence of applying principles in other teaching areas.

Critical, i.e.(a) teachers enhancing their use of the initiative in collaboration with other teachers, (b) reflective practice leading to justifying subtle changes made, (c) pedagogic content knowledge (PCK), i.e., knowledge of ways of representing specific subject matter for pupils and an understanding of difficulties they may face because of their existing conceptions, (d) teachers using principles and procedures in other teaching areas, (e) teachers acting in intentional ways to shape their own responses to problematic situations thus showing commitment to and ownership of the practice.

Discontinued, i.e., teachers have discontinued the practice due to an absence of some of the systemic factors (outlined above).

### *Cultural*

Reported *forms of collaboration* arising from implementation of the practice, e.g., team teaching, mentoring, coaching in literacy, maths.

Indices of impact of new practice on the development of *professional learning communities* (PLCs), i.e., teachers having (a) shared values and vision of pedagogy, (b) collective responsibility for pupils' learning, (c) collaboration focused on learning and sharing of personal practice, (d) individual and collective professional learning, (e) reflective professional enquiry, (f) norms of openness, inclusive membership, mutual trust and respect, and (g) supportive conditions.

### **Pupils' Outcomes**

Indices of effects on pupils at (a) a cognitive level, i.e., their performance and attainment, (b) an affective level, i.e., their attitudes and dispositions, e.g. pupil enjoyment, greater motivation, sense of achievement, greater confidence, and (c) a psychomotor level, i.e., their skills and behaviours, e.g., pride in and organisation of work, increased participation and engagement, more effective ways of working, social skills.

### **Diffusion**

Reported diffusion of practice to other adults and or pupils.