From Initiation to Implementation:

A Case Study of the Professional Development of Teachers in Ireland

Sharon Coffey

Doctor of Education (Ed. D)

Maynooth University

Table of Contents

List of tables

List of figures

List of appendices

Declaration

I have read and understood the Departmental policy on plagiarism.

I declare that this thesis is my own work and has not been submitted in any form for another degree or another institution of tertiary education.

Information derived from the published or unpublished work of others has been acknowledged in the text, and a list of references is given.

Signature: Sharon Coffey

Date: 12/12/21

Acknowledgements

"One can pay back the loan of gold, but one dies forever in debt to those who gave their time"

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Abstract

Teaching is viewed as a complex activity and teachers are required to make a commitment to improving their instructional practices by engaging in professional development. Researchers acknowledge teacher professional development is not confined to the workshop but involves the transfer of learning from the workshop to the classroom. The purpose of this study is to explore the experiences and perspectives of fifteen teachers from five schools engaged in a professional development programme. Professional development is contextually bound in school culture and context and has a direct link for teachers' initiation and implementation of new innovations. This frames the broader context of this study.

A multi-site case study used five phases of data collection and analyses, consisting of the administration of a quantitative questionnaire followed by in-depth, qualitative, semi-structured interviews to gain a better understanding of this complex area of educational change. The findings of this study outline the personal experiences of teachers changing their practices. They include the concerns and emotions teachers experience during educational change, the role of relationships in peer teams and the influence of teacher agency. Two areas of school culture emerged from this study: (a) the role of the school leader and (b) the collaborative cultures in a school.

Chapter 1. Introduction

Extensive research supports the belief that professional development of teachers is a key strategy to improve both teacher quality and student learning (Day, 2002; Garet et al., 2001; Guskey, 2000). Teachers' professional development is viewed as a positive change in teachers' competence (Borg, 2018) and has long been seen as a vehicle for educational change (Fullan, 2001; Guskey, 2002).

Efforts to change the instructional practices of teachers have proven to be the most difficult type of reform, requires a substantial investment of resources and often results in minor modifications (Tocci et al., 2019; Tyach et al., 1997; Watters et al., 2018). Governments worldwide invest vast sums of money into teacher professional development with the intention of improving their skills, knowledge and practices (Birman et al., 2000; Bowe & Gore, 2017). Unfortunately, there is a lack of empirical evidence that focuses on teachers' participation in professional development and the impact it has on teacher learning and practice (Garrett et al., 2019; Gore et al., 2017). Therefore, researchers have called for research focusing on implementing effective professional development programmes for practising teachers (Boudah et al., 2001; Guskey, 2000, 2009; Sugrue, 2011).

This chapter sets the context for addressing those issues by beginning with a discussion of the current policy context of professional development in Ireland followed by the rationale for the study. The research aims and questions that form the focus of this study

are then discussed. Subsequently, the chapter explores the research context with the socio-political debate for educational research change. Finally, the chapter concludes with an overview of how this study is structured and presented.

1.1 The current policy context of professional learning in Ireland

The purpose of this section is to set out the current policy context of professional learning in Ireland. An accountability agenda has influenced policy to formalise teacher professional learning in recent years. The Teaching Council Act 2001 places the statutory responsibility of the education, training and qualifications required for a person to be registered as a teacher on the Council. The Council sets out policies on professional learning for initial teacher training, newly qualified teachers and in-service teachers. In this section I will discuss three of the Teaching Council's documents: (1) the Code of Professional Conduct for Teachers (Teaching Council, 2016a); (2) the Policy on the Continuum of Teacher Education (Teaching Council, 2011) and (3) Cosán Framework for Teachers' Learning (Teaching Council, 2016b).

The Code of Professional Conduct for Teachers (Teaching Council, 2016) has a statutory basis under the Teaching Council Act 2001. The Code sets out several standards that apply to all registered teachers. Two of those standards are important for this study as they place an emphasis on teachers engaging in professional development and collaboration. The fifth standard 'Professional Development' places the responsibility for teachers to "take personal responsibility for sustaining and improving the quality of their professional practice" (p. 8). This strand places an emphasis on teachers to "avail of opportunities for career-long professional development" (p. 8). This document also focuses on teachers working collaboratively under a sixth strand

"Professional Collegiality and Collaboration". This requires teachers to "work with teaching colleagues and student teachers in the interests of sharing, developing and supporting good practice and maintaining the highest quality of educational experiences for pupils/students" (p. 9). This document explains improving teacher practice and teachers working collaboratively together are linked with engagement in professional development.

The Policy on the Continuum of Teacher Education (Teaching Council, 2011) sets out the Council's policy on the continuum of teacher education including initial teacher education, induction, early and continuing professional development. The significance of this policy is important to this study as it outlines the principles of professional development and the design of professional development for teachers. The principles relevant to this study are listed below.

1. School Leadership and the Role of the Principal: effective school leadership in a collaborative school environment is crucial for the professional development of teachers. The policy recognises the role of the principal as an instructional leader and this should be reflected in the school's provision of professional development.

2. Teacher Formation: effective professional development should place an emphasis on teachers evaluating their beliefs, practices along with reflecting upon new knowledge and skills. Teachers should engage in professional development that supports an improvement in their practices.

3. Partnership and Collaboration: the policy recognises that professional development fosters a collegial culture of sharing good practices among teachers and is required in schools.

4. Design of CPD: the policy acknowledges a valued model of professional development as that in which teachers engage with in teams, either by attending PD opportunities together or through school-based enquiry activities..

At the time, this policy document acknowledged a need for a framework on professional development for teachers. This framework, Cosán Framework for Teachers' Learning (Teaching Council, 2016b) "sets out the Teaching Council's position with regard to the development of a coherent national framework for teachers' ongoing professional learning" (p. 5). The framework acknowledges the Code of Professional Conduct for Teachers (Teaching Council, 2016a) that teachers "take personal responsibility for sustaining and improving the quality of their professional practice" (p. 8). This is evident in the principles of the framework and is significant for this study as it outlines conditions for teachers to engage in professional development that will motivate them to take ownership of their professional learning. It reveals effective learning for teachers is an active process rather than a passive process and professional learning cannot occur if teachers are passive recipients. At the same time, Cosán requires teachers to engage in professional learning to ensure renewal of Teaching Council registration (Teaching Council, 2016b).

The three policy documents discussed above outline the requirements for teachers to engage in professional development, the principles of professional learning and the design of professional development programmes but does not indicate the types of programmes that should be provided. A later section of the Literature Review will outline effective models of professional development and effective characteristics of professional development programmes. The three documents place an emphasis on the

importance of teacher professional development on the individual teacher, the school and the system. And tangentially, Neil and Morgan (2003) argue that professional development supports the needs of the individual teacher, whereas schools view it in terms of policy and improvements and the system views it as a regulation of teachers.

1.2 Rationale

A large volume of international and national policies exists relating to changes in society, the diversity of classrooms and legislative changes (OECD, 2015; OECD, 2018; Teaching Council 2010). The accelerating pace of social change places an emphasis on the evolution of national educational reforms (OECD, 2020). Teachers need to be prepared to respond to changing learning objectives and student needs, in particular the transmission of knowledge and the development of skills, including the facilitation of students' engagements in learning and the use of innovative instructional tools and materials (OECD, 2020).

In recent years, the Irish education system has experienced an unprecedented number of reforms. Between 2008 and 2014, Ireland introduced 23 educational reforms. Many of those reforms were designed around student learning, improving the classroom practices of teachers and an emphasis on providing effective professional development for teachers (OECD, 2015). One such reform relates to school self-evaluation. The Department of Education and Skills (2016) published a framework entitled *Looking at Our School, 2016: A Quality Framework for Post Primary Schools* (DES, 2016). The document is designed for teachers and school leaders to implement the most effective teaching and learning practices to enhance student learning. The framework recognises the importance of quality teaching and places an emphasis on teachers using highly

effective instructional practices to support student achievement. The framework views professional development as central to a teacher's work and situates collaboration at the heart of teacher practice. With this in mind, the Department of Education's investment in professional development for teachers has focused primarily on supporting teachers understanding of and capacity to implement revised curricula at post-primary level (Hislop, 2018) with very little investment to support teachers with implementing new or revised instructional practices. To understand teacher learning we must explore it within multiple contexts, taking into account the individual teacher and the social system in which they operate within (Borko, 2004).

The four national policy frameworks discussed above place an emphasis on schools and teachers to engage in professional development and for teachers to refine and improve their instructional practice. However, there is a lack of empirical research in Ireland associated with the requirements of the four frameworks at school and teacher level. First, there is no Irish based empirical research on teachers perspectives of school based and participant focused professional development programmes Second, there is a research gap on the experiences of teachers returning to school after a professional development programme and their insights into implementing new or revised instructional practices (Borko, 2004; Calvert, 2016; Ingvarson et al., 2005; OECD, 2018). Understanding teachers' experiences of professional development along with a change in practice in the classroom and supports available at school level is important for professional development effectiveness (Berry, 2014; Calvert, 2016).

To address the research gap, this study explores the perspectives of fifteen teachers from five schools engaged in a professional development programme that aligns with

current best practice. School context and culture plays a significant role in supporting teachers to implement new and revised instructional practices from a professional development programme. This frames the broader context of the study.

1.3 Research aims and questions

In seeking to address the research gap of teacher experiences engaged in a professional development programme in Ireland, a multi-site case study research design consisting of the administration of a quantitative questionnaire followed by in-depth qualitative semi-structured interviews was used to better understand this complex area of educational change. Specifically, this research focused on two aims:

1. To understand the experiences of teachers changing their instructional practices from a professional development programme.
2. To understand the influence of school context on teachers implementing instructional practices.

The following research question and two sub-questions were asked to collect the relevant data.

What are the factors that enable or hinder teachers changing instructional practise from a professional development programme?

Sub questions related to the main research question include:

1. What are the experiences of teachers implementing new instructional practices?
2. How does school context support teachers' change their instructional practices?

1.4 Research context

Borko (2004) has identified four key elements of a professional development system that need to be understood to impact teacher learning: (1) the professional development programme; (2) the teacher engaging in the programme; (3) the facilitator guiding the teacher will new knowledge and practice, and (4) the context in which the professional learning occurs, the school. Three of those elements represent contexts in this research. I will explain how those three elements link to this study.

The continuum of teacher education in Ireland encompasses initial teacher education, induction, early and continuing professional development (Teaching Council, 2011). Since 2011, both the primary and post-primary initial teacher education (ITE) sectors have extended the duration of their ITE programmes and their programme content has been reconceptualised to ensure pre-service teachers acquire critical knowledge and skills on classroom practices. Following completion of an ITE programme, newly qualified teachers are required to complete an integrated professional induction framework called *Droichead* (Coolahan, 2017; Hislop, 2018, Teaching Council, 2011). Following on from a period of induction, national policy agendas such as the Cosán Framework for Teachers' Learning (Teaching Council, 2016b) and Looking at our School 2016 (DES, 2016) place a requirement upon in-service teachers to engage in professional development to improve the quality of their professional practice. Both frameworks were discussed earlier in this chapter.

The quality of teachers' professional development and the degree to which it addresses the needs of individual schools and the Irish school system more generally will be a challenge in the years ahead (Hislop, 2018). The provision for professional

development in Ireland is largely funded by the Department of Education and traditionally focuses on disseminating national policies rather than developing the professional capacity of teachers (McMillan et al., 2014; Sugrue 2002). The Teacher Education Section under the Department of Education in Ireland provides professional development for teachers and schools through various support services such as the Professional Development Service for Teachers (PDST), Junior Cycle for Teachers (JCT), National Induction Programme for Teachers (NIPT) and the Centre of School Leadership (CSL).

There is relatively little attention paid to the degree to which existing professional development courses match the needs of individual teachers and schools. The provision of professional development opportunities has been heavily weighted toward the provision of national support services to support curricular change. However, schools and teachers vary in their professional development needs. Many teachers, on their own initiative, undertake a wide range of courses (Hislop, 2018). There is a need to ensure the investment in professional development address the needs of individual teachers and schools.

As discussed above, schools and teachers vary with their professional development needs. Schools benefit from school improvement when school principals and teachers have the opportunity to identify and pursue their own specific professional development needs. To ensure this, a range of sources and modes for professional development is required. Over the last fifteen years, representative bodies in the system have been providing professional development for teachers outside the policy area. Here are three examples. First, the National Association of Principals and Deputy Principals (NAPD)

provides teaching and learning workshops with international external facilitators such as the Magenta Principles (Hughes, 2014) and Building Learning Power (Claxton 2002). Second, Maynooth University facilitates a programme called TL21. It is a two-year professional development programme aimed at promoting innovative practice and collaboration among teachers. And third, the Education and Training Board Ireland (ETBI) introduced the Instructional Leadership Programme (Bennett, 2010) that is designed to refine and extend the instructional practices of teachers in post-primary schools. The ILP, is the vehicle of this study.

1.4.1 The professional development programme- the Instructional Leadership Programme

The Instructional Leadership Programme (ILP), a professional development programme designed by Professor Barrie Bennett (Bennett, 2002; Bennett, 2010; Fullan, 2002) is used to contextualise the experiences of fifteen teachers engaged in this study. It is a two-year professional development programme designed to extend and refine the instructional practices of post-primary teachers in Ireland. The programme is now in its thirteenth year of implementation and involves teachers and school leaders from approximately fifty percent of post-primary schools in Ireland.

The programme was designed to incorporate "the artful and thoughtful integration of multiple approaches to teaching and learning" (Bennett and Rolheiser, 2008 p., 45). The programme is based on the idea of instructional intelligence (understood as the intersection of knowledge/research related to curriculum, assessment, instruction, how students learn and the process of educational change). In the next chapter I will clarify instruction and outline how the ILP incorporates both the art and science of teaching.

The ILP is unique in the context of professional development in Ireland for three reasons. First, the ILP is organised and run by ETBI, a representative body established under the Department of Education and Skills (DES). That said, it receives no funding or support from the DES to run the programme. Each school pays for three teachers to attend four sessions over a two-year period. Second, teachers and schools attend the ILP on a voluntary capacity. The design of the programme is intended to refine and extend the instructional practices of teachers. The programme provides schools with the opportunity to address specific school improvement requirements around teacher practice outside of the policy agenda. Third, very few professional development programmes in Ireland provide an opportunity for teachers to attend in teams together over an extended period of time. Traditionally, professional development programmes have taken the form of single events of learning. Many empirical studies have expressed a concern regarding the effectiveness of those forms of professional development initiatives and evaluations find they fail to produce improvements in teachers' practice and student achievement (Glazerman et al., 2010; Harris et al., 2011; Garet et al., 2016). The ILP runs for two years, four sessions and each session lasting for two and a half days. Teachers are required to attend the ILP in teams of three. When teachers engage in high-quality collaboration that they perceive as extensive and helpful, there is both an individual and collective benefit for all members of the team (Ronfeldt et al., 2015).

1.4.2 Teachers engaging in the programme

Borko (2004) argues evidence is required "that a professional development programme can have a positive impact on teacher learning" (p. 4) and supports teachers "to increase their knowledge and change their instructional practices" (p. 5). Extensive research on

an individual teacher as a unit of analysis reveals that teacher learning is a slow and uncertain process. Teacher change, through their involvement in professional development, is not linear, and several factors impact upon them changing (Borko, 2004; Franke et al., 2001; Hall & Hord, 2015; Rogers, 2003). A study by EFA Global Monitoring Report team (2015) reported teacher quality is the single most important school-related factor in student achievement. Teachers who have good subject knowledge and classroom practice make a difference in student achievement.

That said, Wiliam (2011) reports that teaching is a highly complex activity with teachers needing to make a career-long commitment to continuous improvement of their instructional practice. Marzano and Waters (2009) study reported one of the "non-negotiable" goals for every educational system should be for every teacher to improve every year. In turn, these systems should develop the competence of their teachers through professional development. Any evaluation of teacher professional development needs to focus upon measuring changes in instructional practices (Bubb & Earley, 2008; Guskey, 2005).

As mentioned earlier, this multi-site case study explores the experiences of fifteen post-primary teachers from five schools taking part in a professional development initiative, to identify how it impacted upon their classroom practice and to see if implementation occurred over time. The implementation of an innovation is a complex, inherently social, and a developmental process: individuals construct perceptions that influence their decisions (Hall et al., 2015; Fullan, 2016; Rogers, 2006). The flexible nature of case study research facilitated data to be collected from all fifteen teachers on their experiences of implementation in their school.

1.4.3 The schools

Teacher professional development is not confined to the workshop but also involves teachers returning to the classroom to implement their new instructional practices[1] (Joyce & Showers, 1982). A Darling-Hammond and Richardson (2009) study found that professional development which is (a) ongoing, (b) centres on student learning, (c) linked to school priorities, and (d) focused on fostering teacher relationships positively impacts on student learning. Those four elements of professional development tie into school culture and context.

Linking to Darling-Hammond and Richardson (2009) study, professional development is contextually bound in school culture and context and has a direct link for teachers' initiation and implementation of new innovations (Fullan, 2015; Rahman, 2017). Teachers are more likely to implement new innovations when they work in a school environment that values collaboration (Clarke and Hollingsworth, 2002; Jurasaite-Harbison and Rex, 2010; Leithwood et al., 1998, Warren Little, 1982; Park et al., 2007), have school leaders with an understanding of the professional development initiative (Leithwood et al., 2009; Newman et al., 2000) and opportunities for teachers to reflect upon their learning and receive feedback from other (Imants, 2002).

Two areas of school culture emerged from this study: (a) the role of the school leader and (b) the collaborative cultures in a school. Collaboration supports improvements in

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[1] Note, that by instruction and instructional practices I imply those instructional methods teachers select and apply in the design of a learning experience. Instruction in this study refers to methods that are more teacher directed as well as those that are more student centred. I will discuss later in this study how instruction is classified.

teacher practice and student achievement. When teachers engage in high-quality collaboration that they perceive as extensive and helpful, there is both an individual and collective benefit (Ronfeldt et al., 2015).

Collaboration and greater co-operation between school staff is being encouraged by the Department of Education in Ireland (Hislop, 2015). Many schools have yet to embrace a culture of collaborative learning and to build structures necessary to sustain it (Kennedy, 2016; Sims et al., 2020; OECD, 2020). In many schools, teachers are attending professional development programmes alone, return to the classroom with very little opportunity for collaboration (Kennedy' 2016; Joyce and Showers, 2015). Creating a school culture that stimulates peer observation, peer coaching and collaborative cultures such as Teaching and Learning Clubs requires school leaders with the knowledge of the innovation to support implementation (Leithwood et al., 2009). Meaningful collaboration requires support at school level from school leaders and they have a role in shaping teachers practices through professional development (Hallinger, 2003; Leithwood, et al., 1998).

The five schools of the participating teachers each have different contexts and cultures that 'influenced' the experiences of those fifteen teachers. This study will explore the experiences of the teachers in their schools and how each school culture and context supported or hindered implementation of new instructional practices from a professional development programme.

Keeping in mind the research context discussed above, four change principles have emerged to support this study. First, change takes time (Rogers, 2003). Change is not a

one-time event but may take three to five years for an individual to implement change. For change to be successful, organisations need to focus on the learning and implementation needs of the individuals (Hall & Hord, 2015). Second, change is highly personal; organisations adopt change, but individuals implement change. Until everyone has successfully implemented and adopted the innovation it is impossible for change to be successful (Hall & Hord, 2006; Rogers, 2003). Third, change is a process and not an event (Fullan, 2016). Change is a process through which individuals and organisations gradually learn, understand and become both skilled and competent in the innovation (Hall & Hord, 2015). Fourth, leadership in a school plays a crucial role in supporting and implementing change. School leaders who understand the innovation process and who can act as part of a team will support individuals in successfully implementing change (Hall & Hord, 2015).

1.5 Significance of study

This study provides a unique perspective of teachers implementing instructional practices while engaging in a professional development. Exploring teachers' implementation of new or revised instructional practices is significant for three reasons. First, the study identified the experiences teachers have of implementing instructional practices in their post-primary classroom while engaging in a professional development programme. This provides insights into a largely undocumented area of research. Little is known in the area of teachers' experience of educational change and teacher professional development. Findings from this study have the potential to (a) contribute to research on teachers' response to change; and (b) address a knowledge gap on teachers engaging in professional development. This information can contribute to the

future design of professional development programmes informed on research principles.

Second, the professional development programme is a example of sustained change involving groups of teachers and school leaders. Given little research exists in the Irish education system on the principles of professional development programmes, this study provides an opportunity to explore educational change and teachers' experiences. And, although one case study does not provide for a broader generalisation of the results to the wider education population it will provide a snapshot of the experiences of fifteen teachers and will contribute to the research knowledge based on educational change arising from engagement with a professional development programme. In addition, factors are explored in the research seeking to identify the uptake of change initiatives. This will contribute to the effect of professional development in educational reform.

Third, this study outlines how school context can support or hinder teachers from implementing instructional practices from a professional development programme. As I outlined above, this research is a case study, and the findings have limitations but will provide an insight of fifteen teachers in five schools. The findings can provide policy makers and school leaders with information on: (a) the role the school leader has on supporting implementation; (b) how collaborative cultures in schools can support implementation and (c) the role teacher agency plays in supporting implementation.

1.6 Teacher professional learning: Political context

Evidence reveals a strong link between teachers' professional learning and the relationship to educational change (Guskey, 2009; Hanushek, 2005; Kennedy, 2005).

Teachers have a central role in successful education change and they are often referred to as the agents or drivers of change (Fullan, 2015; Schoenfeld, 2014). The opposite of this is also evident in the literature, with teachers resisting and opposing change (Guskey, 1986, 2009). Educational change is often seen as a change in teachers' practice, beliefs, knowledge, understanding, skills and attitudes (Evans, 2010; Guskey, 2009). King (2016) reports "understanding the knowledge practice gap between professional learning and changes in practices" (p. 575) will support implementation and sustainability of change.

Researching change over time is going to involve two key concepts: politics and personalities. To research change over time will need elements of stability related to those involved in the project but more importantly related to those who financially and philosophically support the change. I will provide three brief examples of successful attempts at change and why two eventually failed having been initially successful and why one has embedded itself into the culture of change in the system.

Case 1. In Canada, Michael Fullan created the Learning Consortium, a partnership between the University of Toronto and four large school districts in the city of Toronto. One district in the project, in the tenth year of the project went from being identified by the Ministry of Education as the worst school district (of 197) in Ontario to winning a €200,000 prize as the best school district in the world by the Bertelsmann Foundation situated in Europe. In the sixteenth year, the CEO of the district and the key staff development office retired. Their failure to plan for succession in leadership led to the demise of the programme and the district shifted back towards mediocrity. Their attempts to revive the programme failed, largely due to the lack of change wisdom at

the leadership level of the system. Key to their initial success was constant leadership and a deep respect for change, largely the result of their attending to the research on educational change their connection to Michael Fullan's work.

Case 2. Tasmania (one of the states in Australia) was seven years into a ministry change project. The work in Tasmania was initially the result of Michael Fullan working briefly with the Ministry of Education in Tasmania and somewhat paralleled the work in the Durham District. A state election resulted in a change of government and the project disappeared. Key players in the ministry were gone and the new government was not interested in maintaining the effort.

Case 3. In Western Australia, the project was started by a secondary-school principal, who attended the work in Tasmania with a team of teachers from his school. He approached the leadership of the State School Teachers' Union of Western Australia the union president realised the flaw in Tasmania's approach so decided to involve as many stakeholders as possible. The Ministry of Education (a Labour government) was very interested and worked with the union in the design and implementation of the project. The Labour government won three four-year terms; however, halfway through the third term they knew they were going to lose. The concern was losing the project (like what happened in Tasmania). The SSTWA let the Ministry know that nothing was going to affect the project because it was written into the collective agreement and into teacher salaries (wide-spread and embedded). The president of the SSTWA is still the president and the project is now in its 21st year (Ó Murchú et al., 2013).

What emerges from those three case studies is the downside of systems that by design result in leadership changes; political parties come, and new people are hired and the experienced retire and with that come the inexorable and relentless shifts in the focus of change. One key attribute of those case studies related to the ILP in Ireland is the extent it is dealing with the dynamics of politics and personalities. The ILP is not funded by the Department of Education and Skills, it is organised and run by the Education and Training Board Ireland (ETBI), a representative body for Irelands' sixteen Education and Training Boards (ETBs). This would be a perspective that runs against current change wisdom related to the initiation, implementation and sustaining of change.

1.7 Philosophical approach

In the Methodology chapter I will outline the ontology and epistemology assumptions that inform the contextual framework used in this study. In this section I will address the philosophical assumptions I bring to the research study. It is important to disclose my critical stance in this research as it involves being aware of my beliefs and assumptions (Creswell & Creswell, 2018).

I completed the two-year Instructional Leadership Programme as a teacher in 2016. I found the ILP an unique professional development programme providing an opportunity to engage in learning that was relevant to improving my instructional practices and contributing positively to my students learning experience. Prior to attending the programme my professional development experience consisted of one-off workshops with no follow up support upon returning to school. The ILP provided an opportunity for continuous and sustained learning rather than focused on developing teacher collaboration. It was the first professional development initiative I attended in

a formal team of teachers together from a school. This supported me to return to school to implement my learning back into the classroom.

The principal in the school supported me by facilitating the establishment of a Teaching and Learning Club during Croke Park time to share my learning and experiences of the ILP. I invited my colleagues to attend sessions and they had the opportunity to share their learning from other programmes. Attending these sessions allowed me to reflect upon my instructional practices

In 2016 I was appointed Deputy Principal in an urban post-primary school in Ireland. A part of my role in the school was leading teaching, learning, assessment and professional development for teachers. By facilitating teachers with attendance on professional development programmes, it gave me a deep insight of teacher learning and in particular, how initiation and implementation of new instructional practices occurs.

At the same time, I was an associate with Junior Cycle for Teachers (JCT). This part-time role brought me in contact with teachers and school leaders and I able to view their experiences of implementing change arising from their engagement with professional development. The experience of a teacher, deputy principal and associate for JCT formed the first influence that shaped my research area. As I commenced the doctoral programme, I was aware I wanted to explore teachers experience during professional development.

In 2017, I was invited to join the Instructional Leadership Programme Steering Committee. My time on the committee has helped me develop a deeper understanding of initiation and implementation teachers experience during a professional development programme. I had access to readings on professional development, instruction and collaboration and these directed my focus to the experiences of teachers while engaging with professional development. My role as a teacher and deputy principal enhanced this focus to include their experiences upon return to the school to implement their learning.

Prior to joining the Steering Committee, I had undertaken postgraduate research in the areas of school leadership and instruction. Both pieces of research along with my role as a member of the ILP Steering Committee has contributed to my interest in the topic for this Ed. D study.

This research has impacted on my beliefs and values relating to teacher professional development. In particular, the experiences of a teacher on the transfer of learning that occurs from the workshop to the classroom. I have always been intrinsically motivated to take ownership of my own professional development and having the autonomy to engage in types of professional learning that benefited me and improve my practice.

Outlining my positionality in relation to this study is important because of my close links with the ILP. Therefore, it is crucial I outline my beliefs and values, as they have an influence throughout the research process. I am aware of my positionality throughout the research, from initiation of the study, to interpreting the literature, developing the research questions, to selecting the research methods and drawing conclusions. I was always conscious of those elements of the research and was aware of the influence of

my position on my values and beliefs particularly when analysing the data and not drawing interpretations to suit my own agenda. I will discuss my positionality in more detail in the Methodology chapter.

As a teacher and a deputy principal I have a positive experience of the ILP. This experience has highlighted the importance of school context, collaboration, educational change and this has developed my interest in teacher professional development as a research area. Keeping in mind my association with the ILP, I aim to be a neutral researcher throughout the study putting in measures to ensure objective interpretation. I will also engage in a practice of reflexivity to ensure trustworthiness in the study (Berger, 2015).

In the methodology chapter I will discuss further my beliefs and values and outline how I will develop my practice of reflexivity. Those beliefs and values are associated with the ontological and epistemological stances of this research and are shaped by our experiences and interactions with others (Lincoln & Guba, 2000; Walsham, 1995).

1.8 Conclusion

The introduction chapter presented the current context of professional development in Ireland, the rationale, aims and research questions. The research originates from a lack of empirical research that focus on professional development of teachers and the impact it has on their practice, in particular the lack of research on the teachers experiences of change. The chapter outlines the contexts of the study: (1) the Instructional Leadership Programme, the professional development programme; (2) the experiences of fifteen teachers and (3) the school context and how it impacts on change. There is a lack of

understanding of the personal experiences of change along with the factors that support or hinder the transfer of learning from the workshop into practice in the classroom. Therefore, the research will focus on teachers' perspectives of change arising from their engagement with a professional development programme. In addition, the broader context of the study is designed to explore teachers personal experience of change.

1.9 Outline of thesis

In chapter two, I present a discussion on the Instructional Leadership Programme as the vehicle for this study. Chapter three, I explore the literature relating to educational change and professional learning, with a focus on the effective characteristics of professional learning. Chapter four outlines the methodological approach used to collect and analyse the qualitative data. Next, in chapter five, I report the findings of the study, while the discussion of the findings is discussed in chapter six. Finally, in chapter seven, I present the conclusion and implications of the study.

Chapter 2. The Instructional Leadership Programme

The ILP is the professional development programme the fifteen teachers from this study are engaged in and is used to explore their experiences of teacher change. This chapter provides an overview of the programme and I focus on three areas. First, I provide an overview of the structure and purpose of the Instructional Leadership Programme (the ILP) to illustrate the constructs that support its design and its implementation. Second, I provide an overview of the literature on the characteristics of the ILP as a model of professional development and educational change. That overview is explained at three levels: the individual, the school, and the system. Third, I will provide an outline of the design principles and delivery structure of the programme.

2.1 The structure and purpose of the ILP

The characteristics of the ILP are designed and implemented aligned with the characteristics for effective professional development. Those characteristics include a theory of instructional integration, the research on educational change and models of professional development.

In 2008, the ILP was initiated by the County Cork Vocational Educational Committee (VEC) to refine and extend teachers' (in post-primary schools in Ireland) knowledge of 'instructional intelligence'. Instructional intelligence', explained in more depth below, is basically focused on "the artful and thoughtful integration of multiple approaches to teaching and learning" (Bennett and Rolheiser, 2001 p., 45).

The idea of teaching being an art or teaching being a science has been discussed and argued for decades (Fedlman & McPhee, 2007; Gage, 1978; Highet, 1955; Mann, 1989; Marzano, 2017). As stated above, Bennett et al. (2008) describes instructional intelligence as the point at which the art and science of what is known about curriculum, assessment, instruction, how both students and educators learn, and the theory and practice of educational change merge. The idea that a point of convergence exists between art and science was argued by Frye (2002), reporting that art and science exist on the opposite ends of the same continuum. The art refers to the actions taken based on teachers' experience and research to integrate and stack different instructional methods to differentiate the learning experiences of students. The science element of instruction is teachers using research to understand the effect differentiated instructional practices have on student learning. Instructional intelligence implies "a collective expertise that assures all teachers and students are actively engaged in challenging, relevant, and interesting learning situations- situations that connect to their past experiences and engage them in constructing new experiences" (Bennett et al., 2001 p. 4).

Instructional Intelligence merges or intersects six key areas: (1) curriculum, the content of what students learn; (2) assessment, how both teachers and students know what has been learned; (3) instruction, the practices teachers use to teach the students; (4) knowledge of how students learn, this guides teachers with selecting and integrating the different practices to use in the classroom; (5) theories of change, guide professional learning at individual, school and system level; (6) systematic change, how instructional change in guided in a system by all the stakeholders (Bennett, 2010).

Developing an understanding of how the six key areas operate together provides one perspective on the essence of instructional intelligence.

Note: as you read through the next section, the use of the term innovation will be used throughout this study. Rogers (2003) describes an innovation as a belief, concept, or a phenomenon that is new to an individual or group of people. For this study an innovation/change initiative will be regarded as an instructional method implemented in a classroom setting after a professional learning programme. One caveat in this study is that an innovation does not imply that a new practice or idea is better or more beneficial than a teacher's current practice; the issue is how multiple instructional methods can be integrated/merged in the design of more powerful learning environments, that idea is supported by Straub (2009).

2.2 Clarifying the concept of instruction

Prior to illustrating the practical aspects of 'instruction' related to the art and science of teaching, I will clarify how the concept of instruction is applied in the ILP. The world of instruction in education has a variety of terms that are often used interchangeably. In this thesis, I have selected the term instructional practices as the larger label for a more specific range of instructional terms often called approaches, or processes or structures. The rationale for selecting instructional practice as the overarching label is that this label is employed in education throughout the world and in most, if not all, faculties of education.

One issue related to the concept of 'instruction' is that it comes out of a more behaviouristic or positivist paradigm and relates to one person knowing more and

sharing their knowledge with someone or a group of people who know less. The concept of instruction carries a 'history' that implies one person instructs/provides information, and another person receives that information. Bruner (1974) discussed this lack of a way of thinking related to instruction in his text *Toward a Theory of Instruction*. He argued that educators did not have a way of thinking about the interactive effect of instruction. Perhaps one reason is the variety of labels used to refer to the same concept combined with the complexity and extensive research that exists related to the concept of 'instruction'. The idea of a common language around instruction was, and continues to be, somewhat vague (Bennett, 2021).

In the ILP, instructional practices are classified based primarily on their level of complexity, and, for the most part, on their power (effect size) to impact student learning. The labels for these five categories are instructional concepts, instructional skills, instructional tactics, instructional strategies, and instructional organisers.

Linking with pedagogy, pedagogy is a term used to describe these instructional concepts, skills, tactics, strategies and organisers available for teachers to create an environment for students to learn (Bennett & Rolheiser, 2008). The instructional practices can be classified as (1) *instructional concepts-* teacher instructional qualities that support teaching and learning and are enacted with a skill, tactic, or strategy such as enthusiasm or accountability; (2) *instructional skills-* the teachers instructional behaviour to enhance student learning; (3) *instructional tactics-* less complex than an instructional strategy but often enhance or support another instructional method such as Think, Pair, Share; (4) *instructional strategies-* the most complex instructional method involving a series of steps or stages for example Jigsaw or Mind Mapping; (5)

instructional organisers- lenses through which teachers make sense of student learning and support teachers to organise skills, tactics, and strategies into a interrelated pedagogical set or patterns such as Bloom's Taxonomy (Bennett & Rolheiser, 2008; Joyce & Weil, 2014).

Classifying instruction supports teachers to integrate instructional practices more effectively in their planning and teaching. Fogarty (1991) recognises that integration may occur in context but should not be confused with concepts and practices. As teachers become more conscious of their instructional practice by stacking (using one method after another) and integrating (using two or more approaches simultaneously) strategies, concepts, skills and tactics they improve their instructional intelligence and will become more skilful in differentiating their design of learning experiences to meet the diverse needs of their students.

2.3 Characteristics of the Instructional Leadership Programme

Chapter 3 outlines what the literature tells us about the characteristics of effective professional development, this section outlines how the ILP reflects many of these said characteristics. The literature shows that professional development programmes that are sustained over time are more effective. Longer periods of professional development provide teachers an opportunity for in-depth discussion of content and instructional strategies and obtain evaluation on their practices (Garet et al., 2001). The process of one-day workshops with no follow-up, while the standard process in most educational systems, began to change as a result of the research on Peer Coaching (Bennett, 1987; Joyce & Showers, 1982) and the development of Professional Learning Communities (DeFour & DeFour, 2013). The ILP operates over a two-year period with participants

attending four workshops each lasting for two and a half days. This was an extended piece of professional learning for teachers, was a sharp contrast from the traditional one-day initiative that was experienced in Ireland before (Hislop, 2015). Throughout the two-year period, professional leaning communities are formed within schools and across schools, with teachers sharing their learning, and their experiences of implementing their learning.

Second, teachers attended the programme in teams of three (rather than the more common practice of an individual teacher attending a professional development programme and attempting to implement new instructional practices in isolation). Highly effective professional development programmes are successful when teachers work collaboratively in teams, have opportunities to practice and reflect upon progress (Bennett, 1987; Joyce and Showers, 1982). At each session, the teachers engage in theory and research on the new instructional practices. The innovations are modelled, and the participants practice and receive feedback and coaching on the innovations. The teachers return to school and are expected to implement the new instructional practices in their classrooms, reflect on the process and meet in teams to discuss progress and provide peer support.

Teachers who attend professional development and have no collegial support upon return to school are less likely to implement the new practice. On the other hand, teachers who support each other when they return to school will more likely lead to successful implementation of the innovation (Tunks & Weller 2009). They are also more likely to engage with conversations with their colleagues on implementation issues that arise during the professional learning experiences. A group of teachers

engaging in professional learning also helps to sustain changes in practices over time and help to contribute to a shared professional culture to develop a common understanding of instructional goals and teaching strategies (Garet et al., 2001). Further evidence from Saunders (2014) highlights that teacher found that having an extended period to learn and reflect upon the innovation supports them in implementing innovations. That said, Gusky (2009) outlined that simply adding more time to a programme does not make it more ef

Third, it is an essential component of the programme that when a school signs up to participate, a member of the SLT must participate, thus each school is represented by a principal or deputy principal and two teachers. Fullan (2005) acknowledges that although leadership is a complex and contested concept, it has a considerable impact on promoting and sustaining change in the classroom. The principal/deputy principal understanding the language of learning can support a change in instructional practices in the school.

2.4 Instructional Leadership Programme - a model of professional development

The Instructional Leadership Programme is designed around 'The Skill Training Model' (Joyce & Showers, 1982, 2002) that supports a framework for teachers to effectively transfer their learning from the programme into their practice (Joyce & Showers, 1982). The model contains a series of components that merge to create a version of peer coaching. This model involves the following components: (1) the presentation of new skills, (2) modelling or demonstrating the new skills, (3) practice of the new skills in a school context, (4) feedback on performance in a school context and (5) peer-coaching and support in school. The study of theory, observations and

practice provides the teacher with the ability to use an innovation in their practice. The development of skill solely by itself does not ensure transfer of the innovation back into the teacher's classroom. A teacher may be able to master an innovation by observing it alone during professional development; however, when the coaching component of the model is added and implemented effectively teachers will begin to transfer the innovation more effectively as part of their repertoire (Bennett, 1987; Joyce & Showers, 1982).

Theories and models of change remind us that individuals change and not organisations (Fullan, 2016; Hall et al., 2006). Key to the research on the Skill Training Model, teams of teachers must return to the school after the workshop where they enact the innovation and find the time to assist one-another by co-planning lessons, observing each others teaching or sharing resources (Joyce & Showers, 1982). One key strength of the Skills Training Model is it outlines the conditions for effective transfer of learning from the workshop to the classroom. That said, educators must know the Skill Training Model is not without its limitations. First, the model does not explain or capture how a teacher's expertise develops over time. In addition, it does not deal with the complexity and necessity for teachers to integrate multiple instructional methods into the design of a learning experience. With that in mind, a review of the literature on school context along with research on educational change was needed to address the Skill Training Model's limitations. Those limitations are outlined in the Literature Review.

2.5 The Delivery Structure of the Instructional Leadership Programme

The Instructional Leadership Programme operates over a two-year period with participants attending four session each lasting two and a half days. Over the two years,

participants engage in fourteen modules. Appendix 10 outlines the aims and learning outcomes of each module. The modules are:

1. Basic Principles of Instructional Leadership

2. Exploring the Concepts of Instructional Leadership

3. Instructional Concepts and Instructional Skills

4. Instructional Tactics

5. Instructional Organisers

6. Lesson Design

7. Co-operative Learning

8. Concept Attainment

9. Concept Formation

10. Mind Mapping and Concept Mapping

11. Academic Controversy and Team Analysis

12. Instructional Leadership and Assessment

13. Instructional Leadership and Classroom Management

14. School Self Evaluation and School Improvement

The ILP instructional practices are based primarily on their level of complexity and in part on their power (effect side) to impact student learning. The design sequence and delivery of the programme is developed to support participants understanding that less complex practices are required to enact the more complex practices. That said, there is a design interdependence between instructional concepts, skills, tactics, strategies, and organisers and this is reflected in the delivery structure of the programme. Therefore, the participants will engage with parts of a module during each session with the less

complex aspects of the modules introduced first. The more complex aspects of the modules are followed up in later sessions.

Below is an outline of the each of the four sessions. Each activity is linked to the module of the programme.

Table 2.1 Session 1

Day 1		Day 2		Day 3	
Agenda	**Module**	**Agenda**	**Module**	**Agenda**	**Module**
Concept/Fact	Exploring the Concepts of Instructional Leadership & Concept Formation	Enacting Key Concepts	Exploring the Concepts of Instructional Leadership & Instructional Concepts and Instructional Skills	Instruction & Assessment	Exploring the Concepts of Instructional Leadership
Self-Assessment	Instructional Leadership and Assessment	Enacting Key Skills	Instructional Concepts and Instructional Skills	Classroom Management	Instructional Leadership and Classroom Management
Instructional Intelligence	Basic Principals of Instructional Leadership	Concept Attainment	Concept Attainment & Concept Formation		
Classroom Management	Instructional Leadership and Classroom Management	Think, Pair, Share Place Mats KWL Charts	Instructional Tactics		

Phase 1 of data collection for this study: The SoCQ was administered to the fifteen participants at the beginning of session two of the Instructional Leadership Programme in October 2019.

Table 2.2 Session 2

Day 1		Day 2		Day 3	
Agenda	**Module**	**Agenda**	**Module**	**Agenda**	**Module**
Assessment – Teams Games Tournament	Instructional Leadership and Assessment	Review of Levels of Use	Basic Principals of Instructional Leadership	Mind Maps and Concept Maps	Mind Mapping and Concept Mapping
Review of Instructional Intelligence	Basic Principals of Instructional Leadership	Effective Groupwork with Positive Interdependence integrating Jigsaw and 5 Basic Elements	Co-operative Learning	Integrating multiple graphic organisers	Instructional Organisers
The critical characteristics of effective group work	Co-operative Learning	Planning and Co-teaching a lesson	Basic Principals of Instructional Leadership	2/3 persons interviews re Mind Maps and Concept Maps	Co-operative Learning & Mind Mapping and Concept Mapping
		Classroom Management	Instructional Leadership and Classroom Management		

Phase 2 of data collection for this study: At the beginning of session three of the ILP (March 2020), the fifteen participants completed the SoCQ.

Table 2.3 Session 3

Day 1		Day 2		Day 3	
Agenda	**Module**	**Agenda**	**Module**	**Agenda**	**Module**
Review of Concept Maps	Mind Mapping and Concept Mapping	Effective groupwork, structuring groups, T-Chart	Co-operative Learning	Teams Games Tournament	Instructional Leadership and Assessment
Instructional Classification	Basic Principals of Instructional Leadership & Instructional Tactics & Instructional Organisers	Lesson Design	Lesson Design	School Self-Evaluation	School Self Evaluation and School Improvement
Mind Maps on the 4 Roles of Teachers (Involving 5 Basic Elements of Groupwork)	Mind Mapping and Concept Mapping & Co-operative Learning	Planning and co-teaching a lesson	Lesson Design & Basic Principals of Instructional Leadership		
Classroom Management	Instructional Leadership and Classroom Management				

Phase 3-5 of data collection for this study:

1. Semi-structured interviews were conducted with the fifteen participants between March 2020 and September 2020.

2. An online SoCQ was administered to the participants in June 2020.

3. Six participants with a peak score Stage 5- Collaboration were interviewed to examine their perception of coordinating with others on implementing instructional practices from the ILP.

Table 2.4 Session 4

Day 1		Day 2		Day 3	
Agenda	**Module**	**Agenda**	**Module**	**Agenda**	**Module**
Classroom Management	Instructional Leadership and Classroom Management	Lesson Design	Lesson Design	Academic Controversy connected to the Johnsons' 5 Basic Element	Academic Controversy and Team Analysis
6 Thinking Hats PMI	Instructional Tactics	Team Analysis	Academic Controversy and Team Analysis		

The facilitation of the workshops involves the Skill Training Model (Joyce & Shower, 1980; 1982; 2002). With this model, teachers attend the workshops in teams with a school leader. They receive the presentation of theory/information, demonstration, practice and feedback in each workshop. In the workshops, teachers sit in groups together and experience the skills, tactics, strategies and concepts similar to a student in a classroom. During the four sessions, teachers experience modelling, they engage in lesson design, co-teaching, peer learning and professional reflection, to support them in their journey of applying their learning in their classrooms. The teachers than return to their schools and support each other in their application. Peer coaching is one element to emerge from the Skill Training Model and has a powerful effect on the transfer of learning from a workshop to the classroom (Joyce et al., 1980: 1982; 2002).

2.6 Conclusion

The ILP is the professional development programme vehicle used in this study, and this chapter provides an overview of the structure of the programme and its characteristics as a model of professional development. While it sets out the principles of the ILP and how they align with the effective characteristics of professional development, it by no means is intended to provide an argument that the ILP is the ideal model of professional development for teachers in Ireland.

I clarify the concept of instruction and why the term instruction and instructional practice is used in this thesis. The ILP, the concept of instruction and the corresponding characteristics of professional development are constructed on research literature related to effective professional development.

Chapter 3. Literature Review

3.1 Introduction

This literature review is structured around five broad areas that inform teachers engaging in professional development and their experiences of implementing new instructional practices. First, I begin with a summary of the research literature on teacher professional development. This section outlines a definition of professional development along with the impact professional development has on teachers' beliefs and practices. Second, I follow with a discussion on the characteristics of effective professional development. In this section, I provide seven effective characteristics outlined in the literature to support professional development in refining and extending knowledge of teachers.

Third, I outline the research literature that provides an understanding of the contextual factors at individual and schools level, of professional development. This section discusses both the individual teacher and the school context. The review focuses on the affective nature of change for the individual teacher such as the beliefs, concerns and emotions they experience engaging in a professional development programme. The school context provides a summary of the role of the school leader and collaborative cultures in the context of professional development. Fourth, I discuss the literature of educational change research and provide an outline of the global spread of educational change knowledge.

The final section of the research literature addresses teacher agency. This section links the four preceding sections together to examine the research literature on professional development, contextual factors and educational change to inform teachers implementation of instructional practices from a professional development programme.

3.2 Teacher professional development

This section of the literature review provides a definition for professional development. I will also outline the role that beliefs have on a change in instructional practice and follow with characteristics of effective professional development. Paechter (1996) argues that regardless of the variety definitions of professional development we must stay focused on the idea that it represents "the development of the profession" (p. 254). With that in mind, definitions range from the maintenance of teacher practice to the broader issues of developing practitioners as lifelong learners in terms of both their personal and professional learning (Lammintakanen & Kivinen, 2012; McMillan et al., 2014).

Guskey (2000) defines professional development as "those processes and activities designed to enhance the professional knowledge, skills and attitudes of educators so that they might, in turn, improve the learning of students" (p. 16). Avalos (2011) definition of professional development aligns with Guskey as a process of teachers' learning, how they learn and how they put their new knowledge and skills into practice.

Acknowledging that professional development models focus on different aspects of teaching, run for different lengths of time and use different instructional approaches (Guskey, 2002), those two definitions support three goals for professional development: (1) to bring about change in the instructional practices of teachers' (2) to bring about change in teacher attitudes and beliefs, and (3) to improve the learning outcomes of the students (Guskey, 2002, p. 381). Clearly, making professional development related to extending and refining teachers' professional knowledge and practice to impact students' learning is central to any systemic reform in education. What appears as common is that professional development is a process that is intentional, ongoing and systemic (Guskey, 2000; Hall et al., 2006).

If the goal of professional development is to bring about a change in the instructional practices of teachers, a change in their beliefs or attitudes and an improvement in students' outcomes, then the debate is over whether educators have different stances in terms of what comes first, change in beliefs or change in practice. In some cases, researchers argue that change in behaviour will only occur after there are changes in understanding and beliefs about how students learn (Hargreaves & Fullan, 1992). Guskey (2002), however, maintains that professional learning often attempts to change beliefs and attitudes of teachers in the effort to convince teachers to change their instructional practices, and in response, teachers tend to be reluctant to change practices without knowledge of their success. In terms of complexity, Smylie's (1988) study of in-service teachers found that perceptions and beliefs of teachers were the hardest to change. Clearly, this is not an either/or issue. A change initiative can be linear in nature with a change in beliefs leading to a change in practice. In turn, that change in practice has an impact on student learning, which then has a further impact on a change in

practice resulting in further changes in beliefs. For teacher learning to occur, Opfer and colleagues posit that a change must happen in all three areas (Opfer et al., 2011).

Guskey (2000) believes a vital attribute of professional development is for programmes to have clear goals. He argues when the goals of professional learning programmes are clear, the purpose and the intentions of professional development guide how the goals can be assessed. He emphasises evaluating the effects of professional development is less complex when clear goals provide information that needs to be collected to ascertain outcomes. He views professional development as an intentional, ongoing and systemic process with change occurring over an extended period. It considers the individual teacher, the school and the system and it accommodates development among all three areas.

Empirical literature reports a wide variety of contrasting views on professional development but it acknowledges that characteristics of effective professional development evident in programmes are designed to bring about a change in teachers practice (Borko, 2004; Darling-Hammond, 2017; Darling-Hammond & McLaughlin, 2011; Desimone, 2009; Wei et al., 2009) and a change in their beliefs (Avalos, 2011; Guskey, 2002, 2009).

Teacher professional development is a powerful means to improve student achievement. It is important to know the characteristics that contribute to effective professional development (Avalos, 2011; Borko, 2004; Guskey, 2009; Darling-Hammond, 2017; Desimone, 2009; Joyce & Calhoun, 2010). In the next section, I will

outline the characteristics of effective professional development according to research that can positively impact upon student achievement.

3.3 Characteristics of effective professional development

Despite the diverse literature on the goals of professional development, the literature does provide content on characteristics for effective professional learning. Effective professional learning is defined as "structured professional learning that results in teacher practices and improvements in student learning outcomes" (Darling-Hammond et al., 2017 p. 2). Theory highlights that professional development is a powerful tool to improve student achievement (Guskey, 2002). And logically, we must understand and act on those components of effective professional development programmes to positively impact student achievement.

Both theoretical review and empirical reports identify seven characteristics of effective professional development that impact student achievement (Borko, Jacobs & Koellner, 2010; Darling-Hammond, 2017; Darling-Hammond & McLaughlin, 2011; Garet et al., 2001; Guskey, 2009; Opfer & Pedder, 2011; Wayne, et al., 2008).

1. Content focused. Professional learning that focuses on learning and the learners, emphasise individual and organisational change, introduce changes in small steps guided by a grand vision and be ongoing and embedded in teachers' work (Darling-Hammond et al., 2017; Garet et al., 2001; Guskey, 2000).

2. Sustained duration. Professional learning provides time for teachers to engage in the content of professional development over a sustained period (Garet, 2000; Garet

et al., 2001) rather than those that are brief and anecdotal (Darling-Hammond et al., 2017; Opfer & Pedder, 2011).

3. Offers feedback and reflection. Professional learning should provide feedback for participants to reflect and dialogue among colleagues, make changes to their practices and supporting the teacher moving towards expert visions of practice (Darling-Hammond et al., 2017; Garet et al., 2001; Joyce & Showers, 2002a).

4. Supports collaboration. Professional learning provides the opportunity for teachers from the same school to collaborate over a period (Darling-Hammond et al., 2017; Guskey, 2000; Opfer & Pedder, 2011).

5. Uses models of effective practice. Models of educational change along with theories of change provide examples of best practices (Darling-Hammond et al., 2017; Fullan, 2016; Guskey, 2000; Hall & Hord, 2015).

6. Provides coaching and expert support. The use of sharing of excellent practice, modelling, demonstration and reflecting upon practice (Darling-Hammond et al., 2017; Joyce et al., 1995).

7. Incorporates active learning. Professional learning should provide teachers with the experience of active learning methodologies. This approach moves away from the traditional learning models that are lecture based towards a workshop approach where teachers experience the same style of learning as their students (Darling-Hammond et al., 2017; Garet et al.,2001).

Attending to those seven characteristics (as much as possible) is crucial for this research as they can be used in different setting by teachers, schools and policy makers. Opfer et al. (2011) argues professional development is part of a complex system and it is important for policy makers to have an awareness of the complex elements involved in

professional development programmes. These elements include three foci: (1) the individual teacher; (2) interactions between teachers and (3) the school as a system and the various interactions that can occur in that system as teachers engaged in professional development.

The issue presented in the literature is not that a lack of appropriate evidence exists on implementing the characteristics across different contexts but rather a lack of direction on how they could be implemented across many contexts. Although contexts may diminish judgements about effectiveness of professional development, acknowledging the many complex contexts professional development occurs allows the characteristics of professional development to be applied to the design of programmes. This in turn increases the likelihood of implementation (Hunzicker, 2011; Garet, et al., 2001; Garet et al., 2016; Guskey, 2009; Joyce & Calhoun, 2010; Wayne, Yoon, Zhu, Cronen, & Garet, 2008).

Therefore, both theoretical and empirical literature on the characteristics of implementation informs this study. First, this study uses one specific professional development programme (Instructional Leadership Programme). The research acknowledges the various contexts involved in professional development such as the individual teacher, the school and the programme. It explores the contexts teachers work in and the factors that support or hinder teachers implementing new instructional practices. Second, the design of the ILP is developed from design principles from research around the effective characteristics of professional development. Third, a challenge for professional development is the transfer of learning from the workshop to the classroom. The Skill Training Model's (used by the ILP) main advantage is that

it provides consistency in learning while outlining the fundamental circumstances in which effective learning transfer occurs from the workshop to the classroom (Bennett, 2007; Warren-Little, 1993; Rhine, 1998; Rhodes et al., 2004). Guskey (2008) acknowledges the context of professional development (including programme, teacher and school) is crucial but the content and the process of the programme trumps context.

3.3.1 Content focused professional learning

Above, I discussed how the effective characteristics of professional development relate to this study. That said, the evidence from research also reports that a focus on content to be "the most influential" feature of professional development (Desimone, 2009, p. 184). Logically, professional development needs to be focused on the content teachers teach to improve student achievement (Antoniou et al., 2016; Doppelt et al., 2009; Darling-Hammond et al., 2017; Meissel et al., 2016; Penuel et al., 2011). It appears that the concept of 'content' can appear somewhat amorphous. Shulman (1992) clarified this by classifying the 'content' of professional development into three categories: (1) subject matter, (2) teaching methods, and (3) pedagogical content knowledge (Shulman, 1992). (Note: pedagogical content knowledge refers to teachers' interpretations and transformations of subject-matter knowledge in the context of facilitating student learning).

Most empirical studies on content examine curriculum content Maths, Science and English (Kennedy, 2016). When instructional content is addressed in teacher learning the focus shifts to how to teach the curriculum (Borko et al., 2010). Four studies by Garet et al. (2008, 2010, 2011, 2016) examining content knowledge with the focus of improving student achievement found no evidence of a positive effect on student

achievement following teachers' engagement in professional learning focusing on content, instruction, coaching, active learning, modelling and feedback. Content focused professional learning associated with changing instructional practices of teachers is the most effective form of teacher learning (Desimone et al., 2002; Garet et al., 2001).

Ideally the focus of professional development should align with the needs of the school and the system (Darling-Hammond et al., 2017; Zepeda et al., 2014) but some teachers engaging in professional development lack strong focused teaching skills (Reynolds, 1995; Rhine, 1998). Gore & Rosser (2020) study on content-focused professional learning found that a focus on instruction and developing collegial relationships had more impact on teachers' beliefs and practices than a focus on curriculum content. They believe a focus on instruction and collaboration provides for a stronger contribution to school improvement.

3.3.2 Sustained duration

Effective professional development is not a one-time activity nor a series of unrelated activities; it must be developed through sustained learning activities supporting a change in perceptions of teachers' learning (Bubb & Earley, 2010; Hall & Hord, 2016; Opfer & Pedder, 2011). The one-time workshop is unlikely to have any effect on a teacher to change their practice (Darling-Hammond, 2017; Desimone, 2009). Garet et al. (2001) states that teachers report that sustained and intensive professional development is more likely to have an impact, than shorter professional development (p. 935). Keeping this in mind, there is no evidence outlining the correct duration of a programme to support change. In their review Darling-Hammond et al. (2017) state:

research has not yet identified a clear threshold for the duration of effective PD models, it does indicate that meaningful professional learning that translates to changes in practice cannot be accomplished in short, one-time workshops (p. 15).

In their review, Darling-Hammond et al. (2017) analysed thirty-five studies that focused on the impact of professional development over a sustained time. In those studies, the most common model of sustained professional development discussed was participation in an initial intensive workshop followed up with additional days or coaching to extend and refine teachers' practice. Thirty-one of those studies reported reinforced learning for the teacher over a sustained duration of professional development. One advantage of sustained professional development is that teacher learning may continue outside the formal structure of the workshops by means of collaboration with colleagues, other teachers attending the workshop or informal conversations with teachers (Darling-Hammond et al., 2017). A study by King (2016) showed that teachers are willing and open to engage and sustain change when they have the autonomy to adapt practices from a professional development initiative to meet their students and their own needs.

3.3.3 Offers feedback and reflection

Darling-Hammond et al. (2017) believes feedback and reflection are two powerful tools in effective professional learning. They can be interlinked with mentoring and coaching. The practice of generating feedback and reflection can be achieved through the sharing of lesson plans, demonstrating lessons and teams of teachers attending professional learning from a school together.

Joyce and Showers (1995) peer coaching model, Skills Training Model offers a model of effective practice to promote teacher learning. The model can be used to support the characteristics of effective professional learning. Their model consists of five components:

1. Presentation of new skills

2. Modelling the new skills

3. Practice in simulated settings

4. Feedback on performance in simulated or real settings

5. Coaching on the job

The fourth component of the model, feedback on performance in simulated or real settings offers teachers the opportunity to engage in feedback and reflection during the process of professional development. This model is used by the Instructional Leadership Programme to support teachers with peer coaching.

3.3.4 Supports collaboration

Collaborative professional development is defined as "specific plans to encourage and enable shared learning and support between at least two teacher colleagues on a sustained basis" through a professional development programme (Cordingley et al., 2004, p. 2). Models of collaboration can vary between one-on-one, small groups to school-wide collaboration. In this study of the ILP, collaboration refers to a sustained basis as a professional development programme designed to continue for at least 6 weeks a year for two-years (total of 12 weeks). In a later study by Cordingley et al. (2005) collaborative professional development produce changes in teacher practice, values, attributes, beliefs and student achievement. Both studies describe a positive impact of collaborative professional development on teachers implementing

instructional practices. With that in mind, in this study, I examine the experiences of three to four teachers per school from five schools attending a professional development programme (the Instructional Leadership Programme) to refine their instructional practice.

Both of Cordingley et al.'s studies describe a positive influence of teacher collaboration. It is viewed as an important part of teacher learning, not only because teachers learn by working with other teachers, but it also has a positive impact on the whole school community and student achievement (Brodie, 2021; DuFour et al., 2005; Hairon et al., 2017; Stoll et al., 2006). Given the increasing number of empirical studies showing the impact of teacher collaboration on student achievement, one can understand why teacher collaboration is viewed as an essential element of professional development and school improvement (Borko, 2004; Harris, 2010; Harris et al., 2010). Hargreaves and Fullan (2012) argue that "a more collaborative and collegial profession improves student learning and achievement" (p. xii). A study by Lara-Aleco et al. (2012) found when teachers engaged in collaborative professional development focused on instructional practices reported their students achieved higher scores in science and reading assessments than students whose teachers did not attend such professional development activities. Positive effects of collaborative CPD generally appeared only after periods of relative difficulty in trying out new techniques; things frequently got worse before they got better (Cordingley et al., 2004, 2005). This can also be described as the implementation dip (Fullan, 2007).

Evidence from both theoretical and empirical research also describes aspects of teacher collaboration that have a negative impact upon teachers. Horn et al. (2010) believes

collaboration that involves meaningful learning is difficult to achieve. Hargreaves (1991) adds that another failure of collaboration may occur when teachers are forced to work together for bureaucratic reasons rather than through a process that is more voluntary, and teacher directed. Maloney et al. (2011) outlines when both professional and productive conflict arise in teacher collaborative communities provides challenges for the teachers engaged in these communities. Later in this section I will discuss in more detail types of collaborative communities that occur in schools. The rationale for this deeper discussion is that teacher agency plays a significant role in collaboration at school level; teachers simultaneously create and experience collaborative cultures together (Kelly et al., 2015; Maloney & Konza, 2011; Philpott et al., 2017; Riveros et al., 2012).

3.3.5 Uses models of effective practice

This characteristic focuses on the use of modelling of effective practices, in particular teachers observing instructional practices in action. Models of effective professional development other than demonstration lessons could also involve peer observations; reading case studies of teaching; and having teachers attending professional development in teams. That said, the most powerful form of modelling is teachers viewing a practice (the implementation of the innovation) in their classroom. (Bates & Morgan, 2018; Doppelt et al., 2009; Heller et al., 2012; Kleickmann et al., 2016).

Professional development programmes that focus on refining the instructional practices of teachers need to pay attention to teachers' specific instructional needs and their classroom contexts. Those classroom contexts justify providing opportunities for modelling, demonstrations, observations and feedback from colleagues and

professional development practitioners to support the implementation of new practices (Desimone, 2009; Kuijers et al., 2019; Lieberman & Pointer Mace, 2008).

The Skills Training Model has four elements at its disposal. The second component of the Skills Training Model (Joyce & Showers, 1995) is modelling the new skill. The first component of the model is knowledge and consists of the theory or rational shared through discussion or reading. There is no follow up required from the teacher.

The second component provides the opportunity for the teacher to experience modelling the new skills through demonstration of lessons and peer observations. Joyce & Showers (1982; 1984; 2002a; 2002b) studies report modelling used under practice conditions along with practice in the classroom is a productive form of transfer of learning from the workshop to the classroom. The studies report when teachers experience instructional practices from a professional development programme together in the form of modelling, they are more successful at implementation.

Their research reports a combination of the first two components, modelling and knowledge can have reciprocal effects. The demonstration (modelling) can be mixed with the explanation (knowledge) and need not to be conducted separately (Joyce and Showers, 1982; 2002a; 2002b).

3.3.6 Provides coaching and expert support

The previous section focused on the role of using effective practice to promote teachers improving their practice. This section provides a guide of a model of coaching that meets the effective characteristics of professional learning. Field (2011) reports planned

coaching support can benefit organisations and their educational change process. Earley & Porritt's (2014) study on effective practices for professional development supported earlier research that found that coaching can lead to a significant change in the culture of a school resulting in an improvement in teachers instructional practices and their subject knowledge.

Coaching provides a structure for providing support (by expert coaches or teachers) on an individual one-on-one or a group structure by enhancing teaching and learning through self-awareness and a sense of personal responsibility. It can support effective implementation of new practices, tools or curriculum reform by facilitating self-directed learning through questioning, active listening and appropriate challenges in a supportive environment (Darling-Hammond, 2017; Knight & Van Nieuwerburgh, 2012).

The peer coaching component of the Skills Training Model by Joyce and Showers (1995) is the collaborative work of teachers to solve problems that arise during implementation. The model begins with the teachers at the workshop and continues in the classroom. Peer coaching provides support for a group of teachers attempting to master a new skill and plan and develop lessons. The use of peer coaching provides steps teachers could take to increase the chances of transferring their learning into their classroom practice.

The teachers attending in teams support one another through peer coaching resulting in effective transfer of teacher learning into improved or changed practice (Joyce & Showers, 2002b). When the components are used together, they have a greater impact

than when used alone (Joyce & Showers, 1982). The ILP uses the model as part of the design structure of the programme to support teachers with the transfer of learning from the workshop to the classroom.

3.3.7 Incorporates active learning

Prior to the turn of the century models of professional development in Ireland were delivered in lecture format, delivered to teachers who were passive recipients and did not engage in active transfer of learning. Those models of professional development were viewed as the expert providing a lecture to teachers on how to do their job and to the types of practices teachers should use in their classrooms. Teachers had no input into this type of professional development (Brookfield, 1986).

Teachers changing their instructional practices traditionally were linked to their professional development (Clarke & Hollingsworth, 1994). Most workshops were one day events aimed at changing knowledge and skills of teachers, with teachers sitting passively listening to the "expert" (Clarke & Hollingsworth, 2002; Garet et al., 2001; Desimone et al., 2002; Penuel et al., 2007). Evidence emerging illustrating this type of workshop was ineffective for teachers to change their practices (Guskey, 1986; Howey & Joyce, 1978; Johnson, 1989). This has led to a shift in how professional development was conducted. Clarke et al. (2002) report agency as a crucial factor for professional learning. They describe agency as "teachers as active learners shaping their professional growth through reflective participation in professional development programmes and in practice" (p. 948).

3.3.8 Limitation of the skills training model

I have discussed the Skills Training Model as a model to support the characteristics of effective professional development. Three limitations are evident in the literature for the Skills Training Model. First, peer coaching is suitable depending on the content of the professional development and the context (Warren-Little, 1993). Second, providing time together does not guarantee teachers will work effectively together in their peer coaching teams. Third, teachers may experience a challenge in securing time and space to meet to ensure peer coaching is successful (Rhine, 1998; Warren-Little, 1993).

The effective characteristics of professional development place an emphasis on high quality professional learning through active learning, collaboration, the use of modelling, feedback and coaching along with a focus on content and instruction and having sustained duration. The next section examines the conditions for effective professional development followed by a discussion on the contextual factors supporting or hindering teachers from implementing instructional change in their classrooms.

3.4 Features of effective professional development

Empirical and theoretical research literature views professional development as the vehicle for positive educational change (Borko, 2004; Desimone, 2009; Joyce & Calhoun, 2010; Opfer et al., 2011) to improve teachers' knowledge and skills and tangentially, to motivate them to improve or refine their practice (Borko, 2004; Kennedy, 2016). If the goal of professional development is to change practices, attitudes and beliefs then the context and manner of how professional development is delivered is crucial. What makes this difficult, is that professional development for

teachers is a complex system made up of teachers and school level systems (Ingvarson et al., 2005; Lieberman & Pointer Mace, 2008; Opfer et al., 2011; Yoon et al., 2007).

Teachers are asked to implement change in complex situations, working in political, economic and social contexts with little knowledge of their experiences of change (Hargreaves & Fink, 2012; Hargreaves and Shirley, 2008; 2009; 2012). Hall & Hord, (2015) and Fullan (2016) acknowledges both the system and the individual as central in addressing the context and process of educational change. Buczynski & Hansen's (2010) study discussed the barriers teachers experience with implementation of new practices from professional development. They argue professional development is only as effective as a teacher is willing to implement the new knowledge and skills. One aspect of their study reports teachers often experiences challenges to implementation that are beyond their control and their response to this challenge can sometimes depend on their school context.

Keeping that in mind, schools are also complex systems (Fullan, 2016) and as discussed later, schools' contextual factors play a role in teacher learning. The nature and structures of these contexts are crucial to understand (Guyton, 2000) and when the correct structures are in place, the challenges teachers' experience around implementation can be overcome. Supportive school structures include: a culture of support provided to teachers to learn locally (Lieberman et al., 1990; Villegas-Remers, 2003); value collaborative structure among teachers (Kelchtermans, 2006), opportunities for feedback, evaluation and reflection on teachers' work (Talbert & McLaughlin, 1994) and supportive school leaders who are involved in teachers' professional development (Ehrich 1998; Payne & Wolfson, 2000).

The complex set of structures embodied in features of supportive school contexts for professional development can be understood if they are considered in the cultural contexts of schools. Specific sets of activities, systems and supports for teacher learning used in one context can be different in another context even when the aim is to have the same outcome (Opfer et al.,2011). To enhance teachers' professional development and learning an understanding of the uniqueness of school contexts is required (Rahman, 2022).

In this next section I will discuss those contextual factors of the professional development system into three areas: (1) the individual teacher; (2) the school context and (3) educational change. In each area I will discuss the factors that support or hinder teachers implementing instructional change in their classroom.

3. 5 Contextual factors

Earlier, I outlined that professional development considers the individual teacher, the school and the system and that it accommodates development among all three areas. In this next section I discuss the literature in those three areas and the factors that support or hinder teachers implementing instructional practices acquired in a professional development programme. First, I will outline why individual teachers participate in professional development and then follow that with the personal side of change focusing specifically on teachers' affective experiences of change. The research of the affective nature of change will include (1) change in beliefs; (2) change in concerns; and (3) understanding teachers' emotions and change (Chen, 2016; Hall et al., 2015;

Hargreaves, 2000; Lee & Yin, 2010; Sutton & Wheatley, 2003; Uitto et al., 2015; Zembylas, 2002).

3.5.1 Individual teacher level

As mentioned previously, teachers engaging in professional development can involve a change in practices, beliefs, skills and knowledge (Evans, 2010; Fullan, 2010; Hall & Hord, 2006; James, 2010). I also discussed earlier that a lack of empirical evidence exists connected to teachers' interactions in professional development and their perceptions regarding change (Guskey, 2000; Wilson & Berne, 1999). We also know that change is constant, relentless and a difficult process to navigate given the many different emotions that teachers experience both inside and outside the classroom (Hargreaves, 1998; Scott & Sutton, 2009). So why do teachers participate in the process of professional development?

3.5.1.1 Teachers' participation in professional development

Teachers are generally required to take part in professional development due to certification or policy requirements; but many studies report teachers engage in these activities to become better teachers (Fullan, 1991; 1993; Guskey, 2002). Evidence from research cites one reason teachers voluntarily engage in professional development is the belief it will impact on their students' learning (Bolam & Weindling, 2006; DfEE, 2001). To understand and explain why teachers engage in professional development, understanding the school context and the relationship the teacher has with their school is important (Bigsby et al., Birman et al., 2000; 2017; Hunzicker et al., 2011; Opfer et al., 2011). Professional development is influenced by a myriad of situational factors that support or hinder a change in instructional practices (Evans, 2010) including an

understanding of how practices are implemented in schools and the factors that support or hinder teachers implementing change (Opfer et al., 2011).

Commitment from teachers to engage in professional learning is vital; however, a voluntary participation in professional learning does not guarantee engagement in the process. Teachers' participation in professional development may be due to administrative or peer pressure. That 'pressure' may result in a lack of deep learning or significant changes in classroom practices when participating in professional development programmes, even if those programs are practical (Timperley & Alton-Lee, 2008).

The results of other empirical studies report that professional development endeavours often result in teacher resistance towards educational change. Bubb et al.'s (2008) study found that some teachers felt no responsibility to change practices after taking part in a professional development programme. Hollingsworth (1999) identified that teachers had difficulties with implementing new practices. The study outlines a lack of understanding around the theory and practice of the new practices, such as the lack of coordination and leadership and little collegial support upon return to school. Opfer et al. (2011) revealed that although teachers may have an appreciation for the instructional practices of the programme, they don't implement the practices upon return to school.

Professional development programmes designed to shift teacher's classroom practices, beliefs, and attitudes, as well as, to improve student learning must pay attention to change research (Day et al., 2009; Guskey, 2002; Schmidt et al., 2005). When teachers have the same ideologies as the reform or change effort, they typically support the

change and express positive opinions on the change reform. On the other hand, teachers who are resistant to the reform will express negative emotions (Schmidt et al., 2005). A UK study of 388 schools found that teachers in low performing schools had negative emotions towards professional learning as it was associated with performance management leading to little or no change in their practices (Opfer & Pedder, 2011). Miles and Huberman, in their 1984 study, reported that teachers experience conflict when trying to change instructional practices.

This next section reports the social and emotional factors that support or hinder teachers implementing new instructional practices. I follow with a discussion on teachers' beliefs, perceptions and emotions. An understanding of change is required especially of teachers' emotions when implementing professional development models. Having teachers understanding that change is a gradual process that plays out over time is important. Key here is to understand that 'change wisdom' is also a skill set that educator must acquire. One key part of that wisdom is learning that to be competent at a new practice that increases student learning through increasing teacher competence requires time and effort. That said, any educational change that is worth implementing will require additional work in the beginning (Fullan 2001; Guskey, 2002; Hall & Hord, 2006; Huberman, 1983).

The intent of this study is to contribute to the existing literature on teacher experiences of professional. Concerns and emotions are tied to experience (Avalos, 2011; Day et al., 2009; Guskey, 2009; Hall et al., 2006; Joyce & Calhoun, 2010; Schmidt & Datnow, 2005; Zembylas, 2005). The research contributes to how the personal nature of change influences teachers' instructional practices. Teachers' beliefs, perceptions and emotions

are indicators of decisions they make during implementation. This study does not compare the affective nature of change to actual classroom practices.

3.5.1.2 Changes in teachers' attitudes and beliefs

Teachers' beliefs refer to the perspective and conception of a teacher's role, position and strategy towards their practice in the classroom (Li, 2012). Beliefs are derived from teacher's classroom experiences and their practices (Dos Santos, 2018; Guskey, 2002). Therefore, we can assume that teachers have a personal understanding of their attitudes and beliefs.

Johnson's (1994) research on teachers' beliefs found three assumptions: (1) teacher beliefs influence perception and judgement; (2) beliefs impact teachers implementing new knowledge and skills into their teaching; and (3) understanding teacher beliefs are crucial for the design and implementation of professional development programmes and teacher practices. In this next section, I will discuss teachers' beliefs and their relationship to changing their practice.

Teachers change beliefs not by attending a professional development programme, but rather, by the experience of successful implementation of a new practice. Research has shown teachers change beliefs because they see and experience the new practice been implemented (Kelchtermans, 2005; Guskey, 2002; Price, 2012; Price & Collet, 2012). Guskey describes this point when teachers' attitudes and beliefs change as a positive aspect on student achievement (Guskey, 1986; 1989). Teachers' beliefs in this study are defined as a personal construct that provides understanding and reflection on implementing instructional practices while engaged in a professional learning

programme (Guskey, 2002). (Note: teachers seeing and experiencing the new practices was a key element in the Instructional Leadership Programme).

Several empirical studies have reported on the relationship between teacher beliefs and practices. Basturkmen et al.'s (2004) study explored the relationship between teacher beliefs and their implementation of communicative lessons. Their results showed some inconsistencies in teachers' stated beliefs. They found when teachers were asked about their beliefs (not using a definitive event as an example) the researcher experienced the participants theorising their understanding of their beliefs. A study by Farrell & Lim (2005) focusing on beliefs and the use of grammar instruction in two classrooms found those teachers had a set of complex beliefs that are sometimes reflected in their practices, and some are related to the context to their teaching.

A study by Rahman et al. (2019) found teachers' prior beliefs regarding English practices were not the only barrier to implementing the new curriculum. Other factors also impacted their implementation (e.g., a lack of professional development and assessment practices). Dos Santos (2018) revealed that little empirical evidence is available exploring the relationship between beliefs, practices and professional development. Dos Santos (2018) argues the interaction between the three components (beliefs, practices and professional development) is crucial as teacher professional development is designed to impact upon teachers' practices. The author calls for more research in this area. This study is intended to address some of the knowledge gaps in this area.

Keeping those four studies in mind, the relationship between beliefs and practice is not straightforward. Other factors besides beliefs and practices influence implementation. The relationship between beliefs and practices alone is not sufficient. Exploring systemic factors in the context of individual teachers, school and educational change needs to be addressed. To address this, the next section outlines the research literature around teachers' perceptions of change and is followed by understanding teachers' emotions in change.

3.5.1.3 Teachers' perceptions of change

In this study, I identify the concerns of teachers engaged in a professional development programme focused on implementing new instructional practices in their classrooms. Understanding their concerns and the assessment techniques to measure those concerns will support the design and implementation of professional development. It is necessary to understand the change process for teachers and from that to develop strategic plans that consider the personal side of the change process, resulting in efforts to implement change being more personalised and effective (Hall & Hord, 2015).

The term "concern" does not necessarily mean someone's psychological state or cognition. Regarding the personal side of change, a concern has a broader meaning. The definition of a concern in CBAM is "the composite representation of the feelings, preoccupation, thoughts and consideration given to a particular issue or task" (Hall et al., 1979, p. 5). The intensity of a concern depends on a teacher's past experiences, attitudes and prior knowledge (Buckner, 2013). It is the teacher's perception of a situation that impacts the level of the concern. We tend to have more concerns about

things we are involved in with our perceptions creating and shaping our concerns (George et al., 2006).

The idea of labelling feelings and perceptions as concerns was first described by Fuller in 1969. Fuller's study viewed change through an analysis of concerns of student teachers as they progressed through a teacher trainer programme. Fuller identified four stages of concern that student teachers experienced: *Unrelated, Self, Task* and *Impact*. The same pattern of change can be found in teachers implementing innovations in any context.

As I outlined in the Introduction chapter, organisations adopt change, but individual teachers implement change. When teachers are implementing an innovation, a specific set of concerns can be identified as implementation occurs (Hall & Hord, 2015). The concerns teachers experience is progressive and to an extent sequential (Hall et al., 2015). CBAM views change as a development process, for which Hall & Hord, (1979) outlines seven stages of concerns a teacher experience during implementation of an innovation. A detailed description of the levels and types of concerns teachers experience during implementation will be outlined in the Methodology chapter. Saunders (2013) states "understanding the development nature of concerns allows us to better understand teachers' experience of change over time" (p. 310). This is relevant for this study as it explores the affective nature of change of 15 teachers involved in a professional development programme.

Several empirical studies on the use of *Stages of Concern* (SoC) provide an insight into the use of the framework to establish the concerns of teachers while implementing an

innovation. Yuliang and Huang's (2005) study on the patterns of concerns of technology integration in the US found teacher concerns were more intense in the early stages of implementing an innovation. The findings revealed teachers adapted or looked at ways of changing their use of an innovation based on their experience. Rakes & Casey's (2002) study explored teacher concerns on their use of instructional technology in the classroom. Findings reported that the longer the teacher used the innovation the more comfortable they became with it. Atkins & Vasu's (2000) research on the use of technology in the classroom found when professional development was provided on a regular basis that teachers had an increased chance of implementing the innovation. Hargreaves et al.'s (2002) study on the use of interactive literacy techniques found the concerns of teachers around implementation did increase the levels of interactivity and questioning with students.

A study by Ward et al. (2002) on the use of the SoC to assess the progress of a mentoring programme discovered the use of the SoC allowed the researchers to understand the development needs of teachers. The findings allowed for the mentors to be paired with ideal participants to provide the most effective form of mentoring. The use of the SoC provided the teachers with an understanding of their own concerns as part of a development sequence. An Irish study on the introduction of three new curricula subjects as part of Junior Cycle reform found teachers had significant concerns several years after the introduction of the subjects. Many of the teachers made decisions early about the new subjects but little was done to alleviate their fears (Byrne & Prendergast, 2020).

The studies discussed above have used SoC to measure or evaluate teachers' responses to implementation of various innovations in various contexts. By exploring teachers' concerns in this area, it provides an understanding of teacher's feelings and perceptions in a change process. Having this insight is important as it provides knowledge on the design of professional development programmes to support the use of an innovation. It also provides teachers with a reflective tool while engaging in a change process, so they understand the nature of their concerns (George et al., 2006).

Leading on from the concerns of teachers, a current knowledge gap exists about the emotional experiences of post-primary teachers in Ireland implementing new instructional practices from a professional development programme. CBAM provides a conceptual framework and set of measures to assess affective (concerns) dimensions of the change process at an individual level (Hall & Hord, 2015). The Stages of Concern Questionnaire is designed to examine feelings and perceptions about change (Hall & Hord., 2015), it is not specifically designed to measure emotions. It is limited in terms of providing information about emotional circumstances and relationships.

As discussed above, exploring educational change is complex in nature and the use of CBAM's *Stages of Concern,* has been designed to analyse educational change, using a case study approach for this study will provide an understanding of the emotions and processes which occur with teachers' emotions and change implementing new instructional practices. The SoC framework aligns with a social constructionist view of emotions. As teachers implement change, they experience interaction with their environment and colleagues. During implementation concerns arise.

During the change process, teachers experience change and adapt to new circumstances. SoC is designed to measure teachers' feelings and perceptions during a change process, and those feelings are classified as concerns (Hall et al., 2015). Different concerns give rise to different emotions (Gioe, 2012; Horsely & Loukes-Horsley, 1998). Emotions are viewed as a product of concerns, and they are by a teacher's understanding of a situation and their context. This links with social constructionism of emotion as it aligns to an individual's interaction with their environment (Hargreaves, 2001). This will be discussed in further detail below.

The next section of the Literature Review will draw upon findings from empirical studies related to the issues above and will examine the emotional experiences of teachers and educational change.

3.5.1.4 Understanding teachers' emotions and change

As outlined in the Introduction chapter, one aim of this research is to get an understanding of the emotional experiences of teachers as they journey through a professional development programme. Many professional development programmes are designed around implementing instructional practices and changing teachers' beliefs. Some empirical studies argue teachers exhibit strong emotions when required to change their practice (Christesen & Turner, 2014; Darby, 2008; Lasky, 2005).

Schutz & Lanehart (2002) observe emotions are instinctually located in every aspect of the teaching and learning process. They argue for this reason alone that understanding emotions is crucial for the school context. Schutz et al. (2006) define emotions as "socially constructed, personally enacted ways of being that emerge from conscious

and/or unconscious judgments regarding perceived successes at attaining goals or maintaining standards or beliefs during transactions as part of social-historical contexts" (p. 344). Therefore, teachers' emotions are internalised with interactions between students, parents and colleagues (Farouk, 2012).

Empirical and theoretical studies have identified the role that emotions play in teaching, and in particular, the role emotions play in professional development (Zembylas, 2003). Educational policy or educational reform pays little attention to emotions. Instead, properties such as knowledge, skills, targets, performance and accountability are examined (Biesta, 2012).

3.5.1.4.1 Understanding teacher emotions in their context.

Emotions play an integral part of how organisations function. Given that schools are organisations rife with emotional occurrences, our ability to deal with emotions will assist us to understand and highlight teachers' reactions to change (Hargreaves, 2002). Tangentially, many researchers have sought a coherent framework to improve our understanding of the affective factors in educational change (Van Veen & Sleegers, 2009; Zembylas, 2005).

Teachers are often seen as the focal point of educational change and therefore most change efforts are directed at teachers. As reported earlier, in many cases the focus of change often relates to improving teachers' practices, which in turn, affects student achievement and learning. As teachers engage in educational change and are asked to change their practice or implement an innovation, they in turn experience emotional

reactions (Jiang, Sporte & Luppescu, 2015; Lee & Yin, 2010; Schmidt et al., 2005; Sutton & Wheatley, 2003; Zembylas, 2002).

Given that teaching is both a personal and complex process, then any change in practice results in several factors that must be considered. Teachers' emotions are one of those factors and are logically central to any change effort. One might ask why? In many cases, reform agendas require teachers to simultaneously implement several innovations (instructional, assessment, curricular, special needs practices) with those imposing those practices often not interacting with one another (e.g., the DES, support services, school administration, universities etc.) and in additions, teachers are required to work with colleagues over a period to support this. Increasing research shows the pressure to work in teams (O'Murchu & Conway, 2017; Wenger et al., 2002).

Teaching is an emotional practice and understanding teacher emotions can clarify changes in teachers' instructional practices (Hargreaves, 2002). As discussed above, teachers don't implement in isolation but work in teams in different situations over a sustained period. In most instances, teachers are mandated to change or refine their practice due to curriculum or school reform. Some teachers take it upon themselves to engage in a professional development initiative and in turn change their instructional practices away from a reform agenda (Anderson, 1997). In both cases, teachers experience emotions from a change in practices and from their interactions in their environment.

Viewing emotions as social constructions (Saunders, 2013), along with teachers' interactions with their environment helps to provide an understanding of the complex

nature of instructional change. Teachers' emotions are viewed as a social product generated by interactions with their colleagues and their environments (Schmidt et al., 2005). Four elements in this study link to teacher interactions and their contexts: (1) teachers changing their instructional practice; (2) their school context; (3) the professional development programme the teacher is engaged in and (4) the social and emotional experiences by teachers during a change process.

Applying Fullan's Theory of Change (2016) theoretical framework to this study recognises many of the above elements and will be discussed further in the Methodology chapter. The theory does have two limitations in relation to this study. First, the theory regards teachers' emotions as a motivation to change (Fullan, 2016) but does not factor in the experiences teachers feel during a change process. Second, Fullan's theory does not acknowledge teacher agency. Turner (2007) reports agency, the human capacity to make choices and meanings for one's own actions plays a crucial role in emotions. Turner (2007) supports this idea, with any investigation into teacher emotions needing to acknowledge teacher agency. Teacher agency will be discussed in further detail later in the Literature Review.

To acknowledge both of those limitations, the view of social constructionism is used as a perspective to explore teachers' emotions when they are implementing or changing instructional practices. Social Constructionism provides a framework to recognise teaching as an emotional practice, the complex nature of teacher interactions and the contexts teachers operate in. Emotions as socially constructed phenomena through interactions with others, their experiences and social structures linked to organisations and contexts (Denzin, 1984; Hargreaves, 2001, 2005; Lupton, 1998).

Social Constructionism is viewed as a "process that affects humans" (Allen, 2005 p. 35) and acknowledges the dominant belief systems individuals experience, in particular the social interactions and relationships individuals engage in (Allen, 2005). Due to the interactions and relationships, it provides a framework to understanding teachers' emotions during an education change process. Using social constructionism in this study provides an additional perspective on the experiences of teachers implementing new instructional practices. It also supplements Fullan's Theory of Change. This will be discussed in further detail in the Methodology chapter.

Lupton (1998) reviews "emotions as self-reflexive involving active perception, identification and management on the part of the individual" (p. 20). Teachers experience different emotions during a complex change initiative such as changing instructional practices. Examining those emotions and the context teachers work in provides information on the complexity of teacher change (Saunders, 2013).

3.5.1.4.2 Teacher emotions and professional development.

Many studies on emotions and teacher change focus on teachers' rejection or acceptance of change with little knowledge of the focus of a professional development programme and teacher emotions. Taking part in a professional development programme brings a unique experience for teachers and an understanding of teacher emotions is useful to guide the planning and implementation of a programme (Chen, 2016; Hargreaves, 2005; Saunders, 2013).

Teachers are attracted to professional development with an understanding that it will expand their knowledge and skills, contribute to their growth and enhance the experience for the student. Unfortunately, too many professional development programmes fail to consider teacher change even though they are designed to initiate change in teachers' beliefs, attitudes and behaviours (Guskey, 2002). The research on implementation should highlight when teachers change their practices because of a professional development programme and identify factors of a programme that have provided challenges or supported the implementation of an innovation (Saunders, 2014).

Fullan (2001) reports three dimensions of change, all of which link to professional development and have a direct impact on teacher emotions. They are: (1) the use of new or revised materials (e.g., instructional resources such as curriculum materials); (2) the use of new teaching approaches (practices, strategies or methodologies) and (3) the alternation of beliefs. Professional development agendas often connect with modifying all three above dimensions. In turn teachers engaging in professional development programme often experience strong emotional reactions (Darby, 2008). Understanding teacher emotions related to professional development can support and manage educational change along with providing an insight into the effective design of professional development programmes.

Changing teachers' practices may lead to obstacles (Tunks & Weller, 2009). As I discussed above, changing teacher practices may lead to a change in their beliefs. Professional development programmes become the sites for complex, emotionally experiences for teachers (Saunders, 2013) with beliefs impacting on emotions. Past

experiences often impact upon teacher emotions and change. This has an impact of teachers achieving of agency. Beliefs play an important role in agency (linked to change). They are the driving force or motivation in the achievement of teacher agency. Beliefs are strongly influenced by current policy and help or prevent teachers in more agentic and proactive ways they are working in (Biesta et al., 2015).

3.5.1.4.3 Classifications of emotions

Emotions can be categorised into several different areas. For this study, emotions are summarised into dichotomous categories: positive and negative emotions. Positive emotions tend to include joy, satisfaction, excitement and negative emotions include fear, anxiety, frustration and sadness (Hargreaves, 1998; Sutton et al., 2003). Hargreaves (1998) describes positive and negative emotions as "dynamic parts of ourselves and all organisations, including schools are full of them" (p. 835).

Emotions are usually discussed in the literature in terms of reform. Emotions such as feeling anxious, nervous or stressed can hinder the implementation of an innovation. Thomson and Turner's (2019) study on science teachers changing instructional practices found emotions played a crucial role in teachers changing instructional practices and triggered their thinking and implementation of their teaching practice.

In the past, teachers who resisted to implement an innovation were often viewed as traditional and not having the student's best interest at heart. Van Veen's (2005) study reported that this is not the case, and those teachers can be viewed as having a decline in enthusiasm for an innovation due to emotions such as anxiety, as well as a lack of understanding of the innovation which directly influences a teacher's capacity to adopt

an innovation. Zembylas (2005) states that teacher emotions are a product of "cultural, social and political relations" (p. 4) and that to fully understand emotions an analysis of the relationship between culture, social and political relations need to occur with context in mind. Emotions are viewed as socially constructed, products of consciousness and linked to an individual's interactions with the context they are working in (Schmidt & Datnow, 2005).

Saunders' (2014) found that teachers reported feeling anxious, nervous or stressed when implementing an innovation. The study further reported that teachers experience two emotional factors when trying to implement an innovation. First, teachers experienced emotions due to their personal use of an innovation when faced with "system blockages" from the professional development programme. System blockages came from working with a negative colleague, negative perception of an innovation inside and outside the organisation and lack of support in adopting the innovation.

These emotional responses arose from teachers being worried about what their colleagues thought about them when they were implementing the innovation, how their students' learning might be hindered, and teachers' concerns about their personal competences. The study highlighted the importance of informing teachers of emotions before starting upon the journey. Second, this study also highlighted those supportive relationships during the change process based on trust, respect and cooperation led to the momentum of change to be sustained when faced with restrictions or system blockages. The supportive relationships with colleagues encouraged a dialogue about emotions throughout the change process. Developing a shared vision allows teachers to continue with the momentum (Saunders, 2014). Acknowledging the role that

relationships play in change, emotions are interpersonal and relational (Denzin, 1984). The role of relationships will be discussed in further detail in this chapter.

The emotions that influence teachers making sense of change is required for understanding why change is a success or a failure (Schmidt et al., 2005). Educational change focuses on changing individual behaviours and largely neglects teachers' emotional responses to the change process (Saunders, 2012). Cross & Hong (2009) report when teachers are asked to change their beliefs around instructional practices this is linked to a range of emotions. Emotions are an essential part of education, especially schools. All stakeholders in a school community continuously feel many emotions (Hargreaves, 2002).

3.5.2 School level

As I outlined earlier, teachers changing their instructional practices from a professional development programme must deal with factors involving the individual teacher, the school and the system. In this section of the literature review I will start with outlining the fives phases of reform effort at school and system level. I will follow with a discussion on school context and educational change. Subsequently, I will report on the literature surrounding school culture. I will finish with a discussion on collaborative cultures in schools.

Hopkins et al. (2014) identify five phases of reform efforts at the school and system level: Phase 1, understanding the organisation culture of the school; Phase 2, action research and research initiatives at school level; Phase 3, managing change and comprehensive approaches to school reform; Phase 4, building capacity for student

learning at local level and the continuing emphasis on leadership; and Phase 5, reports how school reform efforts move towards systemic improvement.

Four of the above phases are interlinked in this study. First, a key feature of Phase 1 focuses on "the cultures of schools and the challenges inherent in change" (p. 258). This feature places emphasis on change at the school level and the approach to "humanise" the context in which the teachers and students operate. Externally imposing change upon a school places a need to focus on the school context and its needs. Second, Phase 3 involves educators "managing comprehensive changes" to school improvement and ensuring any transformation of a school will improve the experience for the student. Hopkins et al. (2014) report this can be achieved through professional development for teachers to improve their practice, in turn improving student achievement. Third, Phase 4 examines building the capacity of the teacher to improve student learning is achieved by teachers engaging in professional development. This is achieved by improving instructional practices of teachers and the development of collaborative cultures of schools through communities of practice. This phase also places a strong focus on the role of the school leader to improve student achievement. The authors outline the school leader sets the culture of the school. Fourth, phase 5, systemic improvement is viewed as "the move from individual schools to local school systems and now to nation-level systemic approaches to school improvement" (p. 269). This phase acknowledges school improvement is about school improvement in a system.

Cochran-Smith (2008) states *context has everything to do with teaching students, especially if you have a broad notion of the context, which includes the culture of the school* (p. 744). Taking Cochran-Smith's summation into account, at the school level

two areas need to be examined for teachers to change instructional practices. They are: (1) context and (2) culture.

3.5.2.1 Context

As outlined above, professional development programmes are not confined to what occurs in a workshop, they also must attend to what happens when a teacher returns to school to implement the new practice. Acknowledging the key characteristics of effective professional development is crucial as those characteristics support the factors that contribute to creating key conditions at school level to support a change initiative occurring. Many characteristics associated with theories of change point out that change is personal, unique to individuals and context specific (Fullan, 2016; George et al., 2006; Collinson et al., 2009; Hall et al., 2015; Hargreaves, 2001; Hargreaves et al., 2012). Change is more likely to be sustainable if those managing the change considers the context in which the practice takes place (Darling-Hammond & McLaughlin, 1995; Fullan, 2016,).

Acknowledging the research on the context of professional development and the context of schools is important for this study given that this multi-site case study is designed to explore teachers implementing new instructional practices from the ILP upon return to their classroom. Priestley et al. (2012) believe that change at the organisation and system level will not happen unless innovation is at the core of the change. In some cases, change at organisational level may happen when the innovation is mediated to fit the change. The context of each organisation determines change, teachers' understanding of external initiated policy, practice and process relates directly to teachers' capacity to act as agents of change.

Unfortunately, we too often ignore the obvious and forget that school context differs from school to school. What works effectively in one school may not work well in another school. Change efforts supported by professional development require support being shared among teachers and among teachers in schools to initiate and sustain implementation of an innovation more powerfully (Avalos, 2011; Datnow & Stringfield, 2000; Darling-Hammond & McLaughlin, 2011; Elmore, 2007; Fullan, 2001; Fullan & Hargreaves, 1992; Guskey, 2009; Schmidt & Datnow, 2005). As discussed earlier, national reform agendas tend to inform professional development initiatives in schools. In cases like this, teachers become the vehicle for the change initiative and the change is imposed upon them by the school or the system (Bolam et al., 2005; Priestley, et al., 2011). Clearly, school contexts become crucial in any change agenda. And logically, professional development programmes need to be tailored with a personalised approach (Bubb & Earley, 2008). As an indirect factor, in Huberman's (1988) work on the career cycle of teachers we get insights into how teachers shift their disposition towards change as their career evolves (and as they change schools). The implication is that the career 'make up' of a school will impact their approach to change and that their approach will change over time. An empirical study by Goodson et al. (2006) reports older teachers experience a sense of loss at mandated change. Educational change often fails to connect with older teachers because it dismisses their commitment and values as old-fashioned.

Concomitantly, the implementation of educational reform will struggle without planned and well implemented professional development activities designed to develop knowledge and skills. That clearly connects to research that indicates professional

development initiatives often fail to result in teacher change (Hanushek, 2005; Kennedy, 2005). The conundrum emerges that schools are under constant pressure to engage in new policy initiatives without sufficient time and support to embed new practices with innovations implemented before previous ones have been adopted (Fullan, 1999; Sahlberg, 2015). Cuban's (1998) study reports a similar view of an innovation overload in schools means many disappear without a trace. The change problem is compounded by school staff working at simultaneously implementing multiple innovations due to the relentless nature of educational change (Fullan, 2012; Guskey, 2002; Hall et al., 2004). Sahlberg (2015) agrees with this idea, schools become so concerned with innovations, the implementation is overlooked.

An Irish study that investigated the concerns of post-primary teachers towards the introduction of Junior Cycle reform found that teachers sometimes make decisions about change early in the implementation process based on limited information. The researchers of the Irish study further indicate that teachers still have concerns about innovation several years after implementation. When the concerns are not addressed, they affect the implementation process (Byrne & Prendergast, 2020). Bennett's finding in working with teachers in over thirty-five districts over a period of thirty-seven years is that concerns don't go away, they simply become more sophisticated as teachers think and act in more complex ways (Bennett, 2020).

Further supporting the previous comments, Lieberman and Miller (2001) suggest that policy makers need to understand the dynamics of the change process when they implement professional learning to support reform agendas. They argue that professional development can be best understood in terms of context, strategies and

structures; however, when planned change processes encounter significant challenges there may be disappointment as they meet relevant obstruction factors that can upset or contort the implementation of an innovation (Ellsworth, 2000; Hargreaves et al., 2012; Hargreaves, 2001).

3.5.2.2 School culture

Context also deals with the culture of the school and includes concepts such as ethos, collaboration, a readiness for change, and supportive leadership (Bolam & Weindling, 2006; NCCA, 2010). Boyd (1992) outlines culture is the point where physical or structural factors interact to make up context and that these two variables are difficult to separate in terms of individual and collective effects during a change process. Culture can be defined as

...the individually and socially constructed values, norms and beliefs about an organisation and how it should behave that can be measured only by observations of the setting using qualitative methods (Hall & Hord, 2015 p. 161)

Knowing that shared values, norms and beliefs define culture then we can be assured they are also linked to teachers' experiences of effective teacher professional development. Schools are a place where teachers experience professional development and then put their learning into practice (Fullan, 1993). Darling-Hammond et al. (2009) acknowledge the linkages between culture and teacher learning. They state "effective professional development is intensive, on-going, and connected to practice; focuses on the teaching and learning of specific academic content; is connected to other school initiatives; and builds strong working relationships among teachers" (p. 5).

Evidence from theoretical research on educational change and school improvement shows that school cultures that are open to new ideas and innovations, that support professional development and work to ease staff fears are successful in educational change (Fullan, 2007; Guskey, 2000; 2002; 2009). School improvement is not defined as introducing a single innovation but with teachers working together on initiatives that impact on the values and beliefs of teachers (Day, 2002; Fullan, 2015; Muijs et al., 2017; Stoll & Fink, 1996). With that in mind, innovations that address a need in the school may lead to school improvements (Hall et al., 2015; Hopkins et al., 1994; 2003). That includes a change/refinement of the instructional practices of teachers. Although obvious, we sometimes forget that changing a school's culture is more difficult and complex than changing school structures. As mentioned previously, it requires the development of new beliefs, values and norms. And in most cases, it increasingly involves building new conceptions about instruction (Bishop, O'Sullivan & Berryman, 2010; Guskey, 2000; Loucks-Horsley, Love, Stiles, Mundry & Hewson, 2003). In the "Global Education Reform Movement" (GERM) Sahlberg (2012) prioritises improving teachers' instructional practices which he reports will in turn have a positive effect on student learning and achievement. Improving teachers' instructional repositories is one of the most significant variables to impact upon student learning and achievement, therefore professional development is key to improving teaching and learning (Hattie, 2003; OECD, 2005). Changes such as these take time, effort and professional development programmes that are suited to the context and culture of the school and the priorities of the system (Fullan, 2002; Guskey, 2000).

Features on school culture related to leadership and teacher collaboration emerged from the research to support or hinder teachers' implementation of new practice from professional learning programmes.

1. School Leadership. There is wide belief that school leadership impacts teachers' practices arising from teachers engaged in professional development (Bolam et al., 2006; Fullan et al., 2005; Rhodes et al., 2004). Johnson and Scholes (1993) study identifies six elements of culture. The fifth element Organisation Structures refers to the hierarchy and structure design of the organisation. This element describes the influence members of the organisation have and their contribution they have to the organisation.

2. Supportive collaboration among teachers. O'Sullivan (2011) reports teachers need support and guidance to develop collaborative practices in a school. Research on school culture over the last forty years shows that organisational cultures with higher degrees of collegiality and collaboration are more effective than those cultures that are more hierarchical and less collegial and collaborative (Fullan, 2007; Hargreaves, 2001; Warren Little, 1993).

To develop this idea further, several additional factors provide challenges for teachers' when they return to school (e.g., student behaviours and attitudes, relationships with colleagues, school context and resources etc). Teachers mould their practices to suit their environment (Saunders, 2014). To support these challenges many models of professional collaboration derived from professional development such as research-based learning communities, collaborative professionalism, professional learning communities (the PLC), communities of practice and learning collaboratives have been established in schools to ensure that there is support for teachers in the implementation

of a new practice or innovation upon returning to school after a professional development programme (Cordingley et al., 2005; Cordingley et al., 2004; Doppelt et al., 2009; Gioe, 2012; Harris et al., 2019; Kruse et al., 1995; Maloney et al., 2011; Stoll et al., 2017). Teams of teachers actively engage in discussion, planning, feedback and reflection to support changing their practice (Garet et al., 2001). Collective engagement of groups of teachers from the same school have been identified as important to develop classroom practices particularly through feedback and reflection (Korthagen et al., 2006; Van den Bergh et al., 2014).

3.5.2.2.2 School leadership and educational change

The actions of leaders are crucial to successful change efforts (Hall & Hord, 2015). In this next section, I examine the role a school leader plays in teachers implementing innovations in their classrooms. I will start by examining the literature around school leaders supporting teachers implementing new changes. And I will follow that with an examination of teachers as leaders to support change.

A great deal of research has been carried out to explore the role of a school leader in supporting teacher change. King (2011) argues the role of school leadership determines the success or failure of implementation of a new instructional practice from a professional development programme and whether it is embedded and sustained. One key finding from this study is the school leader creating the conditions and the culture for collaborative learning to enable teachers to enhance their skills and practices. Leithwood and colleagues (2009) in their ten-year study in three countries found that the second most powerful predictor of student achievement is the extent to which the leader supports teachers becoming more instructionally competent. They could not find

one example of a less effective school being turned around by anything less than a highly competent school leader.

Studies from Hallinger et al. (1996) and Hallinger & Heck (1998) support the idea of principals' instructional leadership having potential to enhance student learning through their impact on teacher improvement, collaboration and innovation on teaching and learning. Robinson (2011) explains when the principal is involved in leading teacher learning and development it has an impact on both the teachers and their own individual learning. The principal's instructional leadership has a significant effect on student achievement. A study by Louis and Miles (1990) found that after five years of 'effort' only two out of five ineffective schools were successful in improving instruction and creating safe learning environments. The study outlined that changing teachers' practice created more conflict than any other school initiative. A two-year study of nine primary schools in the US found that principal leadership improves student achievement and teachers' knowledge and skills through professional development (Newman et al., 2000).

School leaders play a crucial role in professional development. School leaders experience difficulty in supporting instructional change if they themselves are do not understand the new innovation. The efforts of leaders to plan, reflect and implement innovation from professional development will provide sustainable professional learning for teachers (Guskey, 2009; Goddard et al., 2018; May et al., 2011; Ringler et al., 2013; Sharp et al., 2020). School leadership has a responsibility to create a culture which focuses on effective pedagogy (MacRuairc, 2016). Principals involved in school-

based instruction reform have a high impact on student learning (Leithwood & Seashore-Louis, 2011).

As outlined earlier, change is complex and understanding the change process is less about the innovation and more about the process of implementing change (Anderson, 1997; Fullan, 2007; Fullan et al., 2009; Poole et al., 2004). Given that complexity, school leaders must understand the change process to more effectively lead and support change (Fullan, 2007). School leaders need to recognise emotions in teachers and manage emotions during times of change (Day et al., 2000; Leithwood et al., 2007; Sun et al., 2015). Supportive relationships during the change process based on trust, respect and cooperation will lead to the momentum of change to sustain when faced with restrictions. Having school leaders and teachers develop a shared vision will support teachers to continue with change momentum (Saunders, 2012). Professional development that encourages reflection and networking and is guided by research is more likely to support principals [and teachers] in developing an instructional leadership culture in their school (Brauckmann et al., 2020; Gumus & Bellibas, 2016; Gray et al., 2018).

Spillane (2006) argues that a direct link exists between leadership and instruction. Leadership practices, in this instance, impact upon the instructional practices of teachers and student achievement. Spillane further observes a distributed approach to supporting staff has a positive effect on both practice and student achievement. This approach has an influence on teacher agency and supports teachers as change agents (Harris & DeFlaminis, 2016; King, 2017). Acknowledging teachers as change agents Harris and Jones (2019a) report teacher leadership has three dimensions. First,

influence. the teacher has no formal role or responsibility. Second, action. The teacher sharing their instructional practice and to indicate change and third, developing pedagogical excellence. The teacher develops their instructional practice and influence others to develop their instructional practice. Many studies report the importance of teacher leadership as influence and agency. Priestly and Sime (2005) found that with the support of the school leadership teachers successfully led an AfL initiative and shared their practice with others. Priestley et al. (2011) further emphasises teachers deal with change when trust, autonomy, innovation and risk taking are facilitated by the school.

Leaders need to respect the implementation dip; all change processes in education experience a dip during change (Fullan, 2001). The implementation dip is "a dip in performance and confidence as one encounters an innovation that requires new skills and new understandings" (Fullan, 2007, p. 40). Leaders who understand the implementation dip know that there are two challenges when they are in the dip- fear of change and lack of skills to make the change work. Fullan further acknowledges that leaders who are aware and sensitive to the dip are more likely to keep the organisation going during a change process.

3.5.2.2.3 Collaborative cultures and educational change

Warren-Little (2002) research identifies collaboration is an important factor to improving instructional practices of teachers. Connected to Warren-Little's research, Borko's (2004) research shows that developing strong collaborative cultures in a school "can foster teacher learning and instructional improvement" (p. 6). Collaborative cultures provide an area for teachers to share practices with others (Goos et al., 2007)

and a study by Rosenholz (1989) shows that teachers working together to support their professional learning manifested in increased teacher efficacy. Dufour et al. (2012) support this idea; they reveal a systematic process is needed in schools for teachers to work together, interdependently, to analyse and impact professional practice in order to improve individual and collective results.

Research is repeatedly reporting collaborative relationships as a major factor in school improvement and reform (Hubbard et al., 2006; Horn & Warren-Little, 2010; Warren-Little, 1982). Placier & Hamilton (1994) describe relationships in schools as complex due to the number of features that need to be in place to support teachers during a change initiative. For example, teachers need the autonomy to change their practice. This aligns with teacher agency and will be discussed further in the Literature Review. As well, motivation to change needs to be supported by the school culture and collegially among staff. Hall and Hord (2015) agree with Placier and Hamilton (1994) and report a challenge for school improvement at school and system level is to encourage teachers to motivate themselves and others to change their practices. The context of the school along with sustaining collaborative relationships is crucial for motivating teachers and sustaining change.

A study by Kruse et al. (1995) supports the idea of collegially among staff to improve student learning. They believe attention to teacher relationships is vital to promoting openness, reflection and collaboration. This is supported by Stoll et al., (2006) and Park et al., (2019). Ferrier-Kerr et al. (2009) report that positive relationships among teachers develops the right atmosphere for reflective learning to occur within a professional learning context. A strong collegial relationship among teachers develops a community

of learning which leads to sharing of practices between teachers. This in turn leads to effective professional learning occurring in a school among teachers (Smith, 2015). A collegial relationship supports teachers to move from individual professionalism to collective professionalism and to work interdependently rather than independently (Harris & Jones, 2010).

Providing teachers with a context to support a change in their practice through professional learning and nurturing those positive collegial relationships has an influence on student achievement (Darling-Hammond, 1996; Lieberman, 1995). Developing the collegial relationship between school leaders and teachers and among teachers themselves creates a culture for education change (Hargreaves, 1997). Hall & Hord, (2015) state that

[o]rganisations adopt change; individuals implement change, and the organisational culture influences the work of individuals. Therefore, organisations must value and support individuals in change efforts. Leadership for change facilitation is shared among all participants in such a context as a PLC (p. 164).

The concept of *communities of practice* and *professional learning communities* emerged from Lave & Wenger's (1991) study as a concept that supports collective engagement in learning among individuals in the practice community. Wenger et al. (2002) define communities of practice as "groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis" (p. 4). In communities of practice, teachers take responsibility for their own learning, implementing new strategies, sharing and improving upon these strategies. They have both a positive outcome for

teachers and students because they provide safety for teachers to improve upon their practice in collaboration with their colleagues which in turn has a positive outcome for student learning (Hord, 1997).

Wenger et al.'s (2002) community of practice model provides a structure of creating and sharing knowledge with all three characteristics required to develop a community practice. Community practices range from small-scale groups with organisations to large-scale groups within the system. They can also range from informal groups to large formal groups with financial support (Hall & Hord, 2015; Lave & Wenger, 1991; Wenger 1998). Wenger et al. (2002) model has several elements to support practitioners improving their knowledge and expertise around instruction. First, membership of the organisation can be self-selected or assigned by the organisation. The membership can be based on a topic of interest to the practitioners.

Second, the role of school leaders is crucial for establishing the community of practice; they have a key role to play in building the community (Dufour & Dufour, 2012). Wenger et al., add that the leadership role can be formal and informal with teachers assuming a more informal role to support change). Principals can use the communities of practice to further support teachers to develop their autonomy in implementing new practices. Teachers have a desire to sustain and share practice from professional development and this empowers teachers to create collaborative cultures (King, 2011). Evidence from theoretical and empirical research indicates that communities of practice serve to support teachers with change from below or "bottom up" change (Hargreaves & Fullan, 2015; Hargreaves et al., 2012; King, 2019). Fullan (1994) believes neither

"bottom up" or "top down" strategies are effective but a mix of the two are required as a mix of the two are required for sustaining long term change.

Third, those in the organisation value knowledge sharing and innovation. Hargreaves & Shirley (2012) report that all teachers have the collective responsibility to improve the learning experiences of their students. They describe social capital as the expertise knowledge teachers acquire through networks of learning, ongoing professional learning, sharing of practice and strong collegial relationships. This social capital can be achieved by strong communities of practice sharing knowledge and innovation.

3.5.3 Educational change

The purpose of this section is to discuss the relevant literature on educational change research. I will begin with a discussion on educational research, and I will finish by outlining theories of educational change.

Political, economic and cultural consideration play a role in educational change. A cautionary note needs to be addressed. Educational change is a complex process and a thorough examination of the purpose of the change needs to be accounted for. Teacher professional development is seen as a complex system rather than a single event of changing teachers' instructional practices (Hall and Hord, 2015; Opfer and Pedder, 2011; Rogers, 2003). With that, researching educational needs to explore the various contexts that operate during the process (Hargreaves et al., 2012).

Connecting to the above information, Fullan (2016) shares his three dimensions to educational change: (1) the use of new materials such as curriculum, (2) the use of new

instructional practices and (3) a change in beliefs, challenging existing thinking and assumptions. Fullan summarise all three aspects of change are necessary to achieve a particular goal which links to Smith et al. (1991) elements for change. Saunders (2012) believes that any change initiative is linked to all three of Fullan's dimensions as each dimension is linked strongly with teaching and learning. This research study is grounded in one of these goals, the use of new instructional practices.

Guskey's (2002) "Model of Teacher Change" reports an alternative approach to professional development based on research and theory. This model highlights that change in teachers' classroom practices happens once they experience improvements in student learning and in turn leads to a change in teachers' attitudes and beliefs. This model highlights that teacher change is complex. Guskey outlines that his model can facilitate change and make professional development programmes more effective and more powerful. Guskey's model of teacher change has drawn criticism since it portrays teacher transformation as a straightforward and linear process and fails to adequately depict the process of teacher development (Clarke & Hollingsworth, 2002). Based on Clarke & Hollingsworth, the claim that very little changes in teachers' attitudes and beliefs until teachers have acknowledged a change in students' learning outcomes.

Birman et al. (2000) see it a bit differently. They argued that teachers whose professional development includes experiencing the innovation in the form of active learning methodologies increased their skill and knowledge. By experiencing the active strategies teachers can get a better understanding of the innovation and are able to implement it into their practice.

Fullan's Four Drivers of Change (2011) examined change in three countries (Australia, England, and the United States). The study focused on districts choosing the wrong drivers for systemic educational change. The four wrong drivers are: 1) accountability; 2) individual quality; 3) technology; 4) fragmented. The study acknowledges systemic change requires the following: 1) the need to build capacity instead of accountability; 2) the desire to work collaboratively as opposed to working as an individual; 3) the need to focus on instruction and 4) the need to make change systematically instead of fragmented. Fullan's study claimed engaging teachers in improvements in instruction along with supporting an individual and collective intrinsic motivation will drive educational change in systems.

Schmidt et al. (2005) and Fullan (2011) argue that professional development must change the instructional practices of all teachers within a system; not just a few. Changing teacher practice throughout a system is a difficult process and over time will require a shift in values and beliefs. Those changes will also affect and be affected by school and organizational culture that will require time, effort and support from all in the organisation (Guskey, 2000; Hall & Hord, 2015).

Leading on from Fullan's Four Drivers of Change, Fullan's (2016) theoretical framework on change theory, as outlined in chapter one describes the three evolving phases of change. First, initiation, the decision made prior to starting. Second, implementation, are the actions taken once the decision has been made to start and third, continuation, are actions taken to embed and build internal capacity to only sustain but respond to the never ending cycle of educational change. Fullan describes key factors in each phase to support the change of implementing the innovation. Fullan's Theory

of Change is used as the theoretical framework for this study and the study is grounded the first two phases.

3.6 Teacher agency

This research focuses on teachers experience of change along with the factors to support or hinder teachers implementing instructional practices from a professional development programme. Educational change in this context is both subjective and personal. Teacher agency is shaped by the cultural and structural content of schools (Datnow et al., 2002) and the professional development programme. This section of the literature review explores how professional development aligns with teacher agency. Acknowledging the considerable body of research literature published on teacher agency it is beyond the scope of this study to review all aspects of agency. First, I will provide a definition of teacher agency that aligns to this study. I will follow with a discussion on agency and the personal side of change and I will finish with a discussion on context and agency.

The following definition has been selected for the purpose of this study as it aligns with teachers engaging in professional development. Agency is viewed as a personal quality within people and is influenced by our past experiences, present situation and our vision for the future (Biesta et al., 2015). With this definition in mind, teacher agency in this study is the ability of teachers to take intentional, helpful action to further their own professional development and that of their colleagues. Teachers who have agency recognise their role in their professional growth and actively choose what they learn to accomplish their goals, as opposed to passively responding to learning opportunities (Imants et al., 2020). This also relates to school context. Agency is practiced when

individuals or groups of teachers make choices and take stances in ways that affect their work (Ethelapelto et al., 2013).

Imants & Van der Wal (2020) describes five characteristics of teacher agency in professional development. First, the role of individuals; the teacher is an active participant in professional development. Second, the characteristics of the relationship in the model; teachers' relationships are active in the change process. Third, the complexity of levels in the work context; the characteristics of the working environment. Fourth, the position of the content of professional development and school reform; the goals, intentions, methods and strategies of professional development. Content is a variable entity that is subject to teacher enactment. Fifth, the role outcomes of professional development and school reform; the result of professional development is not linear. Teachers gauge the successor of the innovation based on efficacy of work and student achievement. These characteristics of teacher agency in professional development align with Guskey's (2009) goals for professional development and Fullan's (2016) three dimensions to educational change. All three models agree to two elements in the change process: 1) a change in belief, attitudes and values, and 2) a change in instructional practices.

I outlined earlier in this chapter that teachers engaging in professional development improves teachers' instructional practices and student achievement. Teachers' motivation to engage in professional development with the goal to improve their practices determines agency (Archer, 2000). Several empirical studies report teachers engage in a significant amount of time participating in professional development with large budgets of money spent on these professional development programmes

(Cumming, 2002; Molla et al., 2020). Following on from this. the research also indicates that in some cases teachers feel the time and money spent on these programmes has been a waste. The perception of wasted time leads to teachers being less disposed to attending professional development programmes impacting upon beliefs and agency (Calvert, 2016; Smylie, 1989).

3.6.1 The personal side of change

Teacher agency includes personal capacity such as knowledge and skills, beliefs which are personal, professional and values. Those attributes of teacher agency are grounded in the understanding that past experiences have a role in shaping the views and beliefs of educational change. In terms of agency and professional development, a focus on resource building and reflective engagement when implementing change is essential. Professional development agendas should focus on interrupting habitual and socially reinforced ways of teachers' experiences of change with an innovation (Priestley et al., 2015).

As outlined earlier, one goal of professional development is to change beliefs, attitudes and values of teachers (Guskey, 2009). Beliefs play an important role in agency. They are the driving force or motivation in the achievement of agency. Beliefs are strongly influenced by current policy and help or prevent teachers in more agentic and proactive ways they are working in (Priestley et al., 2015). Biesta et al. (2015) observe agency is achieved "from complex interplay of individual capacity and collective cultures and structures" (p. 52) and this is achieved through ongoing professional development throughout a teacher's career. The belief of using a new instructional practice will help teachers to take the necessary actions to influence student achievement. (Le Fevre et

al., 2020). Imants & Van der Wal (2020) observe as part of professional development, schools try to engage teachers to change beliefs, knowledge and values to improve classroom practices.

3.6.2 Context and agency

Teacher agency interlinks into two contexts in this study: the school and the professional development programme. Returning to school context, understanding how teachers enact new practices from a professional development programme cannot be understood without acknowledging teachers' interactions with their working environment. The enactment of new practices is primarily located in the teachers own sphere of influence. This is in the interactions where they practice their agency (Imants et al., 2020).

Three factors are important to motivate teachers to undertake a programme of change and align with school context: (1) dialogue with colleagues, (2) exposure to school culture, and (3) engaging in ongoing professional development. Teachers who experience an exposure to an innovation in their school are more likely to embrace an innovation than a teacher working in a less innovative school. While teachers may be placed in a situation where they have strong educational capacity and aspirations, innovation may be too difficult to enact. In cases like this, it may be implied "capacity building" is misleading as capacity building suggests teacher agency lies with their capacity rather than their ambition to be involved in implementing educational change (Priestley et al., 2015).

Fullan (2003) reports teachers are the agents of change at the school level, by supporting the implementation of innovation and the development of curriculum. The motivation of teachers as change agents can have an impact on their instructional practices and in turn can impact student achievement.

In many school contexts, teachers display attributes and commitment for reliance to be placed upon them. Many teachers are open to difficulties when they arise and develop a problem solving approach to improve instructional practices and student achievement (Hargreaves et al., 2012). Bandura (2001) acknowledges agency allows teachers to influence their own and others' experiences, allowing agency to be personal or collective. The personal is individual driven while collective agency occurs through coordinated actions of groups. Arising from this idea and discussed earlier, communities of practices (formal and informal) support the collective capacity of teachers and improvements in student achievements. The social capital teachers experience through shared professional development experiences in these collaborative cultures underpin the self-efficacy or beliefs of teachers and affords teachers the power to gain results in change in practice or student achievement (Bandura, 2001; Hargreaves et al., 2012).

Imants et al. (2020) argues teachers have an active and agentic role to play in professional development and school improvement. Teacher agency is in "multi-faceted and multi-level work environments" (p. 2). The teacher engages in the professional development programme, returns to class to transfer the learning into practice. Acknowledging the complexity of the transfer of learning from the workshop to the classroom (Joyce et al., 1982; 2002a; 2002b; Shulman & Shulman, 2004) the

autonomy of the teacher to contribute to implementation of new practices is crucial for implementation.

3.7 Conclusion

The literature outlines professional development is an integral part of teaching. This literature review reports on five broad areas that inform teachers engaging in professional development and the impact both on their practices and beliefs. This review highlights the importance of well-designed professional development incorporating effective characteristics of professional development. With those effective characteristics in mind, professional development needs to adapt and contextualise for the contexts it operates in to support teachers to change their practice and beliefs.

Understanding the dynamics of implementation at school level, the factors teachers experience such as the role of leadership and collaboration are pivotal in supporting teachers with change at school level. Ensuring teachers collaborate is difficult and the role of a school leaders who understands the knowledge of the change will support with implementation. Acknowledging both those systemic factors at school level, professional development is a complex system of events rather than a single event impacting upon teachers' practice.

The review acknowledges the complex nature of the personal/affective side of change. Teachers changing practices from a professional development programme experience both concerns and emotions. They play a crucial role in teachers' decisions to adopt or reject implementation of new instruction practices. The role of school leadership and

collaboration at school level can address the affective nature of change if they meet the need of the teacher. Teacher agency play a crucial role in teachers adopting any form of change. Teachers having the support of leadership along with a "bottom approach" to adopt the innovation to suit the context is crucial for the adoption of the innovation.

Research aims

In seeking to address the research gap of teacher change from a professional development programme in Ireland, a multi-site case was used to better understand this complex area of educational change. Specifically, this research focused on two aims:

1. To understand the experiences of teachers changing their instructional practices from the Instructional Leadership Programme.

2. To understand the influence of school context on teachers implementing instructional practices.

There is a knowledge gap in the literature on the teachers experience of change. This study seeks to address the gap in Ireland on the impact of professional development on teachers' practices and teachers' experiences of implementation in the classroom.

There is a contested idea that better professional development leads to better teachers, and in turn better learning experiences for students. There is considerable investment at policy level by the Department of Education with support services such as PDST, JCT and others. Now managerial bodies such as the NAPD and ETBI are investing in bringing in programmes from outside Ireland such as Magenta Principles and the ILP and there is a lack of research of these programmes. This research seeks to address this gap by providing new knowledge in the following three areas.

First, there is a gap in the research of the experiences of teachers including the personal side of change. Much has been written about the process of educational change but there remains a substantial gap in understanding the personal, affective dimensions of the experience such as concerns and emotions. This study will address the experiences of fifteen teachers from five schools.

Second, the context in which professional development takes place plays a significant role in teachers transferring their learning from the workshop to the classroom. This study seeks to understand how a professional development programme supports teachers' learning and implementation.

Third, school context plays an important role in supporting teachers with implementation. In particular, the role of school leadership and collaborative cultures. This study will report on this knowledge gap by exploring the experiences of fifteen teachers from five schools.

Chapter 4. Methodology

A multi-site case study approach was used to carry out this study, which sought to:

1. To understand the experiences of teachers changing their instructional practices from a professional development programme.

2. To understand the influence of school context on teachers implementing instructional practices.

This chapter outlines my philosophical approach that influenced the research design of this study. In this section, I describe the epistemological and ontological views that influenced the methodology. I follow this with a summary of the theoretical and conceptual framework used in this study. Subsequently, I explore the research design, followed by the methodological approach to the research, to sampling procedures, data collection methods and ethical issues relating to the study. Finally, I outline the data analysis methods and procedures that are also used in this study.

4. 1 Philosophical approach

Outlining the philosophical approach used in this research supports the critical evaluation of the study. Providing the background on the ontology and epistemology assumptions that inform the paradigm are pivotal to understanding the contextual framework supported in the research (Harris, 2000). Epistemological and ontological stances influence the philosophical paradigm that inform research (Gray, 2004).

Exploring such paradigms provides perspectives upon the methodology (Cohen et al., 2011).

Ontology deals with the social phenomenon investigated in the research (Cohen et al., 2011). The ontological stance of the researcher needs to be outlined so subsequent foundational claims of validity can be argued as trustworthy (Denzin, 1997). Epistemological assumptions are concerned with "the very bases of knowledge, its nature and forms, how it can be acquired, and how it is communicated to human beings" (Cohen et al., 2011, p. 6). Developing an epistemological stance outlines the objective, subjective or intersubjective theories that support knowledge construction (Davidson, 2001). Epistemology is therefore open to objectivity or subjectivity (Morrison, 2002).

The philosophical approach underpinning this study (figure 4.1) illustrates the interconnections of my position and beliefs, the research design and the research methods (Creswell et al., 2018).

Figure 4.1 Philosophical approach underpinning this study

Social Constructionism (Ontology)	Interpretivism (Epistemology)
Case Study Approach (Methodology)	Stages of Concern Questionnaire / Semi-structured interviews / Use of documents (Methods)

(centre label: Philosophical Approach)
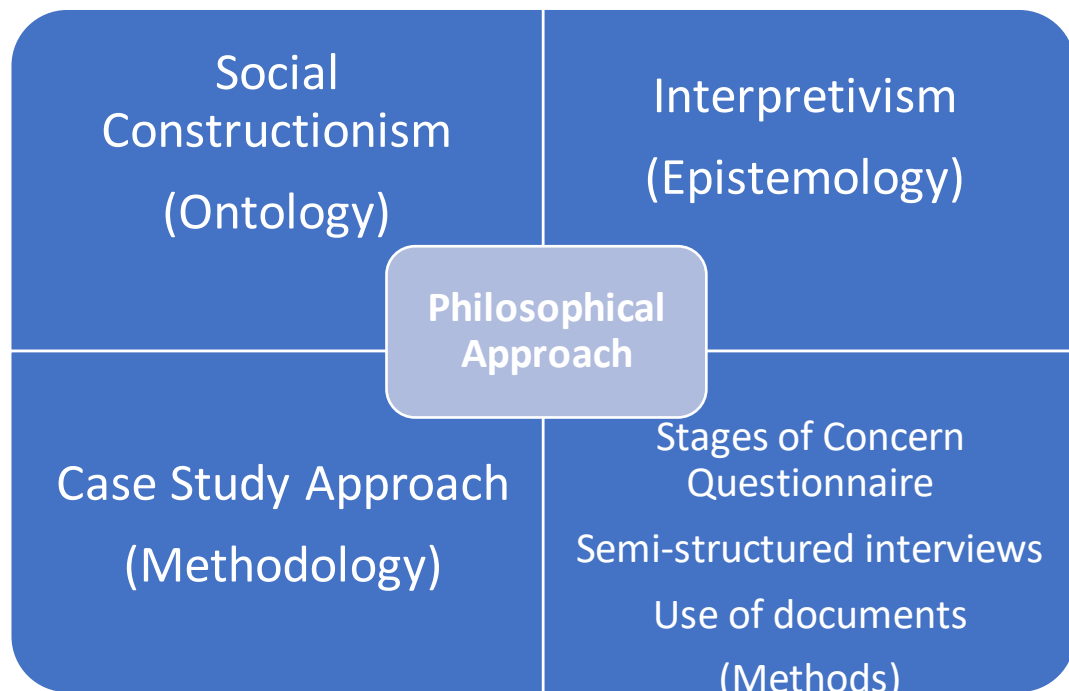
My ontology approach is social constructionism. Social constructionism has its roots in social phenomenology and interactionism, it is an approach for investigating how people actively participate in their experience of reality and self-construction through social relationships (Denzin 1984). My epistemology approach is interpretivism. Interpretivism reports a perception of reality is shaped by our experiences and interactions with others (Creswell, 2018). The research methodology and methods used in this study incorporate a case study approach using mixed multiple data collection tools to address the research question.

Ontology- Social constructionism

Social Constructionism was used as a lens to explore teachers' experiences of implementing new or revised instructional practices into their classroom. Teachers experience concerns, feelings and emotions during any period of educational change.

The process of change is complex and teachers do not implement change alone, but rather collaborate with colleagues, students and school leaders in a variety of contexts and over a sustained duration of time. Examining those elements helps us to understand the emotions teachers have at different times, with different individuals, during different periods of change and help to look for patterns. Seeing emotions as social constructions allows us to better respect and understand the complex nature of instructional change (Denzin 1984; Fineman 1993; Hargreaves 2001; Lord and Harvey 2002).

This multi-site case study explores teachers' concerns and emotions of refining their instructional practices from a professional development programme. In the Literature Review I outlined how the perspective of social constructionism is used in this study to examine teachers' experiences of change. Fullan's Theory of Change as a theoretical framework has two limitations and I discussed them earlier in the Literature Review Chapter. A reminder of those two limitations. First, Fullan's Theory of Change regards teachers' emotions as a motivation to change (Fullan, 2016) but does not factor in teachers' feelings during the change process. Second, Fullan's theory does not acknowledge teacher agency. Any investigation into teacher emotions needs to acknowledge teacher agency (Tsany & Turner, 2017).

Crotty (1998) identifies three assumptions of social constructionism that link to this research. First, individuals construct meaning as they engage with the world they are interpreting. The participants in this research report their personal experiences of implementing instructional practices from a professional development programme. They outline the concerns and emotions from the world they are interpreting. Second,

individuals engage with their world and make sense of it based on their social perspectives. The contexts the participants operate in are explored in this study. As I discussed in the Literature Review, a focus on the individual teacher, the school they work in and the professional development programme they engaged in are explored. A caveat to this, the interpretation can be shaped by the researcher's own experience and background. Third, social constructionism meaning is always social, arising from interaction with others. Teachers' relationships and collaboration are explored in this study when they return to school to implement the new instructional practices.

The ontological basis for this study relates to the social reality of teachers engaging in a professional development programme and returning to their classroom to implement new practices. In the Literature Review chapter, I discussed educational change, this is both subjective and personal with teachers using their agency to navigate and negotiate structure and culture of schools during professional development (Datnow et al., 2002). Agency is a personal quality and is influenced by past experiences, a teacher's present experience and the vision for the future (Biesta, 2011). Teachers have the capacity and the ability to bring change despite the factors surrounding school context that may prevent them from successfully implementing change. There are strong links of the ontological and epistemological approach to this study linking to the personal side of change therefore impacting upon teacher agency.

Epistemology - interpretivism

Social constructionism shares the view of interpretivism. Both explore the concept of meaning created and negotiated with individuals outlining their understanding of a lived experience. Social constructionism is also distinctive from interpretivism as

individuals construct meaning as they engage with the world they are interpreting (Bastalick, 2020; Creswell et al., 2018; Crotty, 1998).

An interpretivist stance was adopted because it proposes there is no objective reality, but rather our perception of reality is shaped by our experiences and interactions with others (Guba & Lincoln, 2000; Walsham, 1995). An interpretivist paradigm focuses on social agency and is concerned with how people interrelate and interact in society. Hesse-Biber & Leavy (2010) report human interactions are contributing to the construction of the social world. The interpretive paradigm describes realities as interwoven by our senses, with individuals constructing as many realities as there are individuals (Scotland, 2012). This view aligns with the teachers' experience of change discussed in the Literature Review chapter.

I view those social interactions (Hesse-Biber & Leavy, 2010) as the primary source of obtaining meaning about reality from teachers implementing new instructional practices from the ILP. As a previous graduate of the programme, I was aware of the personal experience's teachers have of undertaking the programme along with their personal journey of working with colleagues upon return to their school. With this in mind, I have preconceived ideas about the implementation of new practices based upon my experience as a teacher. Using reflexivity, I will discuss later in this chapter, it supported me to think and reflect upon the stories and experiences the participants shared in their interviews.

As a Deputy Principal in a school with four participants from this study, I was conscious of the experiences the teachers had of the programme. During data collection I was

mindful of the data and its interpretation. I shared the transcripts of the interviews with the participants and asked them to ensure they were happy with their interpretation of their interview. I practiced reflexivity and discussed the data in detail with my critical friend to ensure there was no bias.

I have outlined a number of elements I bring to this study as an interpretive researcher. I believe due to my position in this study, I bring an increased credibility to the findings and further deepen the understanding of the work (Creswell et al., 2018). The research design of a multi-site case study approach further tells the stories of the participants in this study. In this next section I will discuss the research design in detail.

4.2 Theoretical and conceptual framework for educational change

Educational change theories offer a paradigm for the study of the change process for teachers implementing innovations learned from professional development programmes. This study explores the factors (around school and professional development programme context) that support or hinder teachers implementing instructional practices from a professional development programme. The notable lack of research on teachers' experiences (concerns and attitudes) during implementation frame the broader context of this study. Understanding those elements regarding innovation implementation is important for understanding implementation of instructional practices (Hall, George & Rutherford, 1979).

The Theoretical Framework this research is grounded in is Fullan's Theory of Change (Fullan, 2016). I outlined in the Literature Review chapter, professional development can lead teachers to change their practices, beliefs, knowledge, skills and the revised

use of new materials in their classrooms (Fullan, 2016; Guskey, 2002; Hargreaves & Fullan, 1992). Applying Fullan's change theory as the framework is central to providing an understanding of why teachers choose or refuse to implement new instructional practices.

Leading from this, the Concern Based Adoption Model (CBAM) is the conceptual framework used in this study. CBAM also provides a perspective on how an individual's concerns influence integration of an innovation. CBAM addresses the concerns of teachers from a developmental perspective as CBAM is a "key dimension of the process, content, and support for teacher implementation of changes and instruction" (Anderson, 1997 pp. 338). It provides information on how teachers will adapt to change and provides a framework to anticipate future needs (Hall & Hord, 2006).

CBAM has three components, Stages of Concern (SoC), Levels of Use (LoU) and Innovation Configuration (IC) (Hall et al., 2015). Stages of Concern, the first dimension of CBAM, focuses on how teachers are concerned about the change process. Levels of Use assess the ways in which the individuals put the innovation from professional development into practice. Innovation Configurations describes the various forms of an innovation that teachers use (Hall & Hord, 2015). For this research the Stages of Concern Questionnaire was used to explore teachers' concerns of implementing an innovation.

Straub (2009) argues that two questions must be addressed in the context of implementation. First, "Why does an individual choose to adopt an innovation while

another resists? And second, "What is the influence of social context on the decision to adopt?" Both questions are relevant to this research. First, they frame teachers implementing or not instructional practices from a professional development programme. Second, teachers' experiences and the contexts they operate within impact on their decision to implement.

4.2.1 Fullan's theory of change

Change is complex and understanding the change process is less about the innovation and more about the process of implementing change (Fullan, 2007). Fullan (2003) suggests that teachers are the agents of change at the school level; they support the implementation of innovation and development of curriculum.

Fullan (2016) theory (figure 4.2) has identified three broad phases in the change process. These phases are not linear but rather interactive and require feedback and decision at each phase.

- Phase I Initiation. This is the period leading up to the change and includes a decision to adopt or proceed with a change.

- Phase II Implementation. This involves the first experiences of putting the change into practice.

- Phase III Continuation. This involves sustaining the change after the implementation. At this stage the change may be ongoing, discarded or need further attention.

Figure 4.2 Fullan's change process
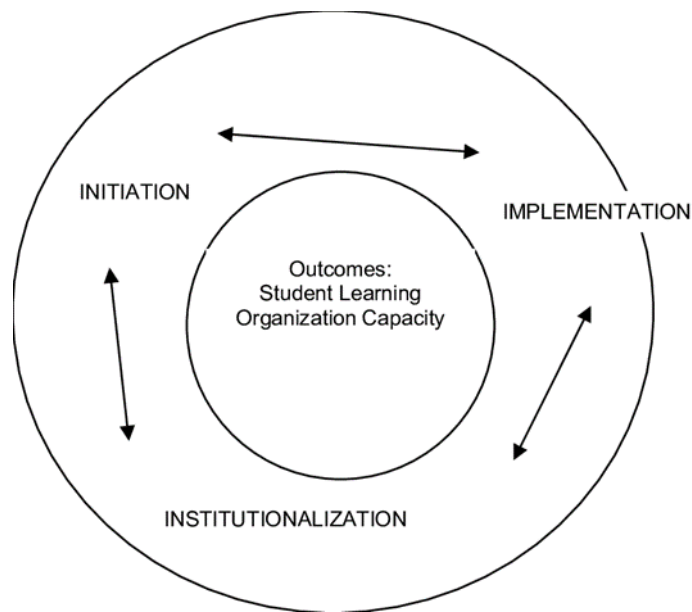
Note: This illustrates the relationship between Fullan's phases of change (Fullan, 2016).

This study seeks to utilise phase I and II of Fullan's theoretical framework. In this next section, I will outline how the theoretical framework aligns with this study.

4.2.2 Phase II- Factors affecting implementation

"Implementation consists of the process of putting into practice an idea, programme, or set of activities and structures new to the people attempting or expected to change (Fullan, 2016 p. 67). Fullan (1992) believes it is crucial to examine factors affecting implementation as they focus on attributes of implementation. He describes two reasons for the need for this focus: (1) change needs to be measured to determine if change has occurred and (2) by examining innovation implementation we can gage innovation failure.

Fullan's theory reports there is a set of factors (figure 4.3) influencing implementation that can't be viewed in isolation for success to be achieved. The factors are central to the implementation process and fall into three broad categories:

(A) Characteristics of change

(B) Local characteristics

(C) External factors

Figure 4.3 Interactive factors affecting implementation
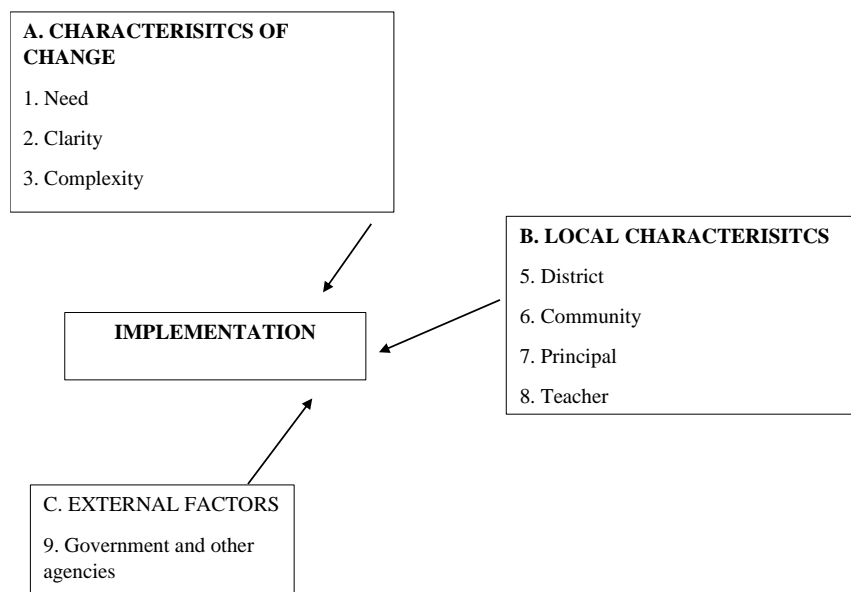
(Note. Adapted from Fullan, M. (2016). The new meaning of educational change)

Fullan views collaborative working practices amongst the implementation practitioners as essential to any success. Fullan believes that implementation is dependent on both internal and external factors working together in a consistent and focused way in which all participants have a say. So in the context of implementation, it is recognised that in order for it to be applicable, change has to be needed, have clarity, be accessible to the

change and have quality in its substance (adequate resourcing, time allowed and development of the programme).

4.2.3 Fullan's perspective and its influence on this research study

Fullan's (2016) theory places the teacher at the centre of the change focus. This resonates with the research question for this study. A reminder of the research question for this study:

What are the factors that enable or hinder teachers changing instructional practise from a professional development programme?

Sub questions related to the main research question include:
1. What are the experiences of teachers implementing new instructional practices?
2. How does school context support teachers' change their instructional practices?

Fullan acknowledges the importance of local capacity in terms of the development of a change initiative. This is in keeping with the philosophy of this research as the study explores if school context supports or hinders teachers implementing new instructional practices. Also, two local characteristics in this framework align with this study: (1) the teacher and (2) the principal.

Teachers play a crucial role in change. Educational change depends solely on what teachers think and do about implementing an innovation (Fullan, 2016). Teachers play an active role in any educational change initiative with professional learning as a focus of the innovation implementation. The professional learning experience can determine

the success or the failure of the initiative (Fullan, 2011). Success or failure of implementation is measured in terms of teachers changing their practices, beliefs, use of new material in the direction of change. Fullan (2016) identified four questions teachers should consider before accepting or rejecting a change initiative:

1. Is there a need for the change that is being proposed? And if so, has this initiative been successful elsewhere?

2. Is school leadership supportive of the initiative?

3. What collaborative support will be available to support implementation of the innovation?

4. Are colleagues going to implement or reject the innovation?

Although teachers are crucial to the change process, we must also examine the other stakeholders in any change process. This study aligns with the research on the role of the school principal (Leithwood et al., 2009). A change in instructional practices has the biggest impact on student learning and the role of the principal is to mediate and manage the needs of the teachers while balancing the needs of other stakeholders during this process. The principal needs to build the three interrelated components of professional capital in a school, human, social and decisional (Fullan, 2014). At the core of this is the principal as an instructional leader, leading learning towards a collaborative culture of sharing best practice among teachers.

4.2.4 The concern based adoption model (CBAM)

This study explores the experiences of fifteen teachers implementing instructional practices from a professional development programme. Concerns are evidence of teacher's experience. CBAM addresses the concerns of teachers from a developmental

perspective. It provides researchers with information on how teachers will adapt to change and provides a framework to plan, monitor and anticipate future needs (Anderson, 1997; Hall & Hord, 2006; Straub, 2009). As discussed earlier by Guskey (2002) professional development has three goals and the CBAM framework examines two of these; change in classroom practice and change in teachers' attitudes and beliefs. As referenced in Anderson (1997) change in learning outcomes of students is not examined.

CBAM offers a theory to support teachers returning from a professional development programme to implement a new instructional practice called an Implementation Bridge. Hall & Hord (2015) report that an Implementation Bridge (see Figure 4.4) is necessary for change to be successful and without one, many initiatives will meet resistance from teachers.

Figure 4.4. CBAM's implementation bridge
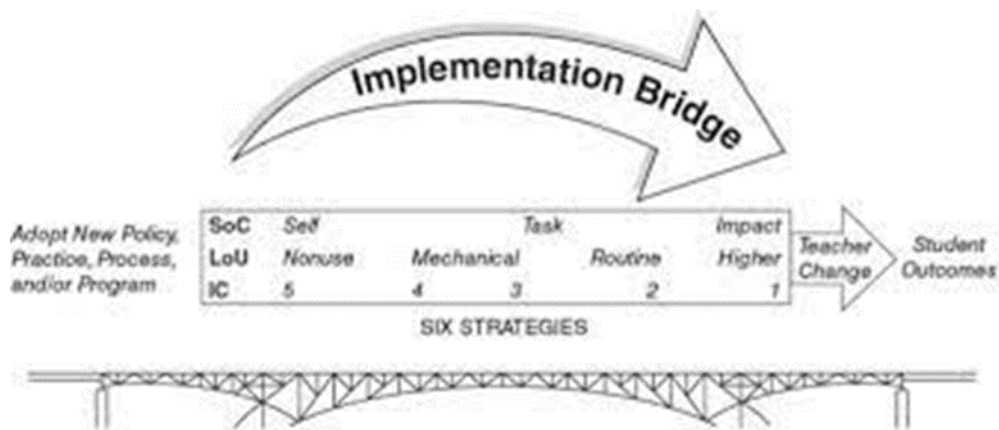
(Note. Adapted from Hall, G.E & Hord, S. (2016) Implementing Change. Patterns, Principles and Potholes)

The implementation bridge acknowledges two of change principles discussed in the Literature Review. First, organisations adopt change, but individuals implement it. For this principle, the implementation bridge left hand side "there is a very large and deep chasm with school engaged in current practice" (Hall & Hord, 2015, p. 13). The right-hand side of the bridge are the desired student outcomes. CBAM acknowledges when schools only focus on the left-hand side of the bridge and make no change in practice, it is unlikely that a change in outcomes will occur. Second, change is a process and not an event. It can take three to five years to implement new practices to a high level. Each member of the organisation must move across the bridge and as they implement new practices and there can be a change in outcomes. And importantly, resistance to change may occur along the bridge (Hall & Hord, 2015). (Figure 4.4 illustrates where the SoC can be found on the bridge).

For this research study I used the Stages of Concerns to explore teachers concerns as part of their experiences of implementing new instructional practices from a professional development programme. The Stages of Concern can be used in the pre-implementation period as well as during implementation, when teachers are changing from novice to mature users of a new practice (Hall & Hord, 2015). This study explores the concerns of teachers during three data collection phases of implementation of instructional practices.

Stages of concern

The Stages of Concern Questionnaire (SoCQ) is used to explore seven typical stages of concern related to teachers' concerns of implementing an innovation learned from the ILP. The SoCQ addresses the personal aspects of change, such as perceptions, attitudes,

feelings and reactions (Hall & Hord, 2015). Not all teachers follow the same linear progression or move through the stages at the same rate of progression. In some cases, some individuals may display several concerns simultaneously.

CBAM theory highlights that SoC is a developmental progression. It shows an individual's feelings, preoccupations and perceptions towards implementing an innovation into their instructional practice. The Stages of Concern has several assumptions. Change is a developmental process and takes time. As individuals progress through change, they experience a range of feelings. There are seven defined stages grouped into concern, awareness, self, task and impact. It is important to remember not all individuals have a linear progression through each stage. Some individuals display a combination of concerns simultaneously (George et al., 2006; Hall & Hord, 2015).

The Stages of Concern Questionnaire has seven different stages of concern. They are outlined in Figure 4.1. The questionnaire has 35 Likert scale questions and asks participants how they feel about introducing a new instructional practice into their own practice. Teachers implementing change concerns vary from seven stages of the change process (Anderson, 1997).

CBAM has four different categories of concerns that encompass the seven stages of the change process (Hall & Hord, 1987). Stage 0, Awareness, the first stage describes individuals who are not aware or have little concern with change. The second category is described as Self. In this category, Stage 1, Informational describes individuals who are learning about the change and Stage 2, Personal, how the change might affect them.

The third category, Task, has one stage, Management, individuals focus on the process and tasks of using the new practice or innovation. The fourth category of Impact has three stages. Stage 4, Consequences, where individuals are concerned about the impact on their students, Stage 5, Collaboration, individuals focus on how the impact might improve by working with colleagues and Stage 6, Refocusing, focuses on greater benefits from the change by alterations and adaptations (Guskey, 2000). Figure 4.1 outlines the categories and stages of concern.

Table 4.1 The stages of concern in the concerns based adoption model (CBAM)

Type of Concern	Stages of Concern	Description of the concern
Impact	(6) Refocusing	The focus is on the exploration of more universal benefits from the innovation, including the possibility of major changes or replacements with a more powerful alternative. Individuals have definite ideas about alternatives to the proposed or existing form of the innovation.
	(5) Collaboration	The focus is on coordination and cooperation with others regarding use of the innovation.
	(4) Consequence	Attention focuses on the impact of the innovation on "clients" in the immediate sphere of influence.
Task	(3) Management	Attention is focused on the processes and tasks of using the innovation and the best use of information and resources. Issues related to efficiency, organising, managing, scheduling, and time demands are utmost.
Self	(2) Personal	Individuals are uncertain about the demands of the innovation, his/her inadequacy to meet those demands, and his /her role with the innovation. This includes analysis of his/her role in relation to the reward structure of the organisation, decision making and considerations of potential conflicts with existing structures or personal commitment. Financial or status implications of the program for self

(Note. Adapted from Hall, G. E., George, A. A. & Rutherford, W. L. (1979). Measuring Stages of Concern about the Innovation: A manual for Use of the SoC Questionnaire Hall & Hord, 1979).

4.2.5 Influence of Fullan's change theory on the CBAM

The Concern Based Adoption Model (CBAM) is a conceptual framework and provides a lens for analysing educational change. Evidence from research shows that CBAM is one of the most powerful and empirically grounded theoretical models to examine the implementation of a change innovation (Anderson, 1997; Hall & Hord, 2015). Change theorists such as Fullan have influenced the development of the Concern Based Adoption Model (CBAM). The Stages of Concern Questionnaire, the qualitative questionnaire of CBAM was used in this study.

Users of CBAM focus on the facilitation of change by providing tools and techniques for assessing reform in an educational setting (Hall and Hord, 2015). Although CBAM does not explain why an innovation is adopted, it does provide a process to analyse and outline implementers' concerns of innovation adoption over time (Hall et al., 2015). For example, in education, the model is most frequently employed to measure, describe and explain the process of change related to understanding the process experienced by teachers of a curriculum reform or the introduction of an instructional practice (Anderson, 1997). Fullan's Change Theory and the Concern-Based Adoption Theory highlight how these theories bring meaning and understanding to why an individual chooses to adopt or reject an innovation (Straub, 2009).

Fullan Theory of Change is like CBAM Stages of Concern. Both reflect that change is not linear, events can alter decisions made at a different stage and change the speed, direction or reform (Fullan, 2016; Hall & Hord, 2015). I discussed Fullan's three phases of education change above. A reminder of the three phases are:

1.   Phase I Initiation.

2.   Phase II Implementation.

3.   Phase III Continuation.

Christou, et al. (2004) argues these three phases align with CBAM's Stages of Concern (figure 4.4). Phase I - Initiation involves an individual decision to adopt or proceed with the change. This phase corresponds to the awareness and information level of SoC. Phase II - Implementation involves the first experience of putting the change into practice. This phase aligns with personal, management and collaboration levels of SoC. Phase III - Continuation involves sustaining the change, corresponding to the consequence and refocusing level of SoC. Like Fullan's theory, CBAM change theory reflects the view that change is a process and is implemented by individuals who work in complex systems (Hall & Hord, 2015).

Figure 4.5 Link between Fullan's theory and SoC
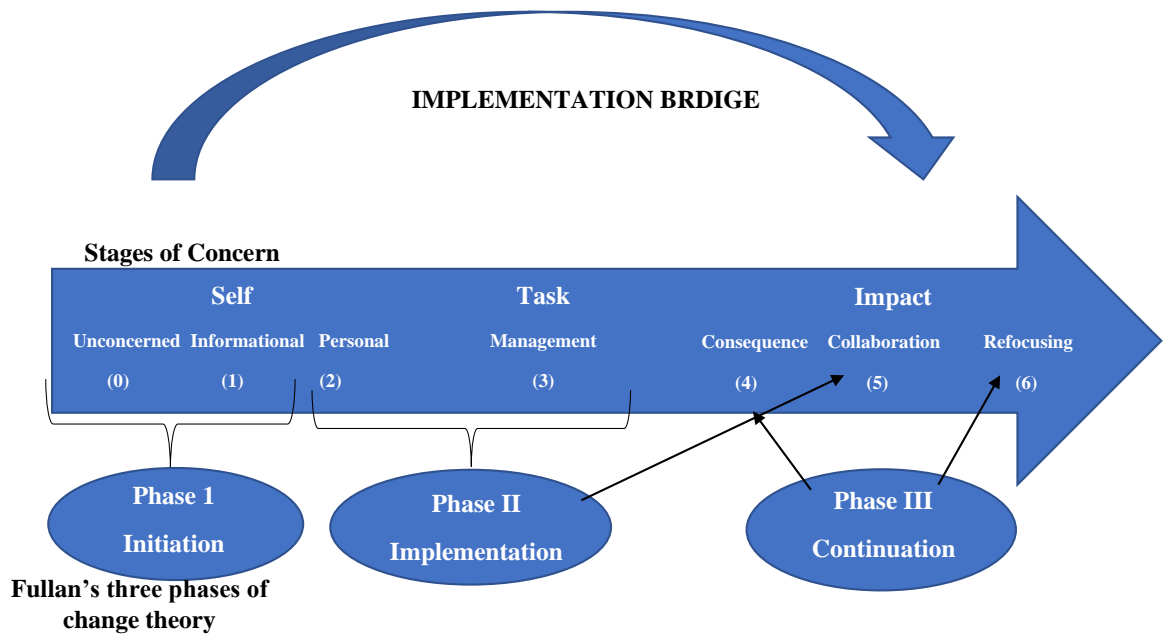
4.2.6 Link between the frameworks and the study

This study seeks to utilise three frameworks to address the research questions. A reminder of those are:

1. Fullan's theory of change;

2. Concern based adoption model;

3. Social constructionism.

Having a framework to lead the inquiry helps direct the research in terms of where to collect relevant data, what type of data to acquire, and who to collect it from. Even if the propositions presented at the start of the research may no longer be true, having direction in the form of a framework to drive the research design is crucial (Yin, 2009). In some cases, the evidence from the study overlaps with two frameworks. This adds to the triangulation of the study. The link between the research questions and the

framework is presented in Table 4.2 and Figure 4.5 along with possible sources of

evidence.

Table 4.2 Link between frameworks and the study

Framework (and element)	Research aim(s) & research question(s)	Evidence
Social constructionism Social constructionism meaning is always social, arising from interaction with others.	(RA) To understand the experiences of teachers changing their instructional practices from a professional development programme. (RQ) What are the experiences of teachers implementing new instructional practices?	Teachers' relationships and collaboration with colleagues is explored in this study especially when they return to school to implement the new instructional practices. This data was collected through the semi-structured interviews of all 15 participants in phase 3 and 6 participants in phase 5.
Social constructionism Individuals engage with their world and make sense of it based on their social perspectives.	(RA) To understand the influence of school context on teachers implementing instructional practices. (RQ) How does school context support teachers' change their instructional practices?	The contexts the participants operate in are explored in this study. Three contexts are explored in this study: the individual teacher, the school they work in and the professional development programme they are engaged in. Data is collected through the semi-structured interviews in phase 3.
Social constructionism Individuals construct meaning as they engage with the world they are interpreting	(RA) To understand the experiences of teachers changing their instructional practices from a professional development programme. (RQ) What are the experiences of teachers implementing new instructional practices?	The participants in this research report their personal experiences of implementing instructional practices from a professional development programme. They outline the beliefs, concerns and emotions from the world they are interpreting. This data is collected in phase 3 semi-structured interviews.
Fullan's theory Phase II – Implementation Local Characteristics Characteristics of change	(RA) To understand the experiences of teachers changing their instructional practices from a professional development programme.	Teachers collaborating to support implementation of IL practices. This is explored through collaborative cultures in schools and teachers seeking

	(RA) To understand the influence of school context on teachers implementing instructional practices. (RQ) What are the factors that enable or hinder teachers changing instructional practice from a professional development programme? (RQ) How does school context support teachers' change their instructional practices?	to work with teachers in other schools. Data collected in both the phase 3 and phase 5 semi-structured interviews. Data collected from the SoCQ.
Fullan's theory Phase II – Implementation Local Characteristics Characteristics of change	(RA) To understand the experiences of teachers changing their instructional practices from a professional development programme. (RA) To understand the influence of school context on teachers implementing instructional practices. (RQ) What are the factors that enable or hinder teachers changing instructional practice from a professional development programme. (RQ) How does school context support teachers' change their instructional practices?	The role of school leadership. Data collected during phase 3 and 5 semi-structured interviews.
Fullan's theory Phase II – Implementation Characteristics of change	(RA) To understand the experiences of teachers changing their instructional practices from a professional development programme. (RA) To understand the influence of school context on teachers implementing instructional practices.	Structure and design of the programme to support teachers with implementation. Data collected through phase 3 semi-structured interviews.

	(RQ) What are the factors that enable or hinder teachers changing instructional practice from a professional development programme.	
Fullan's theory Phase II – Implementation Local Characteristics Characteristics of change	(RA) To understand the experiences of teachers changing their instructional practices from a professional development programme. (RA) To understand the influence of school context on teachers implementing instructional practices. (RQ) What are the factors that enable or hinder teachers changing instructional practise from a professional development programme.	Teacher Agency Data collected through semi-structured interviews.
Concern based adoption model Stages of concern	(RA) To understand the experiences of teachers changing their instructional practices from a professional development programme. (RQ) What are the experiences of teachers implementing new instructional practices?	SoC is utilised to address the concerns teachers have when implementing new instructional practices. Stages of Concern data was collected from all participants in phase one, two and four.

* RA- research aim, RQ- research question

4.3 Research design

To gain an understanding of teachers experience of change along with factors (surrounding context) that support or hinder teacher implementing new practices learned from a professional development programme a case study approach informed the design, data collection and methods of analysis for this study. A multi-site case

study approach in which multiple methods of data collection was utilised to explore the research question which emanated from the theoretical framework.

Multiple forms of data drawing on all possibilities of both statistical and text analysis were collected in this study (Creswell et al., 2018). Quantitative data from CBAM, Stages of Concern Questionnaire and semi-structured interviews provided an insight into teachers' experience of implementing instructional practices from a professional development programme. This qualitative data was analysed using Thematic Analysis (TA) (Braun & Clarke, 2006).

Research Question

The research encompassed a multi-site case study research design drawing on the experiences of fifteen teachers from five post-primary schools engaging in a professional development programme. The following research question and two sub-questions were asked to collect the relevant data.

What are the factors that enable or hinder teachers changing their instructional practise from a professional development programme?

Sub questions related to the main research question include:
1. What are the experiences of teachers implementing new instructional practices?
2. How does school context support teachers' change their instructional practices?

4.3.1 Case study

A case study is the "study of the particularity and complexity of a single case, coming to understand its activity within important circumstances" (Stake, 1995, p. xi). Cohen et al. (2011) argues that multi-site case studies, for comparative purposes, are more worthwhile than having two single site case studies when the study examines change from a professional learning programme. Newby (2010) would support the comparative aspect of a multi-site case study because the characteristics of the participants are knowingly varied to assess the significance of the difference. This study is a multi-site case study as it draws fifteen participants from five different post-primary schools. As this study is a multi-site case study it provides multi advantages points and data sources to better understand the complexity of educational change of the participants in the study. Case studies are characterised as complex, multilevel and multidimensional and evolve over time as the contexts and sites do. In turn schools are complex and hierarchical in nature, with multiple interrelated levels which incorporate the complexity of educational change (Sharp et al., 2012).

Yin (2003) believes there are several reasons for engaging in case study research. This study would align with two. First, the researcher cannot manipulate the behaviour of the participants and second, the researcher can learn more about the contextual conditions that are relevant to the phenomenon under study. These two reasons are both applicable as this study focuses on the understanding of teachers' experiences and the change of classroom practices of post-primary teachers from participating in a professional development programme.

There are limitations of using case study as the methodology approach. The findings from a case study are tied to specific context and can't be generalised to the wider population (Cohen et al., 2011). This multi-site case study explores the perceptions of fifteen participants from five schools implementing new instructional practices. Each of the five contexts provide unique perceptions on teachers implementing new practices.

4.3.2 Data collection

Case studies are predominantly associated with qualitative research, this study incorporates both qualitative and quantitative research methods (Robson, 2016). The mixing of both qualitative and quantitative data during this study addresses the multi-layered research questions.

Epistemology is concerned with knowledge (Morrison, 2002) and as this study explores teachers' experiences of implementing instructional practices from a professional development programme, this knowledge is highly personal and complex. To ensure the data collected reflects the highly complex personal information each participant is sharing, five phases of collection was developed to acquire this knowledge in different ways to suit the participants context, perception, experiences and circumstances. The data collection approach is guided by the case study design, the research question and sub questions (Creswell & Creswell, 2018; McConney et al., 2002).

4.3.3 Phases of data collection

Examining educational change is complex in nature, the Concern Based Adoption Model (CBAM) has been designed to analysis educational change, a multi-site case

study data collection approach for this study provides an understanding of the experiences and processes which occur with teachers' experiences and change in classroom practices in their five schools.

The data collection for this study is aligned into five phases of collection and data analysis. The qualitative data collection supports the quantitative results. The qualitative and quantitative databases are analysed separately before combining the two databases by the form of integration connecting the quantitative results to the qualitative data collection.

The data was collected and analysed (fig 4.6) in the following sequences:

Phase 1- Stages of concern questionnaire to all fifteen participants October 2019

Phase 2- Stages of concern questionnaire to all fifteen participants March 2020

Phase 3- Semi-structured interviews with all fifteen participants June-October 2020

Phase 4- Stages of concern questionnaire to all fifteen participants June 2020

Phase 5- Semi-structured interviews with six participants October-December 2020.

Figure 4.6 Phases of data collection
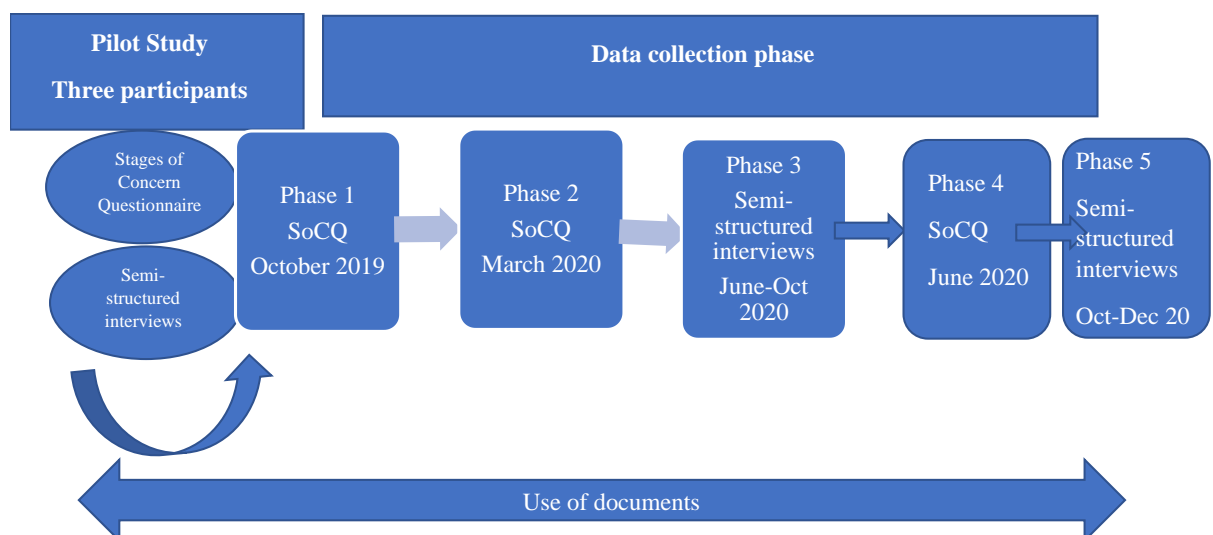
4.3.4 The use of documents

I discuss later in this chapter that a unique strength of a multi-site case study lies in the ability to deal with a variety of evidence, for example in this study the use of documents, Stages of Concern Questionnaire and semi-structured interviews data collection tools (Cohen et al., 2011; Yin, 2009). The ILP documents in this study were used for verification purpose to check against data from the interviews. Documents from the ILP that were used for verification include: aims, objectives and descriptors of modules of the programme and lists of schools involved in the programme. Table 4.2 above links the research question to the three frameworks used in this study. As part of the evidence outlined in the table, I describe the use of documents from the ILP in this study.

4.4 Instrument

4.4.1 Stages of concern questionnaire

The survey has 35 questions where individuals are to comment about how they feel about the professional change that they are experiencing. The purpose of this questionnaire is to analyse the perceptions, concerns, feelings and attitudes of teachers as they implement or choose to implement an innovation. The SoC tries to make a connection to the concerns teachers experience to the development and implementation of a new instructional practice (Hall & Hord, 2015).

The Stages of Concern Questionnaire consists of three parts. The first part, the introduction, provided information for the participants to complete the questionnaire. The second part of the questionnaire established the independent variables such as years of service and gender. Independent variables are those that cause, influence, or affect outcomes and can include treatment, manipulative, antecedent or predictor variables

(Creswell & Creswell, 2017). The information collected from the participants had a dual purpose including, description of the survey sample and comparison of survey findings for statistical analysis.

The third part of the questionnaire consisted of the SoCQ, which measured the dependent variables. George et al. (2006) recommend changing the word innovation within the questionnaire with the name of the innovation. In this case innovation was changed to Instructional Leadership strategy in accordance with the questionnaire instruction. No other change was made to the questionnaire. Any further change to the questionnaire risked reliability and validity (George et al., 2006).

Each statement expressed a concern about the use of a new or revised instructional practice. Participants responded with their current level of concern related to each statement by choosing a number on the Likert scale. The four response categories range from 0 = Irrelevant, 1-2 = Not true of me now, 3-4 = Somewhat true of me now, 5-7 = Very true of me now.

Independent variables

The independent variables: gender, number of years teaching and the school's previous engagement with ILP were analysed using descriptive statistics using Microsoft Excel. Fifteen teachers participating in cohort 12 of the ILP took part in this study. The independent variables of the participants are outlined below:

Table 4.3 Number and gender of teachers

Gender	Number	%
Male	1	7
Female	14	93

Table 4.4 Participants number of years teaching experience

Years of teaching experience	Number	%
1-5	4	26.6
6-10	4	26.6
11-15	3	20
15+	4	26.6

Table 4.5 Previous engagement of school in ILP

School previously engaged in ILP?	Number	%
Yes	10	66.6
No	5	33.3

Validation and reliability of the stages of concern questionnaire

Evidence indicates that the SoCQ has good reliability and validity and the capacity of

using it to develop concern profiles (George & Rutherford, 1979; Hall et al., 2003). A

few strategies have been used to determine the reliability and validity of the Stages of Concern Questionnaire. Validity refers to the conclusion is well founded, and empirical reality is correct (Schutt, 2009). To ensure this according to George et al. (2013) the authors of SoCQ have applied inter-correlation matrices, judgements of concerns based on interview data, confirmation of anticipated group differences and changes over time.

Reliability refers to a measurement process achieving consistent results under the identical condition (Schutt, 2009). The internal reliability of the SoC was achieved by Hall & Hord (1973). A pilot study with open ended concern statements and forced ranking generated 544 potential items resulting with 400 items were determined related to a particular stage. A second pilot was undertaken with 195 items. This resulted in a 35-item survey being compiled with selecting factors that corresponded to each stage of concern. The consolidated survey was then re-administered to establish test-retest reliability (Hall & Rutherford, 1979). A two-year longitudinal study on a stratified sample of 830 teachers determined that the SoCQ accurately measured the Stages of Concern. Cronbach-alpha (internal consistency) coefficients ranged from .64 to .83. The questionnaire was reissued to teachers two weeks later. 132 completed and returned the questionnaire. The test re-test coefficient ranged from .65 to .86 indicating acceptable to good stability (Hall et al., 1998).

Results from these studies show that the reliability and validity of the SoCQ are within the acceptable to good range to ensure that it allows researchers to measure individual educational change. The SoCQ addresses the affective aspects of change, such as people's reactions, feelings, perceptions and attitudes (Hall & Hord, 2015; Hall et al., 1998).

Although CBAM has been used as a tool to assess educational change for many years it has some shortcomings. The results of some studies highlight that the awareness stage and the refocusing stage have substantial reliability issues. Studies report that additional research into the reliability and validity of the scale is needed (Strubt, 2009). CBAM pays relatively little attention to the students in the model except in the Consequences stage of teachers' concerns. Teachers are the initial individuals who experience the change; however, it does filter down to the students.

It highlights resistances to change however does not highlight a teachers' belief in an innovation that they also have a concern with (Strubt, 2009). The teacher is an adopter of the change innovation but also acts as a change agent for students. As instructional practices are changing the effects of students in this model may become more critical (Anderson, 1997).

4.4.2 Interviews

Semi-structured interviews were used in this study in which open ended schedules of questions were prepared. Interviews are a flexible tool to gather data as it allows participants to discuss their own context and their view of that context (Cohen et al., 2011). This study used semi-structured interviews in phase three and five. The details of each phase of semi structured interviews are outlined below.

In case studies, there are multiple realities for the participants, and the interview provides the main vehicle for presenting their multiple realities (Stake, 1995). The purpose of this study was to gather information on the participants implementing new

instructional practices from a professional learning programme. The nature of semi-structured interviews in this case allows a flexible approach to asking the participants questions with the use of less structured questions. It allows for specific data required from the participants to be discussed with the flexibility of no predetermined wording or order of the questions (Merriam & Tisdell, 2015).

The phase three interview questions were based on discovering the emotions, beliefs and factors surrounding the context of the participants engaging in a professional development programme. Using the conceptual framework (CBAM), the design of the interview questions were based on probing knowledge from the participants on their personal experiences of change. I decided not to make the interview questions too specific as to allow flexibility to probe further information from the participants (Bryman, 2004).

Researchers avoid studying teachers' emotions as it is elusive and difficult to measure objectively (Zembylas, 2003). To collect data on the emotional experience's researchers have developed multiple methodological perspectives such as observations, neuroimaging techniques and peripheral physiological measures of emotional responses (Pekrun et al., 2014). Assessment of emotions through interviews allows individuals to describe a complex mix of thoughts, relationships and events related to context. Collecting data on emotions through interviews provides an opportunity to use the SoCQ as an additional lens to identify the concerns teachers experience at different junctions in a change process and to discern patterns in emotional responses linked to their concerns.

4.5 Sampling

Creswell (2014) reports the importance of the researcher gaining access to participants through a gatekeeper in their natural setting. To gain access to possible participants, the role of a gatekeeper was crucial to this research process. With this in mind, prior to starting this study, I contacted the Chairperson of the Instructional Leadership Programme, who has access to the participants of the ILP, to obtain permission for the research and she agreed to act as gatekeeper for this study. After approval was secured, the Chairperson agreed to contact participants currently engaged in Cohort 12 (n=15) of the programme to gain an interest in taking part in the study. I wrote a formal letter explaining the purpose of the research and included with the letter an information sheet outlining the benefits of carrying out this research. I forwarded the letter and information sheet to the Chairperson of the Instructional Leadership Programme Steering Committee and requested that it was forwarded directly to all teachers taking part in Cohort 12 of the Instructional Leadership Programme. In the letter I provided my contact details to contact me directly if they agreed to take part in the research. I met all agreed participants (n=15) before the commencement of session two of the programme to discuss any concerns, the consent form and information sheet and I explained their involvement in the research.

4.5.1 Sample

Sampling is a complex issue in case study research because there are many variations of sampling strategies described in relevant literature. Researchers have generally agreed that the aims of the study should guide how cases are selected (Cohen et al., 2011; Mills et al., 2010; Yin, 2009). Sampling in case study research is largely

purposeful, that is, it includes the selection of information-rich cases for in-depth study. Sampling techniques for a multi-site case study is crucial to gain an in-depth understanding of the research context (Cohen et al., 2011).

In this study purposeful random sampling is used to enhance credibility of the selection of participants (Cohen et al., 2011; Mills et al., 2010). A purposeful random sample of fifteen post primary teachers engaging in cohort twelve of the Instructional Leadership Programme were selected for this research. This study explores teachers' experiences of using new instructional practices from the Instructional Leadership Programme. The criteria for selection required participants to be teaching for the duration of this study. Based on data analysed for the phases one to four, six participants were purposely selected for further interviews in phase five based on their SoC peak scores between October-December 2020.

Fifteen participants from five post primary schools engaged in this study. Pseudonyms are used to ensure the anonymity of participants and schools in this study. Table 4.6 provides a description of the 5 schools and fifteen teachers.

School A is a DEIS band ETB school. It has a student population of 400-500 students. The Deputy Principal in the school was a previous graduate of the ILP (completed ILP as a teacher in a different school) along with six teachers from two cohorts. There is a culture of collaboration in the school associated with professional development for staff supported through Cosán workshop, professional development events during Croke Park time, a peer observation programme and staff leading junior cycle training days. The school has four teachers attending the programme.

School B is an urban ETB post-primary school with a student population of 600-700 students. The school has six teachers from two previous cohorts trained in the ILP. Both the principal and the deputy principal also completed the ILP as teachers in different schools. The senior leadership team support staff with sharing of good practice through Croke Park time, Teaching and Learning Clubs, Breakfast Clubs and a voluntary peer observation programme. The school has three teachers attending the programme.

School C is a private post-primary school with an enrolment of 900+ students. No teacher in the school has attended the ILP. The school operates a peer observation programme to support teacher with good practice, a Teaching and Learning Club and has developed aspects of the ILP into the school's Wellbeing Programme. The school has three teachers attending the programme.

School D is a rural ETB school with a student population of 100-200 students. No previous teachers or school leader have attended the programme. The school has no collaborative initiatives established in the school to support teachers with the implementation of ILP. The school has two teachers attending the ILP.

School E is a DEIS band ETB school. One previous cohort of teachers (2 teachers and 1 Deputy Principal) has attended the programme. The Deputy Principal and one teacher have retired from the school at least one year prior to the current participants engaging with the ILP. The school has no collaborative initiatives in place in the school to support teachers with implementation. There are three teachers from the school attending the programme.

Table 4.6 Participants and schools involved in the study

School	Participants & Number of years teaching experience	School Sector	Student Population	The school's previous involvement in ILP
School A	Kate (1-5) Mia (15+) Grace (6-10) Ava (1-5)	ETB	400-500	Yes. Two previous cohorts.
School B	Sophie (6-10) Emily (6-10) Molly (1-5)	ETB	600-700	Yes. Two previous cohorts.
School C	Hannah (11-15) Emma (15+) Aoife (11-15)	JMB	900+	No previous involvement.
School D	Ella (11-15) Lucy (15+)	ETB	100-200	No previous involvement
School E	Jack (15+) Lily (6-10) Chloe (1-5)	ETB	200-300	Yes. One previous cohort.

(ETB – Educational and Training Board, JMB – Joint Managerial Body

4.5.2 Pilot study

To test the suitability of the study, a pilot study was conducted with three teachers not involved in the study to ensure validity and reliability of the data collection instruments. The SoCQ was administered to the three teachers before analysing the data. I analysed the data from the SoCQ using the SEDL website and checked the results by also analysing the questionnaire on paper.

All three phases of interviews were piloted with the same three teachers. The interviews were recorded and transcribed before using thematic analysis to analyse the data. The

pilot interviews gave me an insight into the interviews and the opportunity to make further changes. From the three pilot interviews I felt I needed to have probing and follow up questions ready to gain further information from the participants.

The three teachers chosen for the pilot interviews were teachers in my school and had completed the Instructional Leadership Programme making them suitable participants for the pilot study. This made me conscious of the power element I would have in the interviews, with the four teachers I worked with and as a member of the Steering Committee of the Instructional Leadership Programme. I will address the ethical consideration later in this chapter.

4.6 Data collection procedure

4.6.1 Analysis of ILP Documents

A unique strength of a multi-site case study lies in the ability to deal with a variety of evidence, for example in this study documents, stages of concern questionnaire and semi-structured interviews (Cohen et al., 2011; Yin, 2009). The SoCQ and interviews were used as the main source of data in this study. The use of ILP documents was used to collect information on the uptake of schools in the ILP and the aims, objectives and content of the modules. Using the documents corroborate findings from the interviews (Yin, 2009) and provided triangulation of evidence by data type (Miles & Huberman, 1994). This evidence was an outcome of the interviews and not an explicit exploration of documentary data. By collecting and double-checking findings from various sources of data collection, the verification process was built in (Cohen et al., 2011).

The data was collected over a fourteen-month period between October 2019 to December 2020 in five phases as outlined below.

Phase 1

Concern Based Adoption Model (CBAM), a paper-based Stage of Concern Questionnaire (SoCQ) was administered to all 15 teachers in person at the beginning of session 2 of ILP. The SoCQ is a 35-part questionnaire designed by Hall & Hord (1979) to highlight seven different stages of feelings or perceptions that a teacher will experience when they are adopting the instructional practices. To ensure consistency in the responses I asked participants to select one strategy from the first session of the Instructional Leadership Programme that they have implemented into their practice and to base their responses on their implementation experiences of that strategy. The raw data was converted into percentile scores and used to generate individual profiles for each participant displaying intestines of concern for each stage.

Prior to the participants completing the SoCQ, I spoke with all to ensure informed and continued consent is at the forefront of my work throughout. Each participant was issued with an information sheet outlining details of the study along with a consent form. All participants returned the consent form signed. I ensured all participants were aware of my research and informed them at the outset that they have the right to withdraw from the study at any time with no negative consequences.

Phase 2

A paper SoCQ was administered to all 15 teachers in session 3 of the programme in person. Teachers had five months to implement additional instructional strategies into

their teaching. For this questionnaire I instructed participants to select one strategy that they have implemented into their practice and respond to the questionnaire based on their experiences of that strategy. This will ensure consistency with responses.

Phase 3

Interviews were chosen as a research method to elicit the views of the 15 participants to discover more about the individual Stages of Concern and to get greater insight into the participant's opinions of implementing new strategies into their practice and their opinions of the programme. Semi structured interviews were used. Individual in depth, semi-structured, open-ended interviews were conducted with each of the 15 participants, each lasting approximately forty-five minutes. The questions were formulated from emergent themes and topics from the literature review, along with my own professional experience of completing the ILP and reflection from the pilot interviews. I had selected fifteen questions as a guide to probe information from the participants. Not all questions were asked in the interviews as they were used as a guide and used to probe information from the participants.

The semi-structured interviews were conducted to provide deeper probing into the implementation of the instructional change. Most interviews were conducted in the place of the participant's choosing. In most cases this was their place of work. Five interviews were conducted by Microsoft Teams due to requests and travel restrictions from Covid-19.

The same interview protocol was used for each interview. At the beginning of each interview, the participants were thanked for agreeing to participate and a reminder of

the purpose of the study. Confidentiality again, was guaranteed to all participants. The explanation of how the research findings would be used, stored and disposed of after use. I endeavoured to conduct each interview absent of judgement and managed and accounted for my biases (Cohen et al., 2011).

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. The initial interview questions (appendix 8) began with a general question exploring each participants feelings about the ILP from the first session. Next, open-ended questions focused on the structure of the programme, engagement with their learning and implementation of the new practices back at school. I also felt it was important to use language that was understandable by the participants and to have questions as open ended as possible to gain spontaneous information in particular about teachers' perception, feeling and emotions rather than a rehearsed position (Cohen et al., 2011). All interviews were one on one and audio recorded with an Olympus VN-541PC audio recorder including the interviews conducted on Microsoft Teams. During each interview I also took notes. The recordings were transferred to a PC. Temi, an online audio to transcription service was used to transcribe the interviews. To ensure the accuracy of the transcribed interviews and to familiarise myself with the transcripts I checked all transcripts against the audio copy and made any necessary corrections.

Phase 4

An online SoCQ was administered to all teachers by email using Microsoft 365 Forms. The responses were saved automatically to an online spreadsheet connected to the form. The participants received an email with a Microsoft link for accessing the survey

instrument. Once the participants completed the survey instrument they selected the submit button located on the survey. When the survey was submitted a thank you page was displayed providing contact information for me. The raw data from this survey was downloaded onto an excel document.

Phase 5

To discover more about the reasons underlying individual SoC profiles and to gain a deeper understanding of teachers implementing new or revised instructional practices and their broader context, a selection of teachers were interviewed again. SoCQ describes interesting experiences about an individual participant's orientation to the programme and the change experience. Perceptions are closely tied in the change process and by using SoCQ placements will provide a more complete picture for individual and collective experiences. The six participants selected were based on having the highest peak score and second peak score from the SoCQ. These six participants in phase 3, when analysed, had strong evidence of implementing the instructional practices and working in collaboration with their colleagues in their schools.

With the aid of the conceptual framework and the literature review an interview schedule was developed. It was important not to make the questions in this phase too specific, to allow for flexibility to probe further information on the participants wish to collaborate with others in their school and on the programme. All participants were asked the same open-ended questions (appendix 9) during the interviews. The interviews were recorded with an Olympus VN-541PC audio recording and transferred to a PC. Interviews were transcribed using Temi, an online audio to text transcription.

The transcriptions were again checked to ensure accuracy. The data from the interviews were analysed and triangulated with data from the previous three phases.

4.7 Data analysis

The following paragraphs outline the procedures and methods used to analyse the data from each phase of the research.

4.7.1 Data analysis of stages of concern questionnaire

The data was taken from the paper SoCQ (phase 1 & 2) and the online survey (phase 4) were entered onto the American Institute of Research Stages of Concern Administration site. The site is a secure site which is password protected. George et al. (2006) have identified several administrative features for this site. First, the site allows for each cohort to define subgroups for the SoCQ participants to allow the questionnaire data to be graphed and examined for everyone, the entire cohort, or by a combination of one or more subgroups. Second, access the administrative area to view generated graphs, which represent the stages of concern for the participants being viewed. The data can be easily downloaded from the site to Microsoft Excel format. The names or any identifiable features of this research was not included on the site. Once data was analysed on the site, the results were downloaded, and the data was removed from the site. To ensure accuracy of the analysis I also analysed a selection of participants surveys on paper using the Stages of Concern Quick Scoring Device as recommended by George et al. (2006). I compared this selection to ensure the American Institute of Research (AIR) site was accurate.

The AIR administration site collects the raw score from each stage and converts the data to percentile scores for each of the seven stages. Scoring the questionnaire requires calculating raw scores for each of the seven stages, locating the percentile score for each scale in a table and plotting the results on the Stages of Concern Profile Cart (George et al., 2006). The questionnaire consists of 35 statements, each statement resulting in a certain concern about the innovation. Participants indicate the degree to which each concern is accurate from them by marking a number on a 0-7 scale next to each statement. High numbers indicate high concern, low numbers indicate low concern and 0 indicates very low concern for the innovation (George, et al., 2006).

Individual profiles for each participant displaying relative intensities of concern for each stage were generated along with graphs representing the peaks and troughs in an individual concern profile. Data was analysed using peak (highest) score along with second highest score for each phase. A group profile for each phase was also generated by aggregating all individual raw scores and converting them into percentiles. A group comparison and a view of all five sites of all three phases was conducted, displaying the peaks and troughs on a graph and into a numeric table.

SoC Wave Motion. The initial step of interpreting a SoC profile is to compare the overall shape to those in figure 4.7, the SoC wave motion (Hall & Hord, 2015).

Figure 4.7 Ideal "wave motion" development of stages of concern
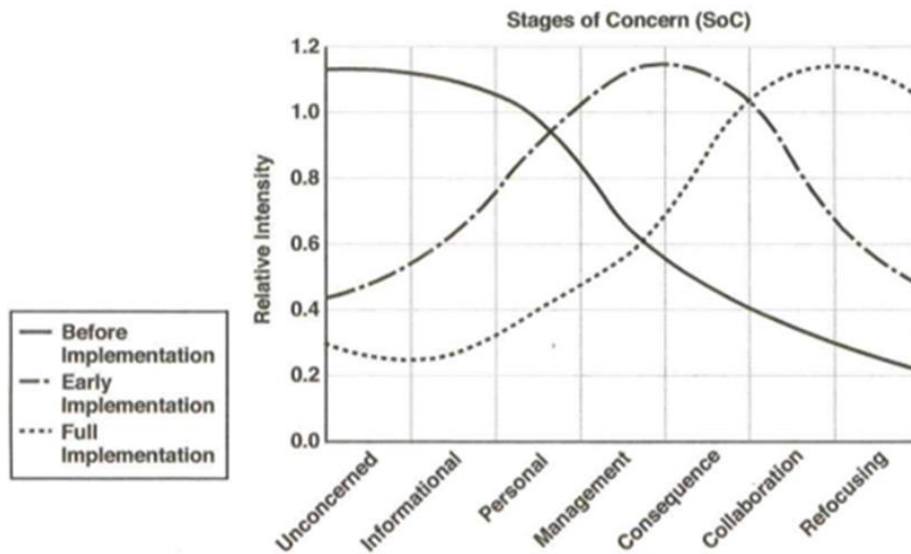
The overall shape of a SoC profile must be considered first. The high (peaks) and low (valley) on the profile are key points of reference. This is when the definitions of the SoC become important (see table 4.4). A peak on the profile indicates the type of the concerns that are described for that stage are intense and the valleys show little or no concern for that stage. When there is a peak at more than one stage, the profile must be interpreted by combining the definition for those stages (Hall & Hord, 2015).

4.7.2 Data analysis of the interviews

Approaches for analysing qualitative data are typically interconnected phases (Creswell, 2014). Analysing the phases may be concurrent and repetitive and can be viewed as cyclical rather than a linear process. Creswell (2013) reports qualitative data analysis can be outlined in three phases. They are:

1. Arranging and organising the data;

2. Coding the data to find themes;

3. Discussing and describing the data.

As I outlined earlier in this study, I have an interpretative stance and this applies to the data analysis of the interviews. This stance reports a perception of reality is shaped by our experiences and interactions with others (Creswell et al., 2018). This involves interpretative work that I do at each phase of analysis (Smith & Osborn, 2003). I draw upon a reflexive thematic analysis framework (Braun & Clarke, 2006; Clarke & Braun, 2018; Terry et al. 2017) to apply a systematic manner to analyse the semi-structured interviews. The framework is a flexible interpretative approach to qualitative data analysis. Thematic analysis (TA) is a qualitative analytic method designed to report themes occurring in data. Thematic analysis can provide rich data sets through codes and themes (Braun & Clarke, 2006).

The purpose of TA is to identify patterns of meaning across a dataset that provide an answer to the research question addressed (Braun & Clark, 2006; Terry et al., 2017; Clarke & Braun, 2018). Patterns are identified through a rigorous process of data familiarisation, coding, theme development and revision (Clarke & Braun, 2006). A code "are tags or labels for assigning units of meaning to the descriptive or inferential information compiled during a study. Codes are usually attached to 'chunks' of varying size – words, phrases, sentences or whole paragraphs" (Miles & Huberman, 1994, p. 56). A theme "captures something important about data in relation to the research question and represents some level of patterned response or meaning within the data set" (Braun & Clarke, 2006). For this study Braun & Clarke's (2006) six phase approach to thematic analysis (Table 4.7) was used. Although these phases are

sequential and each build on the previous phase, analysis is a recursive process with

movement back and forth between the six phases.

Table 4.7. Six phases of thematic analysis

Phase	Description of the process
1. Familiarising yourself with the data.	Transcribing data, reading and re-reading the data, noting down initial ideas.
2. Generating initial codes.	Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code.
3. Searching for themes.	Collating codes into potential themes, gathering all data relevant to each potential theme.
4. Reviewing themes.	Checking if the themes work in relation to the coded extracts (Level 1) and the entire data set (Level 2), generating a thematic "map" of the analysis.
5. Defining and naming themes.	Ongoing analysis to refine the specifics of each theme, and the overall story the analysis tells, generating clear definitions and names for each theme.
6. Producing the report.	The final opportunity for analysis. Selection of vivid, compelling extract examples, final analysis of elected extracts, relating back of the analysis to the research question and literature, producing a scholarly report of the analysis.

 (Note. Adapted from Braun & Clarke, 2006, p. 87)

Braun & Clarke (2006) distinguished between a top down or theoretical thematic analysis, that is driven by the specific research question and/or the researchers focus and a bottom up or inductive one that is driven by the data itself. An inductive approach to coding and theme development was used. An inductive approach involves coding and theme development directed by the content of the data and is informed without any preconceptions. It is consonant with a subjective epistemology and an interpretivist understanding of participants' meanings (Braun & Clarke, 2006). This method allowed me to use an open-ended and flexible approach to data analysis.

Analysis of the data starts with familiarisation but close similarities with coding reliability approaches to TA end at this point. Coding is then treated as an organic and flexible process with good coding requiring detailed engagement with the data. Themes are then developed from the codes and working with the data and codes, rather than pre-existing the coding process. With this process the themes are not imaged or anticipated at the start of the process and do not drive the analytic direction of the findings (Terry et al., 2017).

With this approach coding and theme development are assumed to be subjective and an interpretative process. The codes then need to be seen and analysed. This is not something waiting to be found in the data (Terry et al., 2017). Quality is a concern in this process, but the reviewing of themes (Braun et al., 2006) place an emphasis on reflection, rigour, a greater depth and engagement of the data rather than a focus on coding accuracy.

The flexibility of reflective thematic analysis can lead to inconsistency and a lack of coherence when developing themes from data (Holloway et al., 2003; Terry et al., 2017). Terry et al. (2017) argues the subjectivity of the researcher is seen as an integral aspect of the process of analysis. With this in mind, I kept a record of the data collection and analysis throughout the study. By using a journal, it allowed me to reflect upon my engagement with the data. As a member of the steering committee of the ILP, a graduate of the programme and a Deputy Principal in a school four participants were engaging in the study, the journal allowed me to record my perceptions and feelings about the research process. For example, I noted observational comments as I conducted the interviews. Following the interviews it allowed for deeper engagement with the data, particularly in relation to themes such as participants comments on the structure and design of the programme and teachers' emotions on change. By recording these considerations in a reflective notebook, an attempt is made to minimise any potential biasing influence on data analysis. Appendix 14 provides a sample of the journal and procedures followed.

The data collection phase had two phases of qualitative interviews. I will outline the analysis of each phase.

Phase 3- Interviews with all fifteen participants

Phase one, the interviews were transcribed using Temi and each transcript was checked against the recording to ensure accuracy. Each transcript was read several times and I reviewed interview notes and reflections as to familiarise myself with the data. Following Braun & Clarke's (2006) recommendations, the transcribed data was reread and initial ideas were noted by the researcher. The focus during this phase of data

analysis was to immerse myself in the data, repeatedly rereading the transcripts, searching for meaning and patterns. The transcripts were than uploaded into MAXQDA.

Phase two began once I had reread and familiarised myself with the data, formed ideas about the about what is the data and what is interesting about them (Braun & Clarke, 2013). This phase involved generating succinct codes that may be relevant to answering the research question. The data was labelled as codes with groups of words and sentences. The process identified specific characteristics of the data, moving from unstructured data to the development of ideas relevant to the research question. Using MAXQDA, I read each transcript noting comments, observations and possible codes on each transcript. MAXQDA allows codes to be assigned to pieces of data and then retrieving all the data under a particular code.

I didn't have any pre-set codes; instead, as I worked through the coding process for each transcript, I developed and updated existing codes as well as creating new ones. For example, during this phase frequent references to positive emotions arose and were relevant to my research question. Each transcript was given equal time and each item to emerge from the process was given equal attention to seek to address the research question. The codes for phase two are illustrated in Appendix 1 (Phase 2 Initial Codes) along with a description of their meaning and the number of times the codes are identified in the transcripts. There were 21 initial codes identified during phase 2.

Phase three, this entailed gathering all the relevant coded extracts in order to find potential themes that matched the research question. (Appendix 2 Searching for Themes). The 21 codes were collated into eight potential themes.

Phase four involved the themes being reviewed, modified and developed. The validity of the themes was considered to determine if they accurately reflect their meaning in the dataset (Braun & Clarke, 2013). Using MAXQDA, I generated all data from each potential theme and printed the data. I read and reread the data from each segment and explored the possibility of each data source was relevant to the theme. Four themes emerged from this process (Appendix 3 Refining and Defining Themes).

Phase five of coding involved defining and naming the themes (Appendix 4 Defining and Naming Themes). Braun & Clarke (2013) advise the refinement with the generation of themes and to outline the definitions for each of the four themes to tell their story in relation to the research question. With this in mind, three themes and sub-themes were generated from this phase (Appendix 5). The final part of this process involved writing up the findings from a set of fully worked out themes.

The three themes and sub-themes to emerge from the data analysis are outlined below.
1. Factors surrounding school context that support or hinder change.
2. Design of the programme involving the presentation of theory and demonstration.
3. Teachers' responses to change.

Phase 5- Interviews with six participants. Reflexive thematic analysis was also used to analyse the data from the phase 5 interviews. The transcripts were transcribed and read

several times to familiarise myself with the data. The transcripts were entered into MAXQDA to generate codes and develop themes. Like phase 3 data analysis as discussed above, the six steps of TA are outlined in the appendix. The codes for this phase are illustrated in appendix 6 along with a description of their meaning and number of times the codes appear in the transcripts. Appendices 7 and 8 outline the codes collated into potential themes followed by defining and naming the themes.

Two themes emerged from this data analysis and are reported below.

1.   Social Value. The sharing of resources, ideas and practices.

2.   Collaboration.

4.7.3 Data analysis of documents

The semi-structured interviews and questionnaires were the main source of data analysis in this study. The documents were used to corroborate findings of the interviews (Yin, 2009) and therefore provided triangulation of evidence. This evidence was a result of the interviews rather than a deliberate analysis of the documentation.

I collected documents such as the programme modules, aims and content. The documents were checked against the data from the interviews. For example, participants reported their experiences of the content of modules. I cross checked this information with each module.

4.8 Ethical considerations

Validity and reliability are concerns that can be addressed by carefully defining the study and the methods for collecting, analysing, interpreting, and presenting results. The challenge is the wide range of case study research, which results in varying validity and reliability standards (Creswell et al., 2018).

With case study, the researcher is often privy to confidential or sensitive material. The researcher needs to be clear on the ethics of the research, on their own stance, whether to report individuals anonymously or to identify them and how to incorporate specific, important features into a multi-site study (Cohen et al., 2011; Yin, 2009). Yin (2009) calls for a "chain of evidence" to be provided, such that an external researcher could track through every step of the case study from its inception to its research question, research design, data sources, instruments, data and conclusion. In this next section, I will address the reliability and validity of the study along with my position. In this multi-site case study, I conducted the data collection of the Stages of Concern Questionnaires and all the semi-structured interviews allowing me to make analysis of the phenomenon under the study.

4.8.1 Validity

Merriam and Tisdell (2016) outline specific strategies researchers can employ to address validity concerns. These strategies include triangulation, reflexivity, adequate engagement with the data and the use of a critical friend.

4.8.1.1 Triangulation

Triangulation provides an important way of ensuring the validity of case study research and must have at least two sets of data that describe the phenomenon in question. In addition to using the stages of concern questionnaire and semi-structured interviews data collection tools, data sources such as documents can be considered for triangulation. Each of these sources involves an unique approach to interrogation and is likely to provide a different set of results. Each source has its own set of strengths and weaknesses, and the case study evidence richness depends in significant part from the different insight obtained by integrating different sources of data. In a multi-site case study triangulation is adopted with real life events that show numerous sources of evidence through replication rather than sampling logic (Cohen et al., 2011; Creswell et al., 2018; Yin, 2009).

To provide an accurate picture of this multi-site case study, I used three sources to support triangulation: (1) analysis documents and reports from the Instructional Leadership Programme, (2) the theoretical and conceptual framework that informs the research design, (3) data from the Stages of Concern Questionnaires and data from two phases of interviews (Phase 3- all fifteen participants and phase 5 – six participants). Using two sets of empirical data in this study, provide for similar perspectives but also provide different viewpoints (for examples the data on the SoCQ provided information on teachers concerns and the phase three interviews provided an opportunity to probe the participants further on this data).

4.8.1.2 Reflexivity

I practised reflexivity by identifying myself within the research (Cohen et al., 2011).

Outlining the reflexivity I engaged with in this study is crucial due to the social and

political context of the study and my involvement with the ILP and several participants.

This in turn introduces a number of ethical and personal issues into the process (Cohen

et al., 2011; Creswell et al., 2018; Locke et al., 2013).

To address those ethical concerns, I engaged in reflexivity. Reflexivity is the process

of reflecting critically on one's role as a researcher. Cohen et al. (2011) states reflexivity

is where the researcher is "their own selves in the research, seeking to understand their

part in, or influence on, the research" (p. 225). I had to make the decision to ensure that

my "emotions, attitudes, beliefs, values and characteristics" (Cohen et al., 2011 p. 224)

did not influence the research.

Reflexivity often emerges in the discussion of interpretivism and social

constructionism. They provide a lens to study individual perceptions and social

placement impact upon research. Interpretivists reflect on their cultural stance with

social constructionists reflecting on the social placements that influence what the

interview participants are willing to share and the phenomena under study. This

provides an understanding of the contexts and phenomenon under study (Cohen et al.,

2011; Creswell et al., 2018).

As I reflect on my role as a researcher in this study, I am aware of the relationship

between myself and some of the participants. Glesne (2016) describes this situation as

"Backyard" research where the researcher uses one's own organisation or participants from an immediate work setting. There are two dimensions where this occurs in this research. First, four of the participants that signed up to this research work in the same post-primary school as myself. I am Deputy Principal in the school and the teachers may view me as an authority figure. As they are within my professional connections, close working relationships exist already. To obtain consent and support these potential participants I thoroughly explained what is involved in the research in a one-to-one meeting. Throughout the process I regularly reminded them that they can withdraw their consent at any point, including after the interview. I provided each participant in this study with the option of obtaining a copying of their interview transcript and SoC data. No participant requested this information. With the participants from my school, I presented a copy of the interview transcript to ensure my interpretations of the data accurately reflect the participants' views. I invited them to read and identify any text in the transcript that they felt was transcribed incorrectly or should be reframed differently. I spoke with them individually about each SoC score and explained in detail to them what it meant.

Second, I am a member of the Steering Committee of the Instructional Leadership Programme. I am aware of the potential for problems with being seen as an insider. This may have led to informant bias with some participants conscious of reporting information they thought I wanted to hear instead of expressing their own opinion (Cohen et al., 2011). The teachers I interviewed may have felt that any negative comments or emotions they shared with me about the programme might have been viewed unfavourably. I informed them at the outset and throughout that they have the right to withdraw from the study at any time. I will protect the identity of the

participants and schools that they work in with pseudonyms. Due to those two dimensions, I have a responsibility to ensure the data I collect for this study will not be compromised and the information I collect will not put the participants at risk.

4.8.1.3 Adequate Engagement with the Data

Creswell & Miller (2000) believes addressing areas of validity such as trustworthiness, authenticity and credibility are crucial to ensure reflexivity. First, I need to clarify the bias I may carry with this study. As outlined above there are two dimensions related to this study that may carry bias and potential power relationships: (1) several participants from my school are involved in the research and (2) I am a member of the Steering Committee of the ILP. Due to these two dimensions some of the participants may have viewed me as an "insider" (Mercer, 2007). Although, as Mercer points out, the participant's perception of the researcher as an insider can vary, and I might have been considered an insider for certain topics or interviews but not for others. This may have resulted in informant bias, in which participants make comments that they believe the researcher needs to hear, whether consciously or unconsciously. To obtain consent and support with participants and to ensure the informant bias doesn't occur I explained what is involved in the research in a one-to-one meeting. To support this thorough explanation, I provided participants with a hardback copy of the information sheet and allowed the participants to take it away with them and decide if they would like to take part in the research. Throughout the process I regularly reminded them they could withdraw their consent at any point, including after the interview. I stated this again at the start of the interview and at the end. I made it clear to the participants that they are able to choose freely whether to participate or not, without any adverse consequences and all information was treated confidentiality.

Second, the use of qualitative reliability. This involves documenting the steps involved in the collection and analysis of the data (Yin, 2009) and several steps were followed to ensure this. (1) To ensure qualitative reliability several code books were developed to document the steps of the data collection and analysis (see appendix 1-6). (2) The qualitative transcripts were checked several times to ensure there were no mistakes during transcription. I was dedicated to compiling a detailed and thorough account of the research field by analysing participants' perspectives and interaction to determine the degree to which the ILP influences participants' activities (Creswell, 2008). (3) each code in the qualitative interviews was given a definition and the codes were constantly cross-checked to ensure they didn't drift. I discussed above the inductive approach to coding and theme development I used to ensure my positionality in the data analysis did not comprise the findings.

4.8.1.4 Gatekeeper

The Chair of the ILP steering committee acted as a gatekeeper for this study. The Gatekeeper of the Programme is tasked with protecting information about the programme. As the information I was exploring discusses teaching practices and experiences it may potentially share data that should not be available outside of participants schools. To avoid this, a gatekeeper meeting was conducted to explore how the data is not going to be traceable back to any school.

I adopted reflexivity by ensuring that my personal opinions were not shared with the participants. This necessitated constant monitoring of researcher reactions that could

influence the study, which is essential for preserving trustworthiness (Cohen et al., 2011; Hammersley, 2007).

4.8.1.5 Critical Friend

To enhance the accuracy of the study process and findings, I engaged with a colleague who has completed her doctoral studies and is a graduate of the ILP. My critical friend was presented with the SoC data and the analysed data of the interviews to ensure the findings were plausible based on the data. As a result, the validity of the study was reinforced by this technique, which advocated for an interpretation that was not limited to the researcher (Creswell et al., 2018). The critical friend also examined draft chapters and questioned my methodological approach and theoretical framework, providing an outsider's perspective on how the presentation of findings.

4.8.2 Reliability

The extent to which the data and conclusions gained from a case study could be replicated if the research were undertaken again is referred to as reliability. In case study research, reliability is usually addressed using two techniques: triangulation and an audit trail (Mills et al., 2010). I discussed triangulation above.

4.8.2.1 Audit Trail

An audit trial allows for the documentation of the research process, including how and why data was gathered, how data was analysed, and any other decisions or considerations relating to the data, results, or conclusions reached. Such documentation contains enough information for another researcher to review the data collected and

analysis process and not only comprehend what the original researcher did and why, but also reach similar findings (Mills et al., 2020).

During the interview collection phase, I recorded comments and notes in a notebook. I noted my thoughts about coding, providing a rationale for why I merged codes and provided a definition for themes. This audit tail provides evidence of the decisions I made regarding theoretical and methodological issues throughout the study (Cohen et al., 2011). Appendix 15 outlines the procedures I used in the Audit Trail.

4.8.3 Ethical Review

The study was conducted within the guidelines of Maynooth University Social Research Ethics Sub-Committee. I received ethical approval under Tier 2-3 Ethical Review of a Research Project Involving Participation of Humans (appendix 11).

My application outlined the ethical issues involved in this study and provided a description of the risks/benefits analysis along with the power relationships that occur in this study. I reported above the steps I took to address those power relationships. In this next section I will outline the issues for ethical consideration I adopted in this study to include informed consent procedures, confidentiality, and data storage and usage. Each item is addressed below.

4.8.3.1 Informed consent procedures

It will be imperative to ensure informed and continued consent was at the forefront of my work throughout this study. I ensured all participants were fully aware of what my research involves. Each participant received an information sheet and consent form on

the study detailing the process and the aims of the research. I met with all participants prior to starting the research with an one on one meeting to allow them to respond to any potential concerns or issues relating to the information sheet or the consent form. I informed them at the outset and throughout that they have the right to withdraw from the study at any time. I protected the identity of the participants and schools that they work in with pseudonyms. All participants signed their consent form and returned to me prior to data collection.

4.8.3.2 Confidentiality

Another ethical issue revolves around confidentiality. In this study, participants engaged in one-on-one interviews revealing professional information on their practice, beliefs, emotions and practices in their school. Therefore, it was crucial to maintain confidentiality so as to ensure the protection of this professional information.

I adhered strictly to the need for anonymity, using pseudonyms to protect the identity of participants and their schools. All pseudonyms were written in a notebook and this was securely locked in a cabinet.

4.8.3.3 Data Storage

Interview data and SoC data was stored on my personal laptop and uploaded to an encrypted shared drive (Maynooth University Microsoft OneDrive). The laptop was further encrypted using BitLocker encryption. It is protected by security passwords and additionally I took precautionary measure to ensure that the devices remain safe on my person or locked in a secure place.

Two notebooks were used during this process, one to record the pseudonyms of the participants and their school and the second notebook was used to record observations during interviews and comments on the data analysis phase. Both were locked in a secure cabinet.

The data is stored in a secure and accessible format and will be retained for 10 years to allow future validation (if necessary) of the data from the primary source. At the end of the ten years, I will shred all the data, including all the manual data (transcripts and notebooks) and reformat the electronic data.

4.9 Conclusion

This chapter provided an overview of the methodological approaches used in this study. A multi-site case study approach was used in this study to answer the research questions supported by the theoretical framework. The data collection procedures include details of the five phases were outlined along with the data analysis for each method. The chapter also discussed the ethical considerations along with the validity and reliability for each method.

Chapter 5. Findings

5.1 Introduction

In this chapter the research findings are presented and explored with the discussion of the findings presented in the following chapter. Keep in mind that this study is a multi-site case study, with the data collected in five phases. Those five phases are identified below.

1. The SoCQ was administered to the fifteen participants at the beginning of session two of the Instructional Leadership Programme in October 2019.
2. At the beginning of session three of the ILP (March 2020), the fifteen participants completed the SoCQ.
3. Semi-structured interviews were conducted with the fifteen participants between March 2020 and September 2020.
4. An online SoCQ was administered to the participants in June 2020.
5. Six participants with a peak score Stage 5- Collaboration were interviewed to examine their perception of collaborating with others in implementing instructional practices from the ILP.

I will start by reviewing the purpose of the study and then shift into explaining the research aims, followed by the related research questions used in this study. The purpose of the study is to determine the experiences of fifteen post-primary teacher's in implementing new instructional practices, learned as a result of their engagement in a professional development programme.

As discussed in the Methodology chapter, concerns and emotions are evidence of the experience's teachers during a change. To address the research questions, the Stages of Concern Questionnaire was used to address the teachers' concerns of implementing new instructional practices and semi-structured interviews were conducted to gain a deeper understanding of those experiences. The interviews also discovered the factors (surrounding context) that influence or hinder teachers in implementing instructional practices from the programme. This chapter presents an analysis of the data collected and it sets out to address the research aims and questions. A reminder of those research aims and questions are outlined below.

1. To understand the experiences of teachers changing their instructional practices from a professional development programme.

2. To understand the influence of school context on teachers implementing instructional practices.

The following research question and two sub-questions were asked to collect the relevant data.

What are the factors that enable or hinder teachers changing instructional practise from a professional development programme?

Sub questions related to the main research question include:

1. What are the experiences of teachers implementing new instructional practices?

2. How does school context support teachers' change their instructional practices?

The findings will be presented and discussed in three broad areas: (1) the personal nature of change; (2) the design of the programme and (3) the contextual factors to support or hinder change. The data will be descriptive and will be reported through the lens of each case from the themes or patterns to emerge from teachers' responses. The themes and subthemes associated with those board areas are presented in table 5.1. The themes presented in the table are derived from the Stages of Concern Questionnaires and the semi-structured interviews. The data from the phase 5 interviews will be discussed later in this chapter.

Table 5.1 Themes and subthemes

The personal nature of change	The design of the programme	The contextual factors to support or hinder change
Theme 1 Teachers' responses to change.	**Theme 2 Design of the programme involving the presentation of theory and demonstration.**	**Theme 3 Factors surrounding school context that support or hinder change.**
Subtheme 1. Teachers concerns regarding implementation 2. Teachers' emotional responses to change	**Subtheme** 1. Structure and Design of the Programme 2. Peer Coaching	**Subtheme** 1. Teacher Agency 2. Collaboration 3. Engagement and support of leaders during the process 4.Changes in practices and beliefs 5. Time 6. Teacher's perceptions of students' experience

Documentary evidence from the programme was used to triangulate all findings. I crossed checked all data to the modules of the programme to ensure accuracy.

In this next section I provide an overview of the findings of teachers' experience in each school case. Table 5.2 provides a summary of the relationship between SoC data and the interview data as it relates to teacher experience in each school.

Table 5.2 A summary of the SoC data and the semi-structured interviews data

Participant	Phase 1		Phase 2		Phase 4		Phase 3				
	Peak Score	2nd High Score	Peak Score	2nd High Score	Peak Score	2nd High Score	Emotional experiences	Programme design	Factors to support or hinder change		
									Individual features	Peer team features	School features
School A											
Kate	0	5	5	0	5	1	Mix of positive and negative emotions. Negative emotions overcome by programme, individual and school structures. Impact- Consequence evident during implementation. Positive Relationship with colleagues.	Extended period of time supported implementation. Positive engagement with the cyclical nature of the programme. The theory of the programme aligned with junior cycle reform supporting teachers with the reform agenda. Adequate time between sessions supported implementation. Modelling supported implementation.	High Teacher Agency. Habit hindered change. Time was a challenge for the teachers in the school.	Valued the structural opportunities for collegial activity. Peer coaching support collaboration and implementation. Strong communication between the peer team.	School Leader skilled in the knowledge of the ILP. Strong collaborative cultures evident in the school to support change (Cosán workshops) Previous teachers completed the ILP.
Mia	2	1	2	5	0	6					
Grace	5	1	5	1	5	1					
Ava	0	5	0	1	0	1					
Overview of the phases.	Concern with Collaboration (high). Concern with impact.		Concern with Collaboration (high). Concern with impact.		Concern with Collaboration (high). Concern with impact.						

	Phase 1		Phase 2		Phase 4		Phase 3				
	Peak Score	2nd High Score	Peak Score	2nd High Score	Peak Score	2nd High Score	Emotional experiences	Programme design	Factors to support or hinder change		
Participant									Individual features	Peer team features	School features
School B											
Mairead	5	1	5	1	5	1	Mix of positive and negative emotions. Range of concerns evident- Personal, Consequence and Collaboration. Negative emotions overcome by programme, individual and school structures. Positive relationships with colleagues	Extended period of time supported implementation. Positive engagement with the cyclical nature of the programme. Adequate time between sessions supported implementation. Modelling supported implementation. More support required with reflection.	High Teacher Agency. Time was a challenge.	Valued the structural opportunities for collegial activity. Peer coaching support collaboration and implementation. Good communication between the peer team.	Two school leaders skilled in the ILP established collaborative cultures in the school to support implementation. Collaborative cultures supported change (Breakfast Clubs, peer observations and Teach Meets).
Sophie	5	1	5	1	5	1					
Molly	5	1	5	1	5	1					
Overview of the phases.	Concern with Collaboration (high).		Concern with Collaboration (high).		Concern with Collaboration (high).						

Participant	Phase 1		Phase 2		Phase 4		Phase 3				
	Peak Score	2nd High Score	Peak Score	2nd High Score	Peak Score	2nd High Score	Emotional experiences	Programme design	Factors to support or hinder change		
									Individual features	Peer team features	School features
School C											
Hannah	5	1	5	1	5	1	Mix of positive and negative emotions. Concerns indicate a high level of cooperation and cooperation. Positive relationships with colleagues.	Extended period of time supported implementation. Positive engagement with the cyclical nature of the programme. The theory of the programme aligned with junior cycle reform supporting teachers with the reform agenda. Adequate time between sessions supported implementation. Modelling supported implementation. Lesson planning supported teachers. More support required with reflection.	Mid Teacher Agency. Time was a challenge.	Valued the structural opportunities for collegial activity. Peer coaching support collaboration and implementation. Good communication between the peers team.	Deputy Principal attending the programme supported implementation. Collaborative structures in place to support learning.
Emma	0	1	0	0	0	5					
Aoife	5	1	5	0	5	1					
Overview of the phases.	A mixed of high collaboration and high personal concerns.		A mixed of high collaboration and high personal concerns.		A mixed of high collaboration and high personal concerns.						

Participant	Phase 1		Phase 2		Phase 4		Phase 3				
	Peak Score	2nd High Score	Peak Score	2nd High Score	Peak Score	2nd High Score	Emotional experiences	Programme design	Factors to support or hinder change		
									Individual features	Peer team features	School features
School D											
Ella	0	5	0	0	0	2	Predominantly negative emotions linked to Stage 0 and Stage 2 of SoC. Evidence of a lack of implementation. Poor team relationship affecting implementation. Linked to Stage 0 and 2 concerns.	Extended period of time frustrated teachers. Complex nature of the theory hindered teachers initially. Lesson planning supported teachers.	Low- Teacher Agency. Pat experiences shaped teachers' beliefs.	Poor engagement in the peer teams- relationships, time and space hinder progress.	The school's principal's workload has a negative impact on her implementation. Time hinders implementation.
Lucy	2	1	2	1	2	1					
Overview of the phases.	High-self concerns		High-self concerns		High-self concerns						

Participant	Phase 1		Phase 2		Phase 4		Phase 3				
	Peak Score	2nd High Score	Peak Score	2nd High Score	Peak Score	2nd High Score	Emotional experiences	Programme design	Factors to support or hinder change		
									Individual features	Peer team features	School features
School E											
Jack	2	1	0	0	0	3	Negative emotion inhibiting teachers with implementation. The emotions are linked with high personal concerns. Poor relationships among the team.	Extended period of time frustrated teachers. Complex nature of the theory hindered teachers initially.	The three teachers were concerned about the perception of students to a change in practice. Classroom management was linked with a concern. Low teacher agency.	Poor engagement in the peer teams- relationships, time and space hinder progress.	Time hinders implementation.
Lily	2	1	2	1	0	3					
Chloe	2	1	2	1	0	3					
Overview of the phases.	Low Self-concerns		Low Self-concerns		Low Self-concerns						

5.2 The personal nature of change

In this section I will report the themes and patterns to emerge from the participants on the personal side of change. I will start with discussing the concerns the participants have from each school have, as expressed over the three phases of data collection using Stages of Concerns Questionnaires. I will follow with a discussion on teachers' emotional responses to change.

5.2.1 Participants' concerns expressed in three phases of the ILP

Examining teacher concerns quantitatively provides insights into teacher concerns over a period. SoCQ was administered at three points over the course of a year and a half of teachers engaging with the ILP, to provide insights about how teachers' concerns change over time. Phase 1 of SoCQ was administered at the start of session two of the ILP (October 2019) with phase 2 of SoCQ administered at the start of session three of the ILP (March 2020). The final phase three was administered as an online survey in June 2020. The expressed concerns were classified into the levels of concern as outlined by Hall and Hord (2015).

Data collected from each phase included peak score and second highest stage score. Examining both the highest and second highest stage scores makes possible a more detailed interpretation of teachers' concern at a particular time. As teachers continue through the change process, concerns in the earlier stages, *self,* should reduce and concerns in the later stage, *impact* should increase. The higher the score, the more intense the concerns are at that stage. The lower the score, the less intense the concerns at that stage (George et al., 2013; Hall & Hord, 2015). All results are reported as per

the Measuring Implementation in Schools: The Stages of Concern Questionnaire manual (George et al., 2013).

SoC individual and group profiles are a useful indicator of movement and non-movement during a change process. By collecting the SoC data at various times, it will provide a snapshot of movement and hopefully provide an illustration of how concerns evolve and develop over time (Hall & Hord, 2015). For this study, SoC data was collected, and individual and school group profiles were generated during three different phases of the study, as outlined above, to gain a snapshot of the participants' concerns during the change process. The three phases will be reported collectively for each data analysis by each case.

5.2.2 Participants' and school cohort highest level of concern

The Concern Based Adoption Model refers to the highest score stage as *peak stage* score. Peak Stage is the highest intensity experienced by participants among the seven concerns: Unconcerned, Informational, Personal, Management, Consequence, Collaboration and Refocusing. In this study, peak score reports the highest intensity of concern at a particular time of the participants when implementing the new instructional practices.

5.2.2.1 School A peak and second highest stage score

Table 5.3 School A frequencies for teachers' highest score stages of concern scores

	Stage 0 Unconcerned	Stage 1 Informational	Stage 2 Personal	Stage 3 Management	Stage 4 Consequence	Stage 5 Collaboration	Stage 6 Refocusing	Total
Phase 1- Number of SoCQ Participants	2 Kate Ava	0	1 Mia	0	0	1 Grace	0	4
Phase 2- Number of SoCQ Participants	1 Ava	0	1 Mia	0	0	2 Kate Grace	0	4
Phase 4- Number of SoCQ Participants	2 Mia Ava	0	0	0	0	2 Kate Grace	0	4

Two teachers (Kate and Ava) had a peak stage of concern for *phase one* as Stage 0- *Unconcerned*, classified as *Unrelated*. When a teacher is in the unrelated stage, they are not interested in the change at all. To develop further insights into the dynamics of concerns, the second highest concern is analysed to give an additional indication of concerns. Both teachers scored Stage 5- *Collaboration*, indicating teachers are concerned about learning more about the innovation from other people. This data would reveal the teachers are prepared to move from the *Unconcerned* stage with the support of colleagues to learn more about the ILP instructional practices.

One teacher (Mia) indicated a peak score at Stage 2 *Personal,* which is classified as *self*. Participants at this stage are aware of the change initiative but are unaware of their role in the process. Typically, a participant at the self-stage is concerned about how the change is affecting them. The participant is concerned about their ability to complete the tasks required for the change and what others will think of their ability (Hall & Hord, 2015). Analysis of Mia's second highest peak score reveals she has a general awareness of the ILP instructional practice and is interested in learning more details about substantive aspects of the instructional practice, such as general characteristics, effects and requirement for use.

One teacher (Grace) scored Stage 5 *Collaboration,* is classified as *impact* concerns. Impact concerns focus on the student and what the teacher is doing to improve student learning. A teacher exhibiting *Collaboration* is focused on coordination and cooperation with others regarding the innovation (Hall & Hord, 2015). Rogers (2003) and Fullan (2016) both agree it takes 3-5 year for change to occur and be implemented into practice. CBAM literature reports it can take up to three years to move from self-concerns to task concerns and 3-5 years to move to impact concerns (Collaboration) (Hall & Hord, 2015). Kate's second peak score reveals a Stage 1 *Personal*. This score indicates a general awareness of the ILP instructional practice and are interested in learning more details about it. Further examinations of the peak and second highest score indicate the reasons Kate wants to collaborate is to gain more information about the use of the innovation.

A similar trend occurs in *phase 2* with the peak stage scores. Ava, Mia and Grace all report the same peak stage score from *phase 1*. Kate's peak stage score has moved from

Stage 0-*Unconcerned* to Stage 5- *Collaboration*. Kate's second peak score in *phase 1* was Stage 5 *Collaboration*. This revealed she was concerned about learning more about the innovation from other people. The movement from Stage 0 to Stage 5 would acknowledge Kate is learning more about the instructional practices from colleagues to support her to move to Stage 5.

An analysis of the second highest scores informs a movement of scores for three teachers. Grace's second highest score remains the same as *phase 1* (Stage 1). She is continuing to seek further information about the ILP instructional practices. Mia's second highest score is Stage 5- *Collaboration*. This reveals she is concerned about learning more about the innovation from other people. Ava's second highest score is Stage 1-I*nformational*. Combined with the peak score Stage 0 this acknowledges Ava is an experienced user who is actively concerned about the innovation. Kate's second highest score is Stage 0- *Unconcerned*. This score suggests a desire to learn from other know and are doing, rather than a concern for leading the collaboration.

An analysis of the both the peak and second highest score for *phase 2*, the teachers in School A have started to actively seek to collaborate amongst themselves or others. They are seeking further information about ILP practices, learning about practices from one another and have a high level of concern about the ILP practices.

In *phase 4* there are a number of similar trends. Kate and Grace continue to record Stage 5- *Collaboration*. They are continuing to work with others regarding their use of the innovation. They both record a second highest scores Stage 1-*Personal*. They continue to have intense involvement with the innovation. Both Mia and Ava report a peak stage

score Stage 0- *Unconcerned* in this phase. They are reporting little concern or involvement with the innovation. Their second highest score is Stage 6 Refocusing (Mia) and Stage 1- *Personal* (Ava). Ava is continuing to report Stage 2- *Informational,* this suggests is have actively concerned about the implementation of ILP practices.

When the findings are examined to the developmental dimension of the SoC framework, the findings reveal information about the design and implementation of the ILP. As discussed above, it takes 3-5 years for change to be implemented by participants (Hall & Hord, 2015). Having two participants develop to the *Collaboration* Stage after a year and half reveal the change process has been facilitated with the other two teachers reporting a high level of concern about working with colleagues to learn more about the practices. The findings outline the four teachers are working toward implementation as a cohort and implementation of the instructional practices is occurring.

5.2.2.2 School B peak and second highest stage score

The peak scores for teachers in School B are illustrated in table 5.4. All three teachers (Mairead, Sophie and Molly) record a peak stage of concern for *phase one, two and four* as Stage 5- Collaboration. Stage 5 Collaboration is classified as *impact* concerns. Impact concerns focus on the student and what the teacher is doing to improve student learning. This score reveals the three teachers are implementing the instructional practices. Rogers (2003) and Fullan (2016) both agree it takes 3-5 year for change to occur and be implemented into practice. CBAM literature reports it can take up to three years to move from self-concerns to task concerns and 3-5 years to move to impact concerns (Collaboration) (Hall & Hord, 2015). The findings suggest there is a high level

of collaboration among the three teachers. Implementation of an innovation depends upon culture that values support and expects knowledge sharing (Fullan, 2016). This appears to be happening with these four teachers. The semi- structured interviews will explore those details further.

The teachers all scored a second highest score Stage 1- *Informational*. Participants at stage five have started working with others and discussing their opinions of the innovation. At this stage participants are beginning to regard how their colleagues are implementing the innovation and begin to seek this information and this is discussed further in phase five findings. The second highest score (stage 1) teachers indicate a general awareness of the ILP practices and are interested in learning additional details about it. Further examinations of the peak and second highest score indicate the reasons participants want to collaborate is to gain more information about the use of the innovation.

Table 5.4 Schools B frequencies for teachers' highest score stages of concern scores

	Stage 0 Unconcerned	Stage 1 Informational	Stage 2 Personal	Stage 3 Management	Stage 4 Consequence	Stage 5 Collaboration	Stage 6 Refocusing	Total
Phase 1- Number of SoCQ Participants	0	0	0	0	0	3 Mairead Sophie Molly	0	3
Phase 2- Number of SoCQ Participants	0	0	0	0	0	3 Mairead Sophie Molly	0	3
Phase 4- Number of SoCQ Participants	0	0	0	0	0	3 Mairead Sophie Molly	0	3

When the findings from School B are explored to the development dimensions of SoC framework, the finding reveal information about the structure and design of the ILP. The three teachers are collaborating to learn more about the practices and seeking to learn what others are doing in their classroom. They are at implementation phase. It takes 3-5 years for change to be successful (Hall et al., 2015) these three teachers are at implementation phase after a year and a half. A feature of the ILP to support this is peer coaching. Also, the opportunity for the three teachers to attend a professional

development programme as a team for a sustained period of time helps to develop collaboration.

5.2.2.3 School C peak and second highest stage score

The peak stage of concern for *phase one, two and four* for Aoife and Hannah are Stage 5- Collaboration. The teachers are focused on coordination and cooperation with others regarding the innovation (Hall & Hord, 2015). Further analysis of the peak score against the second highest score reports the reasons teachers want to collaborate are varied and range across two other stages. Hannah scored a Stage 1- *Informational* for *phase 1, 2 and 4*. This reports she has a desire to learn from what others know and are doing, rather than a concern for leading. Aoife's scored Stage 1- *Informational* in *phase 1*, Stage 0 *Unconcerned* in *phase 2* and Stage 1 *Informational* in *phase 4*. Aoife moves from a desire to learn from others, to a willingness to collaborate about any issue regarding the use of the innovation and returning to a desire to learn from others. This finding recognises change is non-linear and is a cyclical process (Hall t al., 2015; Fullan, 2016).

Table 5.5 Schools C frequencies for teachers' highest score stages of concern scores

	Stage 0 Unconcerned	Stage 1 Informational	Stage 2 Personal	Stage 3 Management	Stage 4 Consequence	Stage 5 Collaboration	Stage 6 Refocusing	Total
Phase 1- Number of SoCQ Participants	1 Emma	0	0	0	0	2 Hannah Aoife	0	3
Phase 2- Number of SoCQ Participants	1 Emma	0	0	0	0	2 Hannah Aoife	0	3
Phase 4- Number of SoCQ Participants	1 Emma	0	0	0	0	2 Hannah Aoife	0	3

Emma's peak stage score for *phase 1. 2 and 4* is Stage 0 *Unconcerned*. At this stage there is little concern or involvement with the innovation. Stage 0 does not provide information about participants being a user or a non-user, demographic data and other information is required to determine if an individual is using the innovation (George et al., 2013). The semi-structured interviews provide additional information of the participants in Stage 0. Emma's second highest score for *phase 1* is Stage 1- *Informational*, *phase 2* is Stage 0- *Unconcerned* and *phase 4* Stage 5- *Collaboration*. Emma concerns indicate she is an experienced user who still is actively concerned about the new practices, she then shifted to having no concerns about the practices and finally moved to intense involvement with the practices. Emma experiences a cycle of concerns over the three phases (Fullan, 2016; Hall et al., 2015).

Linking the findings to the SoC dimension framework reveals information on the design and structure of the ILP. Two teachers (Hannah and Aoife) have successfully implemented the new practices in their classroom. Both have benefited from the peer coaching they received from the team of teachers attending the programme together. Emma has experienced a number of concerns over the three phases. The shift between the concerns is supported by the ILP. A key feature of design to support Emma with change is the sustained period of the programme, four sessions over two years.

5.5.5.4 School D peak and second highest stage score

Two teachers from school D are attending the ILP. Lucy's peak score for *phase 1, 2, and 4* is Stage 2- *Personal*. Personal concerns are related to self and indicate uncertainty about the demands of making change and how this relates to the teachers' role within the school. Hall et al., (2015) report that personal concerns are usually in the early stages of change and indicate individuals are concerned about potential conflicts with others around the innovation. An analysis of the second highest score reveals Lucy is an individual who wants more information about the innovation.

Table 5.6 Schools D frequencies for teachers' highest score stages of concern scores

	Stage 0 Unconcerned	Stage 1 Informational	Stage 2 Personal	Stage 3 Management	Stage 4 Consequence	Stage 5 Collaboration	Stage 6 Refocusing	Total
Phase 1- Number of SoCQ Participants	1 Ella	0	1 Lucy	0	0	0	0	2
Phase 2- Number of SoCQ Participants	1 Ella	0	1 Lucy	0	0	0	0	2
Phase 4- Number of SoCQ Participants	1 Ella	0	1 Lucy	0	0	0	0	2

Ella's peak score for all three phases is Stage 0- *Unconcerned*. The score reports Ella has little concern or involvement with the innovation. An analysis of the second highest scores reports Ella has cyclical concerns for the three phases. It reveals Ella has no concern with the innovation, to wanting more information about the innovation, returning to having no concern about the innovation.

Stage 0 does not provide information about a participant being a user or a non-user and demographic data and other information is required to determine if an individual is using the innovation (George et al., 2013). Exploring both teachers concerns for the three phases suggests they are inexperienced users of the practices and are in the very early stages of using the innovation.

The insights into individual profiles are important for the ILP as it can provide intervention and support for participants and the information can be used to inform other professional development programmes. The low scores and lack of movement will allow the organisers of the ILP to use this knowledge of peak scores and second highest scores to support those teachers with specific intervention to move past Stage 0 and Stage 2. As discussed earlier, CBAM literature reports it can take up to three years to move from self-concerns to task concerns and 3-5 years to move to impact concerns. Phase 4 SoCQ was taken a year and a half into the study, but over two years since the participants started the ILP. By phase 4 there is an expectation that some participants would start to move from Stage 0 and 2 to a later stage.

5.2.2.5 School E peak and second highest stage score

The peak score for all three teachers in *phase 1* is Stage 2- *Personal*. Personal concerns relate to *self* and indicate the teachers are uncertain about the demands the practices are placing upon themselves, how it relates to their roles are teachers and the school. The three teachers all recorded a Stage 1- Information as their second highest score. These concerns reflect uneasiness regarding the innovation, they do not necessarily indicate a resistance to change.

Table 5.7 Schools E frequencies for teachers' highest score stages of concern scores

	Stage 0 Unconcerned	Stage 1 Informational	Stage 2 Personal	Stage 3 Management	Stage 4 Consequence	Stage 5 Collaboration	Stage 6 Refocusing	Total
Phase 1- Number of SoCQ Participants	0	0	3 Jack Lily Chloe	0	0	0	0	3
Phase 2- Number of SoCQ Participants	1 Jack	0	2 Lily Chloe	0	0	0	0	3
Phase 4- Number of SoCQ Participants	3 Jack Lily Chloe	0	0	0	0	0	0	3

Lily and Chloe continue to report Stage 2- *Personal* as their peak scores for *phase 2*. and Stage 1- *Informational* as their second highest score. They continue to report an uneasiness about the change in practices. Jack's peak score for phase 1 is Stage 0- Unconcerned. He has shifted to having little or no concern about a change in his practice. An analysis of his second highest score reveals he is continuing to have no concern about the innovation (Stage 0).

The three teachers report a peak Stage 0- *Unconcerned* for *phase 3*. All three record a second highest score Stage 3- *Management*. Those findings report they continue to be

unconcerned with the change in their instructional practice but would like to spend time on the practices.

This peak and second highest profiles indicate the three teachers have a possible negative reaction to implementing the instructional practices. Hall and Hord (1987) express that non-user of an innovation are likely to have a high Stage 2, Personal concerns, with the participants' concerns more likely to interfere with them learning more about the innovation. The CBAM literature reflects participants with a high Stage 2 may not be able to consider implementing the instructional practices until their personal concerns have been lessened. Keep in mind at this stage, participants with intense personal concerns might obstruct more substantive concerns about implementing instructional practices. This appears to be happening in School E. The teachers have personal concerns that are also linked to Stage 0- Unconcerned. They require support from the ILP and the school to lessen their concerns to start implementing the practices.

5.2.2.6 Summary of the concerns

In summary, the use of the SoC was a useful indicator of the concerns of teachers involved in changing their practice and has been useful to provide individual and group profiles on teachers' concerns. This section of this study offers insights into teachers' concerns of implementing instructional practices from the ILP. As stated earlier, this study is focused on five schools with fifteen teachers engaging in the ILP over a year and a half. Although the longitudinal compliment is limited, this study is suggestive of some time-related considerations. CBAM literature documents dominant concerns in a single stage at a given time and a quasi-development path to concerns as the change

187

process unfolds. CBAM theory points out when the innovation is appropriate to the setting, sufficient time is given to implementation, and it is supported by school leaders, as well as, facilitated correctly, then teachers will move from *self*-concerns to *task* concerns during the first year. They will move to *impact* concerns within 3 to 5 years (Hall et al., 2015). A summary of the findings for each school is provided below.

School A peak and second high scores report the teachers are working towards implementation of the instructional practices. There is evidence of high-level collaboration among the teachers. They are seeking to work with one another to learn more information about the practices. The data indicates there are school-based activities in place to support the teachers with implementation. The peak and second highest score in School B reveal the teachers experience a high level of collaboration. Similar to School A there is evidence of school-based activities to support implementation. School C reports two teachers implementing the practice with a mid-level of collaboration. One teacher has experienced cyclical concerns over the three phases and additional interventions is required. School D teachers expressed high self-concerns. They are starting to use the new practices but have uncertainty about the use of the instructional practices. School E are experiencing low self-concerns. They are having intense concerns and those concerns are impacting the teachers using the practices.

The SoC provides useful information on the concerns of the participants, but the findings are limited in terms of better understanding the effect change has had on participants experiences. To get a better understanding of those issues all participants were interviewed on the emotional aspects of the change process. The findings of this

study will provide a more in-depth perspective of the participants' personal emotional experience of educational change associated with a professional development programme.

5.2.3 Emotional response to change

In this next section I will present the findings teachers expressed in phase three of the data collection, the semi-structured interviews, on their emotional experiences during their attendance at the professional development programme, on returning to school to implement the practices and the impact of the relationship among the peer teams.

5.2.3.1 School A

Teacher emotions in the space of the ILP

Teachers with positive emotions during professional development are more likely to participate fully in the programme, anticipating new and innovative ways to put what they have learned into practice. Teachers who are exhibit negative emotions, on the other hand, may be unable to connect their learning to their practice (Hunt, 2016; Lasky, 2005). Throughout the interviews of the four teachers in school A, they described both positive and negative emotions about their engagement with the ILP. Excitement was the most frequently described positive emotion; nervous and a lack of confidence starting the ILP were the negative emotions most reported among the four teachers.

The data for this school revealed the teachers' negative emotions were associated with starting the programme. The negative emotions eased as they progressed through the sessions of the ILP. The data indicated the four teachers described a number of negative

emotions at starting the programme, in particular a lack of confidence emerged. Kate summarises her emotions on the first day of the programme.

I couldn't believe how large scale it was and how many teachers had gathered from various schools. There was an energy in the room but I felt a mixture of emotions. I was worried I was out of my depth. I have only been teaching for a few years and I was aware of the pedagogical opportunities of the programme but I didn't want to look foolish in front of other teachers who had a lot more experience than I did".

The emotions associated with a lack of confidence about starting the programme was evident in another teacher too. Mia recalls a specific feeling of apprehension in the days prior to starting the programme. She recollects *"I was apprehensive about having to take part in practical learning experience in front of other teachers".*

The evidence of the initial negative emotions starting the ILP eased for the teachers after they completed session one. This is a positive outcome for the teachers in school A as negative emotional responses can result in teachers' resistance and refusal to implement new instructional practices from a professional development programme (Lee &Yin, 2010; Van Veen & Sleegers, 2006).

Emotions and the transfer of learning from the ILP to the classroom

In this section I outline the data on implementation of the new instructional practices in the classroom. In school A, the four teachers experienced both positive and negative emotions of implementation.

The initial emotions of the teachers returning to the classroom was apprehension, anxiety and a lack of confidence at implementing the innovations. Kate summarised this for the four teachers and recalls the initial start of implementing instructional practices in her class.

Starting anything new there is always the fear of failure or embarrassment. I was lucky with the group of students I had tried the strategies with. I was able to be open and honest with them about trying something new, so it became a journey for all of us".

Kate was focused on the impact of the practices on her students and started to overcome her apprehension and fear by discussing the new practices with her students. She explained why she was using the new practices in her class.

Mia, Grace and Ava also link this apprehension with a fear of failing in front of their students. Ava's concern of failure is based on the relevance of the innovation on her students and their outcomes. By describing the relevance of the innovation to the students she is concerned about the impact upon her sphere of influence.

Mia had a similar experience. Her apprehension was linked to the use of the practices in the correct setting with the right students in class. Her experience also linked to her sphere of influence, connecting to Stage 4 *Consequence* of the SoC. She described this below.

I was anxious about how to include the strategies in a useful way in class, not just as a token. But I knew I needed to practice the use of them. I needed to think out the

usefulness of each strategy with a particular class, some activities were not suitable for

some classes who find it difficult to follow instructions. I was apprehensive about the

amount of planning required. A number of times I had to step back and really think

about what I was doing. With thinking about the strategies I really had to change my

assumptions about what I was doing.

As expected, negative emotions are experienced by participants initially when starting

to implement an innovation (Schmidt et al., 2015). In this school, those emotions

revolved around the impact upon their students. The apprehension and lack of

confidence described by the four teachers indicate *impact* concerns, predominantly

Stage 4 *Consequence*. They are concerned about the impact of the new practices on

their students and the school. They all report on the relevance of the practices for their

student and if they will support an improvement in student achievement.

Relationships with colleagues

Relationships emerged as a key influence in teachers' emotional responses in school A,

especially to support teachers to overcome any negative aspect of change. They outlined

positive relationships with colleagues emphasising the trusting and supportive nature

of the relationship. The four teachers described been "*able to chat to one another",*

"*share resources*", "*view a colleague teach a strategy*" and "*talk about a bad class*".

Grace described her relationship with her three colleagues as supportive in moving past

her initial negative emotions of using the practices for the first time. She said *"when*

we came back after session one, I was apprehensive about using the new strategies.

Chatting to the girls was great. I felt comfortable talking to them about my negatives

experiences and how to overcome them". Those relationships were a key attribute in

supporting teachers to implement instructional practices. Developing constructive and trusting relationships with colleagues appears to be a key factor in assisting them emotionally in effecting improvement in their practice.

One key feature in the data of school A, which was highlighted as crucial to implementing the instructional practices, was their interaction with colleagues who had previously completed the programme. For example, Kate talked about going to observe a colleague teach. *"I was having trouble with Framing Questions, and I asked a colleague who had just graduated from the programme if I could watch her teach Framing Questions"*. She described how her colleague was *"comfortable"* and *"open"* to her observing her teach. *"She has become a critical friend over the last year. I feel I can talk to her about my experiences in the classroom and when I have an issue, I can discuss it with her. I feel it has really helped me"*.

The relationship between the four teachers and previous colleagues to complete the ILP, reflect *task* concerns, predominately Stage 5- *Collaboration*. The four teachers in school A are actively coordinating and cooperating with each other to move past any negative emotions to support with implementation. They described this through sharing of resources and viewing each other teach. Positive relationships are a key feature for the four teachers to move past negative emotions and support each other with implementation. This indicates the use of peer teams, a group of teachers attending the programme together as a crucial element to implementation of the practices.

5.2.3.2 School B

Teacher emotions in the space of the ILP

The predominant emotions revealed by the teachers in school B at the start of the programme was positive. There was consensus among the three teachers they were privileged to be selected to attend the programme. They reported the school places an emphasis on teachers in their school to use the practices from the ILP. This brought a level of apprehension and anxiety for the three teachers as they felt pressure to ensure they maximised their learning from the programme.

One of the significant findings of the study was the impact of previous teachers in a school who had completed the programme to support teachers currently engaging in the programme. This is evident in school A above and school B. School B had two cohorts of teachers previously complete the ILP.

Molly spoke about her experience talking to colleagues about the programme prior to attending session one. This impacted upon Molly's perception of the programme and some of the emotions she experienced at the start of the programme. Molly shared that

[o]n the first day you are asked to move around and sit at different tables with different participants. I knew this would happen and I was nervous and shy about it but as we moved around I became more relaxed, and I think now we all have grown with it.

The other two teachers also had similar feelings of anxiety about moving to different tables to work with teachers in other schools. It took them the first three days to

understand they were put in the position of students and experienced similar emotions to students in the classroom. The experience of moving themselves helped them to understand the need to develop instructional safety in the classroom. Sophie summarises her thoughts below.

By the third day of the first session, I realised the importance of planning lessons with other participants. I was nervous on Monday but by Wednesday I was sitting by someone I haven't spoken to yet, constructing a lesson and the resources needed for the lesson, having a conversation on teaching and learning. I got comfortable engaging with others, and I see why it is important for me to experience that interaction. I know how my students feel and I need to build safety into my classroom. It set the tone to go back into school and to start using the strategies in class.

The negative emotions the teachers experienced at the start is directly linked to conversations with teachers in their school about the experiences those teachers had. This led to anxiety and apprehension. Their emotions reflect a complex mix of *self* and *impact* concerns predominantly Stage 2- *Personal* and Stage 4- *Consequence*. The tension they experience prior to starting the programme illustrates they are uncertain about the demands of the innovation and will they meet the demands. They are analysing their relationship with the programme and the school. They feel pressure to ensure their maximised their learning and practice from the programme as they feel privileged to be selected to attend the programme.

The three teachers were concerned about the experience of the programme and the similar emotions a student might feel as they are introduced to the new practices. This

aligns with Stage 4- *Consequence*. They have a concern about the impact of the innovation on students and on their sphere of influence. The data report consequences on the relevance of the practices for students, their competencies to use the practices and the changes they need to make to their practice to improve student achievement.

Emotions and the transfer of learning from the ILP to the classroom

All teachers experienced a range of emotions. The initial emotions of the teachers upon returning to the classroom was apprehension, anxiety and a lack of confidence at implementing the innovations. One teacher described a lack of confidence in their sphere of influence when starting with implementation. Mairead described that

I wouldn't say I was confident going back to school. I'd say better equipped. Before starting the programme I thought I was a good teacher but now looking at it now, I would be a novice user of the IL strategies. It is a process of baby steps, taking one methodology at the time. Now I am at the stage where I am trying to become more comfortable with using the strategies and the students feel like it's working for them as well. A year into this I am starting to feel more confident. I feel I am building my repertoire. It helps that the Junior Cycle reform is also happening because I am incorporating more active methodologies to link with that change. That pairs really well with me using IL.

Mairead's lack of confidence illustrates a complex nature of *self* and *impact* concerns especially Stage 2 - Personal and Stage 4- Consequence. She outlines an uncertainty about the demands of the innovations and her ability to meet the demands of implementing new practices. She describes the tension between her perception of

herself as an ideal teacher and what she perceives her practice is after the first session of the ILP. This tension seems to reflect an inner conflict and frustration at trying to become more comfortable at using the strategies in class. This also reflects that educational change is not linear and she is experiencing frustration at implementing the practices.

The other two teachers had similar experiences initially and all three teachers were able to overcome this anxiety by formal and informal structures in the school. The data indicates the value of professional collaboration supported the three teachers with implementation of the practices. They were able to learn and gain experience through their engagement with colleagues through a Breakfast Club, peer observation and staff development during Croke Park time. The peer observation model in the school supported the teachers to view experienced teachers using the ILP practices. One teacher (Mia) commented *I was unsure of TGT after session two. I viewed a teacher use the strategies in a language class and it gave me confidence to use it. I was able to go and hat to her about it and that gave me confidence.* The collaboration with an experienced user of the ILP practices supported implementation and reduced anxiety for the three teachers.

The data reveals there was a requirement for them to share their learning and experiences of the programme with colleagues in formal settings. This brought a level of apprehension to the three teachers. They each presented their learning at a formal initiative in the school either at a Breakfast Club or during a Croke Park meeting. This indicates the teachers have impact concerns Stage 5 Collaboration. The three teachers are coordinating and cooperating with others regarding the use of the practices.

Relationships with colleagues

Similar to school A, relationships emerged as a key influence in teachers' emotional responses, especially to support participants to overcome any negative aspect of change. They also outlined positive relationships with colleagues such as trustworthiness helps them with implementation of the practices.

Relationships and collaboration played an important role in supporting teachers to respond to negative emotions towards change. The three teachers spoke about positive interpersonal relationships with their colleagues and other teachers on the programme supported them with implementing new instructional practices. The evidence of affirming and a well-structured learning environment to share good practices among teachers helped to develop trust among the three teachers. This also supported the three teachers to talk about their experiences. Those relationships are crucial for any change process and especially the influence relationships have on the participants emotionally. Developing supportive relationships appears to be an important factor in supporting teachers in a change in practice.

5.2.3.3 School C

Teacher emotions in the space of the ILP

The initial experience of the programme exhibited a range of emotions for the teachers in this school. The positive emotions ranged from excitement and pleasure while the negative emotions experienced by the participants ranged from nervousness to a lack of confidence to apprehension.

This cohort of teachers were the first teachers in this post-primary school to engage in the ILP. The positive emotions the teachers reported (excitement and pleasure) at the start of the programme were replaced by negative emotions of nervousness, a lack of confidence and apprehension. Teachers were primarily concerned with how to transfer their learning from the programme back to the classroom as they have no guidance from colleagues in their school to support them with implementation.

Emotions and the transfer of learning from the ILP to the classroom

In this school, emotions are to some degree dispositional and highly sensitive to context. The emotions described above align with the emotions the teachers experienced back in school. The lack of confidence and a high level of anxiety about implementing new practices continued after session one. Emma describes the anxiety of introducing new practice as:

When I went back to school, and I started making changes initially I was a little bit anxious because I was doing something different. As I said earlier, the learning was messy, my classroom was louder, and some colleagues questioned this. I was worried about what my colleagues would think and what my students would feel in the classroom. I always had a good relationship with my students but then I worried about how they would react. Now I have started to get more comfortable with the methodologies and I am starting to enjoy what I am doing but this has taken a lot of time and practice.

The other teachers report similar experiences. This reveals a high *impact* concern with a high concern related to colleagues' and students' perception of her performance and

competencies. As these teachers are the first to complete the programme in their school it brought a level of anxiety to try out new practices. They are worried about how their colleagues perceived the noise level in her classroom and felt that their colleagues perceived the noise of active learning as poor classroom management with the students not engaging in learning.

The participants in this study experienced negative emotions upon their return to school due to a lack of confidence with implementing practices. This did not prevent them from continuing to implement instructional practices as outlined from the Stages of Concern. As expected, negative emotions are experienced by participants initially when starting to implement an innovation (Schmidt et al., 2015).

Relationships with colleagues

The teachers outlined positive relationships with colleagues such as emphasising the trusting and supportive nature of the relationship, influenced a positive response to change. Emma outlined those relationships.

We travelled down together, and it has given us a great opportunity to bond. We have conversations about IL, we talk about our experiences of using the strategies in the class. Because it is not a formal meeting we are more open to talk about what has gone wrong with some of our classes and this has been helpful.

There was one piece of evidence to suggest positive relationships supported teachers to implement the instructional practices. The three participants discussed how they started planning a Learning to Learn module for their first-year students upon return from their

first session. Hannah described how they believed this module would support each other with implementing new instructional practices and develop a language of learning with their students too. She further commented that *"working on the Learning to Learn module with my colleagues helped me feel supported. I felt I could bounce ideas off them and they would listen to my concerns and challenges about using the strategies in my classroom"*. Aoife described a similar experience with working on the Learning to Learn module. She commented that *"it was great to be able to talk to my colleagues about what I was doing. I felt comfortable talking to them and I trust them to listen about my experiences"*. The third teacher agreed with the comments of her two colleagues. She spoke about *"not working in isolation"* and *"respecting their opinion"* (Emma).

The data aligns with high *impact* concerns Stage 5 *Collaboration*. They are focused on findings ways to coordinate and cooperate with each other to support implementation. Collaboration and relationships play a key role in supporting participants to implement instructional practices. Those relationships are crucial for any change process and especially the influence relationships have on the participants emotionally. Developing supportive relationships appears to be an important factor in supporting teachers in a change in practice.

5.2.3.4 School D

Teacher emotions in the space of the ILP

The teachers in school D indicated they were excited to start the programme. They reported negative emotions once they engaged with the programme. They recalled feeling anxious, worried and frustration. The data reveals the teachers recognised the instructional practices demonstrated in the sessions of the programme were important, but the teachers struggled to link with the practices. Lucy stated

I know what we are learning here is important, but I am frustrated a little. There are so many new strategies I am unfamiliar with. The concept maps, teams games tournament, bumps and concept attainment are great, but I am struggling to find a way to bring them back into the classroom. I feel a little overwhelmed by all of it.

Ella had similar views to Lucy. She shared

It great coming down here for each session but I have found it difficult to bring everything I have experienced back to the classroom. I am aware of the placemats and cooperative learning from junior cycle reform, but the rest of the strategies are so complex. The concept attainment in particular is hard to grasp.

The teachers attributed their emotional experiences of the ILP to prior knowledge and their classroom responsibilities. They were both aware of some of the strategies from previous professional development but exhibited concerns towards the new strategies which in turn led to negative emotions. The negative emotions reported in this case reflect a high *self* concerns predominantly Stage 0 *Unconcerned* and low Stage 2

202

Personal concerns. Their interest in the programme is impersonal and illustrate an adequacy to meet the demands about implementing new practices. They are aware of the importance of the instructional practices but are only willing to work with the ones they are familiar with.

Emotions and the transfer of learning from the ILP to the classroom

The data indicates the two teachers struggled with implementation. Both teachers describe finding it difficult to use the practices in their classroom. Ella reported

Strategies such as the placemats and venn diagrams were easier to use in my classroom. I am familiar with some of those through JCT training. The harder one such as concept attainment were not as easy to implement. I was afraid to try concept attainment as I was unsure of it and felt I didn't know enough about it.

Lucy described a similar experience to Ella. She discussed

I find it hard to use some of the strategies. I am unfamiliar with them and afraid to use them as I might look foolish in front of my students. I need more time to become more aware of them.

The emotions exhibited with the two teachers display *self* concerns, Stage 0 *Unconcerned* and Stage 2 *Personal*. The teachers have little or no concern with implementation due to low personal concerns. They are both worried about the demand the new practices has on themselves and how those demands has on their role as a teacher.

Relationships with colleagues

This case site experienced negative relationships which impacted upon implementation of the practices. Ella discussed *"I get annoyed with my colleague when she doesn't share resources and I feel frustrated by this".* She further goes on to describe how this negative response has had an impact on implementing instructional practices.

"You spend so much time with your colleague over the three days of the programme and when you return to school you don't engage as much with them, resources are not shared, and I don't use the strategies as much in class".

A lack of communication and collaboration was evident with the other teacher. Lucy commented *"we don't talk about IL when we go back to school. My colleague has other priorities, other interests and we just don't engage with each other"*. This has affected Lucy in implementing instructional practices in school.

The data reveals the poor relationship associated with the professional development has a negative effect on implementation. They speak of *doesn't share resources, you don't engage as much with them* and *my colleague has other priorities* display a low Stage 2 *Personal*. The teachers in this school are considering potential conflicts with existing structures in their relationship which impacts on their commitment to implement the instructional practices.

5.2.3.5 School E

Teacher emotions in the space of the ILP

The data illustrates the three teachers were delighted to be selected to attend the ILP. The positive emotions reported were replaced by negative emotions once the teachers started the programme. All three teachers' negative emotions were characterised as a lack of confidence in their ability to engage with the strategies in the programme. Their lack of confidence in their ability to implement the practices were not addressed by the programme or at school level and as the programme continued all three teachers described a disengagement with the programme.

Chloe stated

I really felt out of my depth during the sessions. I have only been teaching for three years and I feel what we are doing in some of the sessions are difficult to use. The concept attainment is really hard and I don't think I will ever be able to grasp it. I would love to get a handle on the strategies but I am worried this might not happen.

Lily described a similar experience. Her feeling of the programme related to her own practice. She said

It is all so new to me. During the first session I kept thinking of what I need to do with the strategies once I get back to school and I feel overwhelmed. I now feel I will never get the hang of it as some of the strategies as so hard to use.

The emotions reported align with high Stage 2- *Personal* concerns. They are uneasy about using the new practices and their involvement in the ILP. They are exhibiting a

negative interaction with the ILP and an intervention is required for the teachers to successfully move past those emotions to support them with implementation.

Emotions and the transfer of learning from the ILP to the classroom

One teacher, Jack, described how he experienced frustration with the programme and implementing practices. *I think this has come ten years too late for me. The practical ideas are great, but I have very little intention to change what I am doing. I will dip in and use some but at this stage of my career I'm not interested in all that extra work".* Jack has a high self-concern, Stage 0 - *Unconcerned*. He has little concern about implementing the innovation. This is due to his perception of his stage in his career. This also ties into his professional identity of *task perception*. Jack has decided he is unwilling to engage fully in the change process because of his career stage.

Lily and Chloe report similar experiences. Both teachers report after the first session they started to use the practices in their classroom but were inhibited by a lack of collaboration and support among the three teachers after session two. They both expressed a concern about the practices linking to their subjects. Lily stated

I had started using the strategies but now I am not really using them. Some of them don't align with my subject.

The emotions described by the teachers continue to align with high Stage 2- *Personal* concerns. The three teachers have a negative reaction to implementing the instructional practices because of their school context and career stage. They are concerned about how the new practice impacts on them and their subject area.

Relationships with colleagues

A lack of communication and collaboration was evident with all three teachers. Lily commented *"we don't talk about IL when we go back to school. They are not interested in working together to support each other with this"*. This has affected Lily in implementing instructional practices in school. Jack has a similar experience, *my colleagues are great, but I have no interest in working with them on this. My focus is getting my students through their exams.*

The data from the interviews align with the data collect in the SoC. The three teachers have a negative reaction to implementing the instructional practices and are non-users of the practices. An intervention is required at school level to support the teachers with the use of strategies.

5.2.3.6 Summary of emotions

The aim of this section of the findings was to gain an understanding of the emotional experiences and concerns of teachers involved in a professional development programme. The teachers involved in this study reported a number of new insights along with perceptions that align with other studies. They include:

- Combining the results from the SoC and the phase three interviews helps deepen the understanding of the emotions the participants experienced while implementing instructional practices. Findings from this section not only indicated that teachers' emotions are linked to their concerns but that they also effect their response to change. The participants experienced both positive and negative emotions along their journey and, as outlined above, when teachers experience a barrier to implementation, they tend to experience negative emotions (Lee & Yin, 2010; Van Veen & Sleegers, 2006). The conceptual

framework (CBAM) was useful in providing an understanding of the concerns of teacher change. The SoCQ was administered on three occasions over a year and a half. Figure 5.1 illustrates the overall concerns in the five schools.

Figure 5.1 Concerns of the teachers in the five schools

School A High Level of Collaboration	School B High Level of Collaboration	School C Mid Level of Collaboration	School D High Self-Concerns	School E Low Self-Concerns

- Findings from this section outline and contribute to a growing body of research on emotions and change. In this section, relationships between colleagues emerged as a key factor to support participants with implementation. In school A, B and C the positive relationships between colleagues supported teachers with implementation and to overcome any negative emotions. In school D and E the negative or poor relationships between colleagues hinders teachers with change. The role of collegial relationships is often overlooked in the literature and will be discussed in further detail in the next chapter.

- The initial experience of the programme exhibited a range of emotions for each teacher. The positive emotions ranged from excitement and pleasure while the negative emotions experienced by the participants ranged from nervousness, a lack of confidence to apprehension. The interactions between various experiences for the participants triggered both positive and negative emotions

at an early stage. As outlined earlier, teachers who engage in professional development programmes designed to shift their practices will initially experience negative emotions followed by positive emotions when teachers become comfortable with the change (Guskey, 2002, Schmidt et al., 2005). The belief that positive emotional responses from teachers at the beginning of a change process will support teachers to accept and implement the innovation, whereas negative emotional responses will result in teachers' resistances and refusal to implement the innovation (Lee &Yin, 2010; Van Veen & Sleegers, 2006).

5.2.4 Concerns of teachers regarding Stage 5 collaboration

Phase 5 interviews were used to gain a better understanding of the impact of the complex nature of teacher professional relationships on their experience of the change process. Teachers' experiences of change processes are complex in nature and an understanding of these experiences are important for developing professional development programmes.

Six teachers with a SoC peak score Stage 5- Collaboration were interviewed in Phase 5. The six teachers interviewed are listed below in table 5.8.

Table 5.8 Teachers and their schools interviewed in Phase 5

School	Teachers
School A	Grace
School B	Mairead
	Sophie
	Molly
School C	Hannah
	Aoife

This research is a multi-site case study and by interviewing a sample of teachers from a selection of three schools, outside of their case adds a limitation to the data in this section. The data collected in this phase provides insights into the three schools, further information on the teachers implementing the new instructional practices and why these six teachers want to coordinate with other teachers.

5.2.4.1 Concerns of teachers regarding Stage 5 collaboration

The purpose of the phase 5 interviews was to gain further insights into the teachers' peak score and second highest concern score to determine the teachers concerns of implementing instructional practices from the ILP. Stage 5- Collaboration focuses on individuals coordinating and cooperating with others on the innovation. As outlined

earlier, analysing the peak score and the second highest score provides a more detailed interpretation of the teachers' concerns. The six teachers interviewed all scored a second highest score Stage 1. This reveals the teachers are focused on cooperating with each other and they are interested in learning more details about the innovation. The interviews probed to discover a qualitative understanding of those concerns. Three themes emerged from these interviews. They are:

1. Learning about the innovation
2. Networking
3. Sharing of resources.

5.2.4.2 Learning about the innovation

All six teachers revealed they would like to learn more about the innovation from their colleagues and other teachers attending the ILP. They outlined the ways in which they experienced sharing of good practices with others (e.g., discussions with subject teachers, modelling, co-teaching lessons during the ILP and informal chats with teachers). Sophie (school B) summarises the thoughts of the six participants with:

I really enjoyed the last two times we were divided up into subject departments. This was really interesting for me because I was coming from a practical point of view and trying to integrate strategies into practical lessons. It was great to bounce ideas with other art teachers. The informal chats that you have at break times, lunch and dinner are great, you get so much from these conversations as well as the content being delivered. I really found talking to more experienced teachers beneficial about how they incorporate strategies into their art classes. I got a lot of ideas and some teachers

also shared resources too. I was able to link in with these teachers by email when I returned to my school.

To further build on the participants' experiences of learning about the innovation several teachers reported how they specifically would like to learn more about the innovation. Mairead (school B) explained that:

(s)ince the start of remote learning due to Covid, IL strategies have had to translate to the online dimension which has been difficult. I have spoken with teachers in other schools to see how they manage this. Between us we have created a bank of resources, we have moved our placemats into a digital form. I have used these resources with my two colleagues to build a website to share with our staff. We are able to put up a comment section on the website for teachers to reflect upon them.

Aoife (school C) outlined the social interaction with other teachers supported her to gain more knowledge about the innovation. She described the layout of the conference room and the movement of teachers around the room facilitated teachers being open to share information about their experiences. She described:

The layout of the room helped a lot. My school was linked in with another school together a couple of years ago on a project. They have had teachers previously attended other cohorts of IL. When we were moving around the room I linked back in with some of the teachers. After our first session we visited them and looked at some of the work they had been doing and developed a shared learning initiative. I learned a lot about

how they were incorporating IL into their classrooms. I would like to be in the position to visit other schools to see what they are doing with IL.

5.4.2.3 Sharing of resources

Hannah (school C) found resource sharing with other teachers as supportive to learning more about the instructional practices. She described how knowing about other teachers' implementation practices would support her practices.

Barrie talks about how teachers use strategies such as mind maps, Bloom's Taxonomy in their classrooms and that is great to hear but when you talk to other teachers here you pick up a lot more. I spoke to a teacher yesterday about how she has used mind mapping in her subject area. She developed information sheets for students to develop skills to revise using mind maps and she was able to share them with me. From this conservation I will go back and try to use this resource with my students. These powerful conversations among other teachers have a huge impact on what I do because I wouldn't have tried this without this process.

5.4.2.4 Networking

All teachers revealed the opportunities provided by the ILP to network and collaborate with teachers from different schools was crucial. Networking is outlined by Fullan et al. (1989) as one of the key benefits of professional learning for teachers to interact with colleagues from other schools to share resources. Molly (school C) summarised the thoughts of other participants.

I had some great conversations about IL with the other two teachers in my school, but I was delighted to engage with subject teachers from other schools. It allowed me to talk to teachers about subject specific methodologies and share ideas. It allowed me to have a positive open-minded approach to my learning.

Aoife agrees with the power of networking with colleagues from other schools. She stated

I am the only Home Economics teacher in my school. Here I find it interesting talking to other practical teachers. Today I was discussing with another Home Economics teacher how she incorporated Bloom's Taxonomy into CBAs for her second years. I don't have this support in my school as I don't have a subject department to work in.

Sophie and Aoife outlined the formal structures of the ILP to network and collaborate with teachers from other schools. They discussed having *conversations with other teachers about their experiences of implementation in other schools. It is great to learn about the pitfalls and successes in other schools* (Sophie). Aoife described the importance of learning from other teachers, their experience of implementations and how they diffused the innovation with their colleagues. She described *it was great to be able to talk to other teachers about how she shared IL with colleagues. I really liked hearing about how the Breakfast Club was run and it is something I would like to start in my school.* The sharing of experiences supports others to discuss the innovations with their own colleagues.

5.4.2.5 Summary

The teachers acknowledged the social value of sharing resources, ideas and practices with teachers supports the diffusion of instructional practices. As discussed in the Literature Review diffusion occurs when an innovation is spread from one individual to another (Rogers, 2003). Diffusion of practices was facilitated in each school by Teachmeets, Cosán workshops, the development of a Learning to Learn Module, Breakfast Clubs and informal conversations with staff. Teacher agency also played a factor in the diffusion. Some teachers used their autonomy to observe colleagues teach the instructional practices.

The additional insights provided from the interviews of six participants with a peak score Stage 5 reported they were all interested in learning more about the instructional practices from the ILP. They discussed how the ILP facilitated them to learn from other teachers about the innovation through informal discussion, modelling and co-teaching of lessons. These findings support how collaboration and relationships are crucial for teachers to learn more about the innovation and this aligns with Saunders (2012) and Opher et al.'s (2011) previous work.

5.3 Design of the programme involving the presentation of theory and demonstration

The purpose of this section is to explore the experiences of the teachers and their perceptions on the design of the programme. The research aim will be explored through

two lenses: (1) Design of the programme involving presentation of theory and demonstration and (2) Peer Coaching.

This section of the findings used data from Phase three- semi structured interviews of fifteen teachers. As outlined in chapter three, the ILP is designed and facilitated in accordance with research led professional learning. This theme describes the opinions the teachers experience about the design of the programme involving the presentation of theory and demonstration of the ILP. The findings of a number of sub-themes will be discussed and include: (1) Structure and Design of the Programme; (2) Peer Coaching.

5.3.1 Structure and design of the programme

The findings identified multiple characteristics of the structure and design of the programme to support participants to implement change in instructional practices. The characteristics are: (1) the extended period; (2) Cyclical nature of the programme; (3) Adequate time between the sessions. A number of those characteristics provided blockages to some teachers in their implementation process. The factors relating to the structure and design of the programme to support implementation, along with barriers to implementation will be discussed below.

5.3.1.1 Extended period of time

All fifteen teachers in the five schools agreed the extended period (four sessions each lasting 2 and a half days, over a two-year period of the ILP supported them with the engagement of instructional practices in their classroom. They explained the extended period of time allowed them to build capacity and knowledge.

School A, B and C all commented on the design of the programme as effective because it is a move away from the traditional professional learning experience of a one-day event with no follow up or guidance following completion of the initiative. Hannah (school C) commented *"you become so immersed because you have the time over the three days you really learn a lot"*. The data indicated the teachers in the three schools expressed they would not have developed the knowledge and capacity of the programme as a single event. Aoife (school C) commented *"staying overnight at the programme is great. You have the sense of collaboration and a shared experience, living your learning for three days. Not only from discussions with other teachers but the three of us are able to plan what we will do when we return to school. You don't get that opportunity with other CPD"*. This aligns with the literature, in which effective models of professional development require extended period of time to support teachers with implementation (Birman et al., 2000; Garet et al., 2001; Yoon et al., 2007).

Teachers in school D and E experiences of the extended period of time provided blockages. All five teachers felt the programme could be reduced to three sessions as they felt there was some overlap. Chloe (school E) commented: *"there was a lot of repetition in session two and three and could be condensed to three sessions instead of four"*. The data reveals this feature of the extended period of time hindered the teachers and resulted in negative emotions of frustration with the programme. Their experience of repetition caused the teachers to lose interest in aspects of the sessions.

5.3.1.2 Cyclical nature of the programme

The teachers in school A, B and C had positive engagement with the cyclical nature of the programme; the use of theory, demonstration, practice and reflection. All ten teachers in schools A, B and C described how it supported them to enact new instructional practices into their repertoires. The teachers in school D and E expressed issues with theory of Instructional Intelligence, demonstration and practice.

5.3.1.3 The use of theory

At each session, teachers engaged with theory on a range of instructional innovations. All fifteen of the teachers agreed learning the theory of Instructional Intelligence is crucial as it develops a deeper understanding of the instructional processes and instructional design of a lesson. Emma (school C) commented *"I feel I was a mechanical user with the methodologies I was using before IL. I didn't know the impact of Blooms, placemat or cooperative learning had on my students. The theory helped me to improve as a teacher, to understand why I was doing something".*

In support of this, a key element of the findings aligned with how the theory of the ILP linked with current national policy, Junior Cycle reform. The teachers in school A and C indicated the ILP provided them with the confidence to develop knowledge and capacity around teaching, learning and assessment. Junior Cycle reform professional development didn't provide them with the theory or the capacity of a change in instructional practice with a single day staff development day once a year.

Both teachers in school D revealed the main reason they attended the programme was to improve their teaching repertoire to align with this reform. Lucy commented *"we*

had one off JCT days, but I wasn't confident about changing how I teach after it. IL gave me the knowledge and skills to do that". Lucy acknowledged the ILP gave her the knowledge to change her practice to align with junior cycle reform, but she was inhibited at times by the language of instruction associated with the programme. Her colleague Ella agreed with this. This was also supported with data from school E. Those five teachers described how the theory of Instructional Intelligence was complex and initially all five teachers found the language of instruction difficult to understand. They spoke about it as unfamiliar initially in the Irish education system context. One teacher commented *"the first session was difficult as I didn't understand the meanings of the language being used. It was all so new to me"* (Jack).

5.3.1.4 Demonstration and practice

All teachers found demonstration and practice crucial for their understanding of the instructional practices. The steps involved in implementing the instructional practices were modelled and teachers practised them and received feedback and coaching on their progress. The teachers found experiencing the learning activities in a similar fashion as their students beneficial. They described five ways demonstration and practice supported them.

The ten teachers in school A, B and C commented on the adequate time between each of the sessions so they could enact the instructional practices in their classroom. The time between each session allowed the teachers to practice using the instructional practices. Upon return to the next session, they valued the social capital of networking with other teachers to share resources and discuss their experiences of using the instructional practices. Emily commented *"I get to talk to other teachers about what*

219

they are doing. It helps me reflect upon how I am getting on". The time between each session also supported teachers to reflect upon their enactment of practices. Ava stated *"one of the great aspects of IL is the learning is ongoing. I feel my learning is deep from the programme because I have time between sessions to trial the placemats, TGT before I return to the next session and I get to discuss how I got on with it"* (Lucy).

School A, B and C ten teachers discussed the style of facilitation of the programme. They described the style of facilitation as critical to supporting their learning. The instructional practices were modelled as they would be experienced in a classroom. They were guided in developing an instructional repertoire. Hannah commented *"from the first activity we were the students. We experienced what the students in a classroom. It was amazing to see 130 teachers experience their learning like students"*.

Two teachers from school C and two from school D spoke about planning lessons with groups of teachers and teaching the lesson to other groups. Aoife said " *we plan and teach lessons to each other and other cohorts. It developed my confidence and competence"*. Lucy agreed with this *"we have to plan a lesson here and teach it. The most powerful aspect of this is it is not subject related. It has to be a general topic. This showed me that the methodologies would be used for any subject"*. They also discussed how at the start of cohort two they had to plan a lesson and teach it to another cohort. Ava commented "*it made us meet up to plan the lesson. It really helped me to teach other teachers and to see how they use placemats and TGT"*.

Teachers in school B and C discussed using the reflective log as a tool for reflection but felt they needed a structural process to reflect upon their learning. Emma noted "*the*

journal was great to get at the first session, however I found myself using it to take notes more than using it to reflect". Emma supported this *"reflecting is hard and sometimes I don't understand how I should be doing it"*.

5.3.1.5 Summary of the structure and design of the programme

To identify the components of the professional development programme that supported or hindered teachers' implementation of instructional practices, data from semi-structured interviews was analysed for evidence of experiences of taking part in the ILP. Themes included, the extended period of time, cyclical nature of the programme and adequate time between the sessions.

The findings of this theme reveal features of the programme to support and hinder teachers with the uptake of the programme. The factors to support implementation align with the characteristics of effective professional development (Darling-Hammond & McLaughlin, 2011, Guskey, 2009). Acknowledging the design features alone does not successfully support teachers with implementation. Those design features such as the extended period of time between each session, cyclical nature of the programme and demonstration and practice allow teachers time and space to practice their learning between sessions and put school structures in place between each session to support their learning.

Figure 5.2 summary of theme by each school

School A

Extended period of time

Positive engagement with the cyclical nature of the programme

The theory of the programme aligned with junior cycle reform supporting teachers with the reform agenda

Adequate time between sessions supported implementation

Modelling supported implementation

School B

Extended period of time

Positive engagement with the cyclical nature of the programme

Adequate time between sessions supported implementation

Modelling supported implementation

More support required with reflection

School C

Extended period of time

Positive engagement with the cyclical nature of the programme

The theory of the programme aligned with junior cycle reform supporting teachers with the reform agenda.

Adequate time between sessions supported implementation.

Modelling supported implementation.

Lesson planning supported teachers.

School D

Extended period of time frustrated teachers

Complex nature of the theory hindered teachers initially

Lesson planning supported teachers

School E

Extended period of time frustrated teachers

Complex nature of the theory hindered teachers initially

5.3.2 Peer coaching

Joyce and Showers (1995) studied the conditions under which teachers effectively transfer their learning from a professional development programme in their classroom. Their model, the Skill Training Model, developed an understanding of the effects of peer coaching. The data from the interviews report peer coaching supports and hinders implementation in the five schools. The findings for each school will be discussed below.

All fifteen teachers in the five schools valued the structural opportunities for collegial activity during the programme such as planning lessons, demonstrating lessons and reflecting upon their learning. This offered the teachers the opportunity to explore their beliefs and values in relation to implementing the new practices, to share resources with each other and to reflect upon their experiences. This aligns with Fullan's (2010) view on peer collaboration. He views it as a major catalyst for teacher change and the support of peer collaboration has the potential to generate positive pressure and momentum which supports implementation.

All fifteen teachers confirmed the peer coaching model (teams of teachers attending workshops together) helped to develop relationships among the peer team of teachers attending the programme upon returning to school. The teachers in schools A, B and C reported peer coaching provided them the opportunity to return to their schools and support one another through peer coaching resulting in effective transfer of teacher learning into changed practice.

They described characteristics of not working in isolation, building collaborative relationships together and having a school leader as part of the team to support implementation upon return to school. One teacher commented *"I like not doing this on my own and don't feel as much pressure to improve what I am doing in the classroom and present it at a staff meeting. Together the three of us figure it out"* (Mairead).

Seven teachers from school A and C spoke about developing collegiate relationships with their colleagues that would not occur in a single professional learning event. Aoife commented *"spending so much time together, you recognise each other, you come together, learn together, that's not possible with a one day CPD"*.

In addition, the supportive collegial relationships developed through peer coaching emerged as a significant factor to support the teachers in school A, B and C address their negative emotions in response to implementing new instructional practices. The teachers discussed their negative emotions were overcome by the support of their colleagues, the planning of lessons, the sharing of resources and the feedback.

Two elements of the ILP emerged as to support to the teachers in school A, B and C with peer coaching. First, ten of the teachers in the three schools noted by the programme occurring at regular intervals allowed them to develop social and collaborative supports together. They believed this influenced improving instructional practices. For example three teachers (school C) discussed travelling together for each of the sessions. They were able to plan and support each other with the professional conversations they had on the journey. Four teachers (school A) talked about staying overnight at the sessions helped them to network with each other and with teachers

from other schools. Grace noted *"you are constantly talking about teaching and learning. You pick up ideas all the time and you look forward to going back to school to try the ideas out"*.

In addition to the positive elements of peer coaching in supporting teachers to use the instructional practices from the ILP, school D and E experienced challenges in securing time and space to meet in peer coaching teams at their respective schools. The data reports teachers experienced conflict, lack of communication among team members and there was evidence of the team members working together.

In school D, Ella and Lucy reported the teachers didn't work together to implement the practices. They rarely spoke about the practices together and didn't meet to plan lessons. The only time they spoke about the ILP was traveling to and from the programme and during the sessions. They both agreed the concept of the peer team would be advantageous to develop positive relationship and implementation, but there was no evidence of the teachers working collaboratively together.

School E's data revealed a similar experience. The three teachers provided no evidence of working collaboratively. In school E conflict emerged as a factor to hinder the teachers working together. Chloe stated *we should be sharing our ideas and resources. This would develop better strategies and we could work through things together. It would be great to work together.* The desire to collaborate is evident but the other two teachers are unwilling. Jack's is unwilling to engage with the instructional practice due to his career stage. Lily reported she had little desire to work with her two colleagues to support each other with implementation. She stated *it is hard to find the time to meet*

and discuss it, I have so much to work I don't really try to meet with my two colleagues.
Bringing teachers together to work collegially on a professional development initiative is ideal but this doesn't necessary equate to success and this is evident in school D and E.

5.3.2.1 Summary of peer coaching

The peer coaching model is a crucial factor for the teachers (schools A, B and C) uptake of the programme. This aligns with the literature as longer periods of professional learning provide teachers an opportunity for in-depth discussion of content and instructional practices and obtain evaluation on their practices (Garet et al., 2001). The model also supports participants through collegial support as it reduces feelings of isolation, providing opportunities to exchange ideas and reflect upon their practice (Guskey, 2009).

Warren-Little (1993) claimed that peer coaching only suits specific types of contexts. This is evident in school D and E. Teachers reporting conflict and communication breakdowns within the peer teams as significant obstacles to hinder their progress.

5.4 Contextual factors to support change

The objective of this part of the study was to trace the experiences of teachers implementing instructional practices in their schools upon return from the ILP. The theme Contextual Factors to Support Change refers to factors at school level that supports or hinders teachers implementing instructional practices from the ILP. A wide range of issues arose during this phase of interviews. All sub themes discussed in this

section emerged across most schools and in the case of virtually most interviews. The overarching themes emerged as follows:

- Implementing an innovation

- Engagement and support of leadership on the programme

- Teacher Agency

- Time

- Teachers' perceptions of student learning

In this section each sub-theme will be discussed under each school. The subtheme *implementing the innovation* captures the teachers' experiences of implementing the instructional practices in school. This sub-theme relates to the teachers' personal attributes and attitudes to change. Teachers' individual characteristics play a role in teachers implementing innovations from the ILP. Teachers bring their own preconceived attributes and attitudes to implementing innovations.

Engagement of school leadership sub-theme encompasses a range of teachers' opinions on the role of the school leader in supporting teachers' implementation of practices in their classroom. The school leader discussed in this section of the findings refers to the principal or deputy principal attending or previously completing the ILP. All five participating schools had a school leader attending or have a previously trained school leader at the time of the research (table 5.9).

Table 5.9 School leaders training in ILP

School A	The Deputy Principal had previously trained in ILP.
School B	The Principal and Deputy Principal had previously trained in ILP.
School C	The Deputy Principal was attending the ILP with the teachers. She was a teaching deputy principal.
School D	The principal was attending the ILP with another teacher. She was a teaching principal.
School E	The Deputy Principal had previously trained in ILP.

The teacher agency sub-theme captures teachers' insight into their intentional actions to further their own professional development and experiences of implementing change. Three threads around teacher agency became evident from the data. First, the autonomy of teachers to enact and adapt the practices to suit their context. Second, the change of practices of teachers and third, how teachers developed and used collegial support to implement new instructional practices.

Two sub-themes emerged as factors that hindered change in the schools. They are time and teachers' perceptions of student learning. The sub-theme time encapsulated the teachers' thoughts on time as a factor that hinders implementation of new practices. The

sub-theme teachers' perceptions of student learning capture the thoughts the teachers had on student perceptions of their learning experiences. Many of the teachers expressed a concern about how the student felt about the new instructional practice, in some cases hindering the teacher's implementation.

5.4.1 School A

5.4.1.1 Implementing an innovation

All teachers in this school discussed their habit in relation to their attitude to change. They revealed their reluctance to use many of the instructional practices as they were uncomfortable or unfamiliar with them. Mia commented on this *"I found it a challenge initially as it was a move away from what I was accustomed to"*. Ava made a similar comment

I was comfortable making instructional changes in my classroom as IL was already rooted in my school. After the first session I picked three instructional changes to focus on over the next few months and try to integrate them into my teaching. It was difficult at the start as the students were familiar with the way other teachers in the school used them and they would question why I was using them in a different way. This sometimes made me question what I was doing (Kate).

In line with the comments of the above two teachers another teacher described how her habit hindered her from implementing the new instructional practices. Grace commented on this *"If I felt that something wasn't working particularly well with a group, I found myself going back to teaching the way I did before. I was not going to introduce this activity to another group"*.

This findings from this school report the teachers were reluctant to change their practice when they experienced a difficulty with them. Habit hindered their uptake of the practice. While there is a lack of empirical literature on teachers changing their practice from a professional development programme, these findings reveal teachers require an understanding of how practices are implemented in schools and the impact they have on student learning (Evans, 2010; Opher et al., 2011) to support them with change.

5.4.1.2 Engagement of school leadership

The teachers confirmed they had a school leader in their school trained in the ILP. They reported that having a school leader experienced in the knowledge of the programme was key in supporting them in planning, reflecting and implementing the practices. The participants' comments parallel the literature on how the role of the school leader impacts classroom practices and student achievement (King, 2011; Leithwood et al., 2009).

All four teachers appreciated the informal conversations the school leader previously trained in the programme had with each participant upon return to school about the programme. They felt these conversations placed a value on CPD and they recognised the importance of improving teaching and learning in the classroom. They spoke about the school leader acknowledging the new instructional practices the teachers experienced and how they were going to implement them in their classrooms.

All four teachers spoke of the school leader putting structures in place to support the teachers implementing the new practices. The Deputy Principal had started to develop

a culture of reflective professional learning, incorporating ILP in the school with Cosán. These workshops are designed for teachers to share highly effective practice, develop a reflective culture and support teachers in developing as leaders of learning. Interestingly, one participant's comment illustrates how the role of leadership can support and be supported by the Instructional Leadership Programme.

Two cohorts of teachers completed IL over the last few years. There is an expectation that you share your learning at our Cosán workshops. It is great to learn from each other and hear how other teachers are using the strategies. We are encouraged to reflect on our learning at these workshops (Ava).

To further support implementation of the practices, in this school ILP practices are emphasised as part of school development.

ILP strategies are used frequently with staff by management through our post of responsibility review and senior cycle review. ILP organisers such as digital placemats and ranking ladders are presented as part of Cosán. As part of the Learner Voice project we had training on five IL strategies which we collaborate with our Departments about using them. We are exposed to IL strategies by management. I am more comfortable using them with students (Ava).

The data presents evidence of the school leader putting in structures to support the teachers with the practices. The practices are modelled at staff meetings, post of responsibility reviews and collaborative structures are in place through Cosán

workshops. Having a school leader with the knowledge of the programme supported the teachers with implementation.

5.4.1.3 Teacher agency

All four teachers commented on having autonomy over how they enacted the instructional practices into their classroom to suit their context. They described some instructional practices as difficult to use in certain subjects and were able to adapt these to suit their subject. These teachers in their interviews described attributes of problem solving, commitment and an openness to change based upon their context.

All four teachers articulated a strong commitment to their students and especially to their roles as teachers. They reported how they enacted the instructional practices with groups of challenging students. They expressed a liking for student centred methodologies to support their students. The teachers acknowledged the instructional skills and concepts they developed from the programme supported them with classroom management, but they felt some groups of students required a lot of structure, support and guidance and were unable for complex strategies such as Jigsaw. They described requiring a lot of time to build the complex practices into their repertoire. The four teachers all discussed stacking the instructional concept of safety with instructional strategies to develop this repertoire. They described the importance of using wait time and framing questions to support the development of safety in their classroom. One participant Kate spoke about using wait time and framing questions with students prior to commencing the programme but not understanding the theory behind these two instructional skills and why she was using them. Kate stated, *"IL makes you think about what we do in the class, why we do it and when we should use certain methods"*.

Student learning was central to their work and this thread was common with all four teachers. They all showed a commitment to strong educational values centred on what Kate above stated as *think(ing) about what we do in class".* This shift in thinking about when and why to use the new practices provides an insight into the autonomy of the teacher to enact agency to suit the needs of their students.

All teachers revealed past experiences shaped their practices in implementing new instructional practices to improve classroom practice. The participants acknowledged prior to commencing the ILP they all used active methodologies in their teaching and tried to develop students into independent learners. They felt by engaging in a professional development programme aligned with best practice had shaped their knowledge around the theory of instruction and supported them in developing a language of learning for themselves and their students.

They also acknowledged it has been difficult to change their practices on implementing some of the new practices. Mia stated *"my classroom has been transformed and I have made significant changes to what I am doing. But it is not easy. I was teaching in a certain way for a long time, and I thought it worked for me. Sometimes I feel myself slipping back to my old ways with some classes because it worked for me for so long".*

The autonomy of teachers to enact and adapt the practices to suit their context was evident throughout the data in this school. Even though under the previous sub-theme habit hindered their implementation, the data reports the four teachers developed autonomy and problem-solving skills to overcome the challenges they experienced.

The collegial culture in the school supported teachers to implement new instructional practices. In the case of this school, the school leader created the conditions for collaboration in this school, but the teachers all volunteered or sought out the opportunity to share their new knowledge. After completing the second session many of the teachers started to share their experiences and knowledge with their colleagues in school. They did this through a number of formal structures in their schools; Cosán workshops, presentations at staff meetings and observing each other classes. Those structures supported teachers with implementation. It is clear that a collaborative working environment offered considerable benefit to the teachers and supported a sense of high agency among all four teachers.

5.4.1.4 Time

All teachers' indicated time was a challenge for them as individuals and collectively to implement the practices in their classroom. They found it difficult to develop resources around the new practices due to constraints of covering the school curriculum and other school activities such as post of responsibility duties, practical subject exam commitments and preparing students for Classroom Based Assessments (CBAs).

In particular they recognised the changing nature of the classroom due to the Junior Cycle. The requirements to respond meaningful to a change in practice for the Junior Cycle reform is acknowledged by Ava with

The new subject specification teaching aligns with the ILP teaching strategies but the time for planning, preparing and implementing strategies is difficult. Time is a real

challenge. I sometimes feel under pressure with the new Junior Cycle to ensure I am

teaching it correctly. What I have learned from ILP has helped me with this, but it is

hard to find the time to develop all the resources for my classes (Ava).

The teachers reflected upon the length of the class as a barrier to implementing some
of the practices. They felt extended learning time of an hour in the classroom was
required instead of the forty-minute lessons they had. One participant explained:

The time is limited with forty minutes of class to use these new strategies. I sometimes

feel anxious I don't have enough time to cover the class content and allow the students

to experience the strategies (Mia).

A colleague of Mia also expressed this concern:

I rush through the strategies sometimes as I am conscious that I don't have enough

time to get everything covered. I listen to other teachers here and they talk about their

hour-long lessons and how they have time to incorporate so many of the strategies into

their teaching. I would love that experience.

5.4.2 School B

5.4.2.1 Engagement of school leadership

All three teachers agreed having a school leader understand the knowledge of the ILP
supported them with using practices. They reported the school leaders supported them
with collaborative cultures established in the school. The following comment by Molly
provides a more specific example of how the principal actively supports teachers'
implementation.

We were holding a session for staff on co-operative learning and our deputy principal was able to sit with us while we planned this session. Having her there to plan the session really helped. She was able to advise us on what would be successful and the pitfalls. If she didn't understand what we were doing with staff she couldn't have provided that support. It made the session very successful.

Similar to school A, the teachers appreciated the informal conversations the school leader previously trained in the programme had with each participant upon return to school about the programme. In this case, the principal and deputy principal were trained in the ILP. They spoke about the school leader acknowledging the new instructional practices the teachers experienced and how they were going to implement them in their classrooms. One teacher commented that, "[T]he day after we got back to school the principal would ask me how I found the last session and how I was going to use my learning. His enthusiasm for me to get into the classroom to start using the strategies was very encouraging for me. It was great that he understood what was going on in the classroom" (Emma).

The three teachers in this school commented on the school leader putting structures in place to support the teachers implementing the new practices. The school leader had implemented two structures to develop a collaborative culture around the ILP. One teacher reported on the action of the deputy principal.

The deputy principal started an ILP Breakfast morning a few years ago. Alot of ILP strategies have been showcased at this teach meet so we are very very familiar with them when we started. After the last session it was my turn to present to staff. I did a

small session on placemats. Having the opportunity to hear teachers discuss how they are using strategies is powerful and really helped me with using them in the class (Emily).

Another teacher, (Molly) supported the above statement and explained how school policy supports teacher learning.

 We are lucky our school has an open day policy between the breakfast morning and the peer observation. I am able to visit a colleague's class to see how they teach an IL strategy. I was having an issue running a Teams Games Tournament (TGT) so I was able to see another teacher using it with her class. I was able to figure out what I needed to do. I think if I couldn't observe another teacher I would have gotten very frustrated with it and not tired using it again (Molly).

5.4.2.2 Teacher agency

All three teachers discussed the importance of having autonomy over how they enacted the instructional practices into their classroom to suit their context. This highlights the importance of the context teachers work in. It goes beyond the classroom and operates within the culture of the school. The four teachers were exposed to many of the instructional practices from the ILP through previous colleagues completing the programme and from that they acknowledged prior to commencing the ILP they all used some of the practices. The approachable, supportive relationships and strong connections they described with their colleagues who had completed the programme supported them with implementation. The opportunity to engage with colleagues in their own school influenced the agentic orientations (Priestley et al., 2015). They were

237

able to speak to colleagues about the enactment of the practices and amend them to suit their context.

Similar to school A, the teachers in this school reported an easier transition of changing their practices because of the collaborative cultures. The collaborative cultures were established by the senior leaders in this school, but the style of leadership described by the teachers is an important variable here. The teachers were encouraged but not forced by the leaders to share their new knowledge or experiences. Teachers in this school exercised their autonomy through presentations at Breakfast Clubs, Teach Meets and peer observations. After completing the second session many of the participants started to share their experiences and knowledge with their colleagues in school. Mairead commented

I presented my experiences of a TGT with colleagues at a Breakfast Club morning. I learned so much from that experience. Colleagues shared their experiences with me and I was able to use many of the ideas they shared to improve what I was doing.

Similar to Mairead's experience Sophie described how peer observation supported her with a change in practice. Her autonomy was evident by viewing another teacher teach and then inviting a teacher to see her teach. She stated

I viewed some of my colleagues teach a placemat. It was good to see in been used in a full lesson and how the students interacted with the strategy. I tried using it myself with second years and then invited a teacher to view me teach a placemat activity. I got more out of the conservation with the teacher after class. It was great to share ideas.

The teachers led a school wide working initiative. The four teachers set up a shared resource folder so they could share resources with colleagues in the school. This shows a strong commitment to the process of change and their willingness to work together as change agents (Fullan, 1999). To further support this process, they designed posters to display in classrooms to reinforce the various instructional strategies they learned. They actively observed each other teach the new practices, reflected upon the lessons and planned further process. They presented at their Breakfast mornings. Kate described *"we supported each other as much as possible as we felt the school had invested a lot in such- the cost of the programme and the confidence we would come back to put it into practice. We didn't want to fail".*

This illustrates collective agency among these three teachers in one school. Teacher change and understanding how teachers implement new practices occurs more readily in supportive environments such as an atmosphere of collaboration and collegiality (Warren-Little, 1993).

5.4.2.3 Time

The three teachers all agreed time was a challenge for them as individuals to implement the practices in their classroom. They described it was difficult to develop resources around the new practices due to constraints of covering the school curriculum and other school activities such as post of responsibility duties, practical subject exam commitments and preparing students for Classroom Based Assessments (CBAs). One feature to overcome this challenge was the use of the shared resource folder they established to share resources.

5.4.3 School C

5.4.3.1 Implementing an innovation

The three teachers in school C described fear of the unknown as a factor to hinder implementation. The teachers showed evidence from their interviews that they exhibited a fear of using the instructional practices in their initial return to school. One teacher was worried about how students perceived her as a teacher when she started using the practices initially. Aoife commented *"it is like taking a leap into the dark. I was worried that these new methods wouldn't work in class, and I would look foolish with my students"*. The fear of implementing new practices seems to be derived from the teachers' perceived ideas of how they teach or habit. Emma

5.4.3.2 Engagement of school leadership

Having a school leader (deputy principal) attend the programme in a peer team supported the teachers with the transfer of learning from the workshop to the classroom. One teacher's comment below summarises those of the other teachers in the school.

It is critical because we have these wonderful ideas as teachers, especially returning from CPD but it goes nowhere unless school management are supportive and understand the idea. That top down support and meeting somewhere in the middle has long term sustainability and success. Without it, it can be a real challenge. I think about this experience and having a senior management team member on board, she understands what we are trying to do in the classroom. I would be a serious advocate for that with all CPD if you really want to implement it back in the classroom (Emma).

Similar to school A and B the teachers appreciated the informal conversations the school leader had with each teacher upon return to school about the programme. One

teacher commented that, "[T]he day after we got back to school the principal would ask me how I found the last session and how I was going to use my learning. His enthusiasm for me to get into the classroom to start using the strategies was very encouraging for me. It was great that he understood what was going on in the classroom" (Emma).

The teachers started a Teaching and Learning Committee after their first ILP session. The intention was for the three of them to collaborate on using the practices from the programme. The deputy principal indicated that they met on a regular basis to discuss their progress. From this committee, the deputy principal initiated a peer observation process to view each other using the strategies. One of the teachers reported the peer observation was a positive experience and she was able to view her two colleagues using the IL strategies. Her colleague, Emma reported a similar positive experience towards the Teaching and Learning Committee and the peer observation. Emma stated that "[i]t was refreshing to see my two colleagues teaching. It is a move from the norm and I enjoyed watching them using placemats in her lesson".

One of the key issues re teacher learning comes from the research on peer coaching and transfer of learning from the workshop to the classroom (Joyce et al., 1995). The follow-up support in the classroom to the teams going back and working together, the support of the principal/deputy principal in creating opportunities for teachers to see each other, to have conversations etc. The school leaders by introducing the collaborative culture/Teach Meets developed an internal accountability by building relationships and professional capital amongst teachers around the ILP. As Fullan et al. (2015) observed professional learning tends to target individual teachers, but real change occurs when collaborative cultures are developed.

5.4.3.3 Teacher agency

The teachers in school C reported individual and collective autonomy to put in place structures to support each other with implementation. The described designing a Learning to Learn module supported them with their practices. The module was introduced into the schools Wellbeing programme. A common finding in the data reveal the regular meetings between the three teachers to plan, design and implement the module allowed them the opportunity to become familiar with the practices. Emma commented

we wanted to introduce Johnsons and Johnsons five basis elements to enhance cooperative learning throughput the module. The three of us became so familiar with the structures of cooperative learning I found it easier to use in class.

They described some instructional practices as difficult to use in certain subjects and were able to adapt these to suit their subject. These participants in their interviews described attributes of problem solving, commitment and an openness to change based upon their context. Emma spoke of using Bloom's Taxonomy in her Spanish class. She described the students trying to learn the language and needing to adapt the level of synthesis with the class to support their learning.

5.4.3.4 Time

Time was a challenge for two of the teachers in this school. The concern of the two teachers aligned with national reform. Emily found preparing students for Classroom Based Assessments (CBAs) impacted on her time to implement the practices. Her comment summarises this concern:

You attend the programme and get lots of great ideas but when you return to school you struggle to put the strategies into practice as schools are busy places. It's hard to organise and ensure these methods are brought into the classroom when you are under pressure to prepare students for orals and CBAs (Emily).

Aoife voiced a similar concern. She found *it is a challenge to prepare to use many of these great strategies as I am under pressure with school activities. Finding the time is difficult.* The support from the school leader and teacher agency supported both teachers to overcome this challenge.

5.4.4 School D

5.4.4.1 Engagement of school leadership

Both teachers agreed having the school leader competent in the knowledge of the programme is important to support teachers with implementation. The teaching principal, Lucy described feeling overwhelmed at the prospect of supporting herself and another teacher with implementation when they return to school. She outlined her concerns as *we have invested a lot to attend IL and we need to start using it in school. It hard to find the time with all my other commitments.* Ella would support this stated. She commented *it is good having the principal here, but she has a huge workload, she teaches and has a huge admin role too.* The data reports that the principal having the knowledge an understanding of the ILP is important but in the case of this school it hinders implementation.

5.4.4.2 Teacher agency

Both teachers commented on the importance of understanding the theory, knowledge and skills associated with the ILP. Ella referred to using active methodologies in her teaching for the last 12 years but didn't understand the impact they were having on student learning. She stated,

now I am able to take ownership of what I am doing in the classroom, before I would do a placemat but I didn't understand why I was doing it, now I know the level of impact it has upon their learning.

This would suggest the knowledge of the professional development programme provides deeper learning and practice for teachers enabling them to become more conscious of their instructional practice by stacking and integrating strategies, concepts, skills and tactics to improve their repertoire to meet the diverse needs of their students. This finding aligns with Imants & Van der Wal (2020) characteristics of teacher agency in professional development; the teacher as an active participant in the learning process and the teacher can enact change based on the complexity of their context.

Past experiences shaped the teachers in this school in implementing new instructional practices to improve classroom practice. As discussed above Ella acknowledged prior to commencing the ILP she used active methodologies in her teaching and tried to develop students into independent learners. She described how the professional development programme had shaped her knowledge around the theory of instruction and supported her in developing a language of learning for herself and her students.

5.4.4.3 Time

Time was a challenge for the teachers in this school as individuals and collectively to implement the practices in their classroom. Similar to the other three schools the teachers found it difficult to develop resources around the new practices due to constraints of covering the school curriculum and other school activities such as post of responsibility duties, practical subject exam commitments and preparing students for Classroom Based Assessments (CBAs). The teaching principal commented on this, *I find it difficult to get the time to plan for my classes as the ILP is such a huge shift of what I was used to. I have so much to do I find it difficult to develop the resources required.*

Her colleague reported she had issues with finding time to meet each other during school to discuss their progress in the classroom. They both valued the importance of discussing their experiences with each other. They felt the support of meeting each other was crucial for implementing new practice as it gave them time to share resources and ideas. They both expressed a desire to have an allocation of Croke Park hours together in a formalised aspect to meet to discuss their experience and plan to do this in the future.

5.4.4.4 Teachers' perceptions of student learning

Five of the participants revealed they were worried about how implementation would impact upon their students. One teacher commented *"I have been teaching for a while and I am comfortable with what I was doing. Now the learning in my class is messy. They are learning but it is messy"* (Ella). Ella's experiences would suggest she found

implementing new practices problematic. She further commented "*I was concerned how my students felt about the new IL strategies. They are results focused and I wasn't sure how they would adapt to the change*".

Both teachers acknowledged their personal beliefs impacted upon the students' perceptions of learning. Ella outlined *"I taught in a certain way for a long time, and it worked for me. I think the students picked up on my apprehension, certainly with concept attainment. They were not so keen to experience it again"*. The idea of students picking up on the teacher's apprehension for some practices was evident with two other participants. Lucy had a similar experience with a third year class. She described having reservations about using concept maps in class. She commented *"I was trying to teach a revision topic with a concept map, but the students thought it was a mind map. I got frustrated with them because they weren't getting the concept of it. They really played up to it"*.

5.4.5 School E
5.4.5.1 Teacher agency
There was evidence of low teacher agency with the three teachers in this school. They felt the professional development programme had shaped their knowledge around the theory of instruction and supported them in developing a language of learning for themselves and their students. Jack would agree with this

"*I have been teaching for over twenty years and now from doing this I have to change what I am doing. I felt what I did in the past worked for me. I look at my younger*

colleagues here and they adapt to this so quickly in their classroom. I now try to use a new thing after each session to become familiar with it".

Jack is struggling to achieve agency in his enactment of the new practices and his agency is impeded by the culture within the peer team. As discussed earlier in this chapter, there is poor collaboration and relationships among the three teachers from this school. Jack is viewing his younger colleagues' experiences as easier, but this is not the case.

Lily and Chloe outline similar experiences. They both use the instructional practices but when they have a bad experience, they were deterred from using them again. Lily commented *I had a classroom management incident when using concept attainment, it really turned me off using it again.* Chloe supported this by stating *the students didn't like using some of the strategies and that directed learning was placed on them and they were uncomfortable with it. Sometimes they became disrupted in class and that turned me off using some of the strategies.*

The poor relationships in this peer team have reduced the teachers' achievement of agency, inhibiting their capacity to address the issues they have encountered in their implementation of new practices. Meaningful engagement among the three teachers might have supported each other with introducing the new practices.

Collaborative cultures can strengthen agency among teachers, thus increasing the possibility of implementation occurring. In this case, the school leader should carefully

consider the relationships among teacher attending a programme to strengthen the possibility of agency (Priestly et al., 2015).

5.4.5.2 Time

Time was a challenge for them as individuals and collectively to implement the practices in their classroom. Similar to the previous four schools the three teachers discussed time constraints to develop resources around the new practices due to constraints of covering the school curriculum and other school activities such as post of responsibility duties, practical subject exam commitments and preparing students for Classroom Based Assessments (CBAs).

Two of the teachers expressed a desire to have an allocation of Croke Park hours together in a formalised aspect to meet to discuss their experience. This is expressed by Chloe:

We try to meet regularly to discuss what we are doing but that is even hard to find time when we are all free. We share our resources as much as possible but the other two have different subjects to me, so the resources don't match up, but they are a help. We would like to be in the position to use Croke Park time to meet to discuss.

5.4.5.3 Teachers' perceptions of student learning

Three of the teachers revealed they were worried about how implementation would impact upon their students. Chloe is a practical teacher and described the pressure students put on her to reduce the number of theory classes in her subject. She commented *"I thought the students would want to use the active methodologies during*

theory class. They only wanted to engage in the practical elements of the subjects. I didn't use the strategies as much as I would have liked".

The three teachers also acknowledged their personal beliefs impacted upon the students' perceptions of learning. The idea of students picking up on the teacher's apprehension for some practices were evident with two teachers. Jack commented *"I tried Jigsaw with a first year group. I was unsure about the structure of it but wanted to try it. I think they knew I was uncertain, and it was unsuccessful. I will be slow to use it again with them".* Chloe had a similar experience with a third year class. She described having reservations about using concept maps in class. She commented *"I was trying to teach a revision topic with a concept map, but the students thought it was a mind map. I got frustrated with them because they weren't getting the concept of it. They really played up to it".*

5.4.6 Summary of contextual factors to support change

All sub themes discussed above emerged across most schools and in the case of virtually most interviews. Evidence from the data reveals the effective characteristics of professional development are important but school-based factors in the case of the five schools support or hinder teachers' implementation of new instructional practice. The school requires collaborative structures, along with the principal/deputy principal understanding teacher change from a professional development programme.

It is important professional development experiences reflect teachers' backgrounds, contexts and existing knowledge and beliefs (Desimone et al., 2010; Garet et al., 2001). As discussed in the Literature Review, a change in attributes of values of teachers tend

to be more complex than a change in practice (Guskey, 2002; Hargreaves et al., 1992; Opher et al., 2011, Smylie, 1988). The teachers in school A and D discussed fear and habit as a factor to hinder change. These attributes have an impact on the participants implementing change and as outlined by Bennet (2020) teachers' concerns don't go away during a change initiative, they must be addressed, or the concerns become more sophisticated.

The findings highlight that teacher agency plays an important role in the teachers implementing and adopting the instructional practices from the ILP and would appear that past experiences and attributes of the participants are crucial. Teachers in school A and B experienced a high level of agency, school C teachers reported mid teacher agency and school D and E teachers experience low teacher agency. As Biesta et al. (2015) observed, agency is achieved "from complex interplay of individual capacity and collective cultures and structures" (p. 52) and this is achieved through ongoing professional development throughout a teacher's career.

 The finding on teacher agency is indicative of Guskey's (2009) goals for professional development, Fullan's (2016) three dimensions to educational change of a change and Imants et al. (2020) characteristics of teacher agency in professional development. All three models acknowledge two elements of educational change that ties to agency; (1) a change in belief, attitudes and values and (2) a change in instructional practices.

Time is a factor that has hindered a number of the teachers from implementing instructional practices. As discussed in the Literature Review, changing teachers practices requires time, effort and support at school level (Guskey, 2002).

5.6 Summary of findings

The research findings in this chapter convey how fifteen teachers in five schools responded to implementing instructional practices from a professional development programme. The following discussion chapter will explore the implications of the research findings for policy and practice in detail. The final chapter, the conclusion, examines the limitations of the study and areas for future research.

The research questions for this study emulated from two research aims. A reminder of the aims are:

1. To understand the experiences of teachers changing their instructional practices from a professional development programme.

2. To understand the influence of school context on teachers implementing instructional practices.

Within this summary, I will outline the main findings from each research question and the study's contribution to the field on teacher change.

Research Question. What are the experiences of teachers implementing new instructional practices?

The following section provides a summary of the main findings of teacher's personal experiences of implementing new instructional practices. The concerns, emotions and relationships reflect the experiences of teachers implementing new instructional practices from a professional development programme.

The SoCQ was a useful indicator to report the participants' concerns. The findings show the majority of the teachers were engaged at Stage 5- Collaboration and are interested in collaborating with others on the use of the instructional practices. Those teachers in school A, B and C teachers are seeking to work together to learn more information about the instructional practices.

The teachers in schools D and E report high and low personal concerns. Hall et al., (2015) report that personal concerns are usually in the early stages of change and indicate individuals are concerned about potential conflicts around the innovation with others. The teachers in school D experience high personal concerns and this suggests they are inexperienced users of the strategies. They also are in the very early stages of using the innovation.

The three teachers in school E experienced low self-concerns over the three phases. These concerns reflect uneasiness regarding the innovation, but they do not necessarily indicate a resistance to change. The CBAM literature reflects participants with a high Stage 2 may not be able to consider implementing the instructional practices until their personal concerns have been lessened. They require support from the ILP and the school to lessen their concerns to start implementing the practices.

Linking the findings to the development dimensions of the SoC framework, the data indicated the change process has been facilitated over the period of the three phases in schools A, B and C reporting a high level of concern for the teachers to work with colleagues to learn more about the innovation. Implementation of the instructional practices is occurring in those three schools. This would suggest the design of the ILP

supports the teachers with the element of peer coaching and the sustained period of time helps to develop collaboration.

Teachers experienced both positive and negative emotions. The positive emotions supported teachers with the use of the new instructional practices. The negative emotions had different effects on the teachers in each of the five schools. In school A, the negative emotions were eased during the implementation process. The negative emotions the teachers experienced were associated with the impact of the practices on their students. As students started to use the practices and become familiar with them the emotions of the teachers eased. In school B, the role of previous teachers in a school who had completed the programme supported teachers currently engaging in the programme. They supported their colleagues easing negative emotions.

In school C, the teachers experienced negative emotions upon their return to school due to a lack of confidence with implementing practices. This did not prevent them from continuing to implement instructional practices. In school D, the teachers' negative emotions impacted upon implementation. Their interest in the programme is impersonal and illustrate an adequacy to meet the demands about implementing new practices. They are aware of the importance of the instructional practices but are only willing to work with the ones they are familiar with. In school E, the three teachers had a negative reaction to implementing the instructional practices because of their school context and career stage. They are concerned how the practice impact on them and their subject area.

Relationships are a significant finding in this study. Relationships emerged as a key influence in teachers' emotional responses, especially to support participants to overcome any negative aspect of change. Positive relationships were a key feature in schools A, B and C to support the teacher move past negative emotions and support each other with implementation. Relationships with colleagues that had previously completed the programme was crucial for implementation in schools A and B. This indicates the use of peer teams, a group of teachers attending the programme together as a crucial element to implementation of the practices. A similar pattern occurred in school C, the teachers revealed how working on a Learning to Learn module supported each other with negative emotions thus helping with implementation.

Poor relationships with colleagues had an impact upon implementation. Poor relationships in the peer teams led to conflict in school D and E. In school E, the three teachers had a negative reaction to implementing the instructional practices and are non-users of the practices. An intervention is required at school level to support the teachers with the use of strategies.

Phase 5 – Collaboration

The teachers with a Stage 5- Collaboration phase five data collection reported they all wanted to network and collaborate with colleagues and other teachers on the programme to find out more about the innovation. The social value of sharing resources ideas and practices with others supported the diffusion of the innovation.

Contribution to the field of teacher change

The results from the SoCQ reported noteworthy findings regarding the concerns of fifteen teachers in five school and provided an opportunity to explore those concerns in relation to the implementation of instructional practices from the ILP. The findings found teachers concerns ranged from low self-concerns to high collaboration. In three schools (A, B and C) SoC reports the teachers are implementing the new practices from the ILP. The teachers in the three schools all indicate mid to high collaboration. The teachers are willing to collaborate with teachers in their school and others to learn more about the instructional practices. The design of the ILP has supported implementation for those teachers.

In school D the two teachers are inexperienced users and are recording high self-concerns. The high level of concern recorded by the teachers does not indicate they are unwilling to change but are unsure of how to make changes. This information can support the ILP to introduce measures to support the teachers with change. In school E, the low self-concerns reflect an uneasiness with change and require support from the ILP. As a result, the three teachers are non-users.

The findings indicate a change in teachers' instructional practices will bring a certain level of concern from teachers. This is to be expected and may result in teachers being reluctant to adopt the new practices until they are comfortable with them. If the concerns are left unmanaged, they may persist and can lead to the teachers becoming non-users. CBAM literature indicates it takes 3 to 5 years for change to be implemented (Hall & Hord, 2015).

As discussed in the Literature Review emotions play a crucial role in teacher learning. The fifteen participants reported both positive and negative emotions starting the programme and during the implementation process back in the classroom and this aligns with Van Veen et al. (2005). The findings view that teachers' emotions are dichotomously as either positive or negative. Positive emotions such as pride, excitement, joy and content were experienced by the participants, while negative emotions include anxiety, lack of confidence, anger and frustration (Sutton & Wheatley, 2003). This aligns with Day & Lee (2011) and Zembylas & Schutz (2009) as positive and negative emotions need to be considered an essential part of understanding how teachers' response to instructional change. The findings indicate when the negative emotions are not addressed, they impact upon implementation.

A key finding in this study is the relationships between colleagues. In the three schools there is evidence of positive relationships (school A, B and C) and implementation is occurring. In school D and E, the teachers are experiencing conflict resulting in negative relationships. This is having a direct impact upon implementation. Poor relationships and communication breakdowns emerged as a hindrance to teachers attempting to implement change in this study.

While Rogers (2003), Hall & Hord, (2015) and Fullan (2016) claim it can take 3 to 5 years for change to be implemented, three of the schools (A, B and C) reported the nature of change is being addressed by three factors. They include:

- Negative emotions are overcome in the three schools by aspects of the structure and design of the programme.

- School structures put in place to support collaboration, share practices and resources support implementation in the three schools. Structures such as the Breakfast Club (school B), Cosán workshops (school A), Learning to Learn module (school C) and the use of Croke Park time to share practice supports implementation.

- Positive relationships with colleagues supported implementation in the three schools.

Research Question. What are the factors that enable or hinder teachers changing instructional practise from a professional development programme?

Semi-structured interviews were used to explore the factors to enable or hinder teachers changing instructional practices from the ILP. A summary of the factors from the five schools are presented here.

At this stage, it is important to acknowledge the features of the programme to support teachers with their learning. The findings reported there were certain factors that supported participants with the implementation of the innovation related to the programme. They are discussed below:

1. The characteristics behind the design of the programme to support participants with implementation are: (1) the extended period of time; (2) cylindrical nature of the programme; (3) adequate time period sessions to use the practices.

2. The modelling and demonstration the participants experienced from the facilitator and other participants enabled them to understand and implement the practices.

3. The peer coaching model (a team of three teachers attending the programme) supported implementation.

Findings are evident that hindered participants uptake of the instructional practices:

1. The complex language of the theory of the ILP some participants found hindered their implementation.

2. Time hindered participants' uptake of the ILP from development of the resources, curriculum demands and length of class time.

Contribution to the field of teacher change

As discussed in the Literature Review chapter, the ILP was designed on effective characteristics of professional development. The findings from the study indicate the features of the programme supported implementation among teachers in school A, B and C. However, this was not the case in school D and E. The findings reported the programme characteristics hindered the teachers with implementation. Interventions are required from the ILP to ensure teachers are not hindered by some of those characteristics.

The ILP provided structured opportunities for teachers to work collaboratively in peer teams to support each other with implementation. This type of collaboration often provides teachers with changing their practices successfully (Joyce et al., 1995; Fullan, 2010). Successful implementation occurred in schools A, B and C due to peer coaching.

Providing opportunities for teachers to work collaboratively doesn't always work and this is evident in school D and E. Meaningful collaboration requires support and when

teachers are open to reviewing their own practice and changing it where a change is needed leads to implementation. In the case of school D and E, conflict and a lack of communication emerged within the peer teams leading to significant obstacles to their progress.

Research Question. How does school context support teachers' change their instructional practices?

Semi-structured interviews were used to investigate the role of school context on teachers changing their instructional practices. The data in this section overlapped with the data addressing the factor to enable or support teachers changing their instructional practices.

The school leader creates the conditions and the culture for collaborative sharing of learning in some of the schools. This is evident in schools A, B and C. In school D, the principal was in attendance but struggled with supporting her colleague due to workload.

Agency played a significant role in teachers' implementation of instructional practices from a professional development programme. In this study teacher agency was viewed as the intentional and helpful action of teachers to further their own professional development and that of their colleagues. This in turn relates to school context. Throughout the findings, teacher agency was apparent in three areas. They are: (1) the autonomy of teachers to enact and adapt the practices to suit their context; (2) the change of practices of teachers and (3) how teachers developed and used collegiately support to implement new practices.

In school A, two threads around teacher agency became evident from the data in this school. The autonomy of teachers to enact and adapt the practices to suit their context and how teachers developed and used collegiately support to implement new practices. The four teachers developed autonomy and problem-solving skills to overcome the challenges they experienced. The conditions and culture in this school supported collaboration and provided opportunities for teachers to change their practices. The teachers were active participants in their experience of professional development and implementation at school.

In school B, three themes of agency were evident. Collaborative cultures were established in the school by the school leaders to support teachers using the new instructional practices. Teachers had the autonomy to share their learning and experiences through peer observation and presenting at the Breakfast Clubs supported them with implementation. Collective teacher agency is evident among the three teachers. They established their own collaborative structure by establishing a resource folder. In school C, individual and collective autonomy supported implementation. The establishment of a Learning to Learn module for students supported them with the practices.

In school D and E there is low agency evident. In school D, the teachers were active participants in the learning process, the knowledge they learned about the practices supported them to use the practices in class. In school E, the three teachers collectively struggled with the enactment of the practices due to the culture within the peer team and within school context. For one teacher (Jack), he passively responded to his

learning (Imants et al., 2020) and in turn did little to implement the practices in the classroom. Poor relationships between the three teachers are impacting upon Jack to use the new practices.

Contribution to the field of teacher change

The findings from this study report each school journey of change is different and an individual's experience and decision to implement change (or not) can be dependent on one's school context. As discussed earlier, effective characteristics of professional development are important but school context impacts upon implementation.

In School A, B and C there is evidence of strong collaborative cultures among the teachers to support implementation of the instructional practices. The collaborative structures support improvements in teacher practice. Implementation occurs in these three schools due to the collaborative structures in place.

Meaningful collaboration requires support, and this is evident in the three schools. They have leaders who understand the knowledge of the ILP and have put structures in place to support the teachers. Due to this the teachers in the three schools are open to reviewing their own practice and changing it when required. Unlike School D and E, there is a lack of support from the school leaders, and this hinders implementation.

The findings report teacher agency underpinned the teachers using and engaging with the instructional practices. All teachers in the five schools showed evidence of at least one dimension of agency.

In particular, teachers in school A, B and C described having autonomy in their learning experience and were disposed favourably towards implementation. The teachers in these school also described having the autonomy to share their learning and experiences with other colleagues. The agency exhibited by the teacher's supported implementation. Teachers in these schools reported very few negatives, with many using their agency along with leadership support to overcome these negatives, which were mostly centred around using the strategies in class.

In school D and E, the teachers reported low agency. In these two school the teachers experienced highly individual nature of learning and practice with low autonomy for exercising agency over implementing the practices upon returning to school. School D teachers talked about past experiences of using different instructional practices shaping how their used the strategies. In school E agency shaped knowledge on instruction and supported teachers with a language of learning.

Chapter 6. Discussion of Findings

In the previous chapter I synthesised the major findings of this study according to the research aims and questions. In this chapter I will discuss the three key areas of the research I will use to act as a lens for this chapter. Then I will outline the key concepts through those lenses that emerged from the findings.

This study was designed to inquire into teachers experience of change along with the factors surrounding context to support or hinder teachers implementing new practices from a professional development programme. The data was collected from fifteen teachers from five schools who attended approximately twelve days of training over two years (two and a half days each session). The ILP, the programme used as a vehicle for this research, was designed to refine and extend teachers instructional intelligence.

Keep in mind that the findings in this study are not suggesting that the ILP is the ideal or only professional development programme to support teachers to change their instructional practices. Rather, the findings of this study do illustrate how one approach, the ILP, was designed and implemented as a focus to explore teachers' experiences of a professional development programme and their experiences in their school contexts.

In discussing the results, I will also keep three key areas of the research in focus: (1) the personal experiences of teachers to change; (2) the conditions to support teachers

with the transfer of learning from the professional development programme to the classroom and (3) the school conditions that enable the implementation of new practices.

Below I present a diagrammatical summary (fig 6.1) of the findings that integrates all dimensions of the change phase (initiation to implementation), and the three main themes of the discussion as outlined above along with the conceptual framework.

Figure 6.1 Summary of the findings, the theoretical framework, the conceptual framework and the areas of the discussion
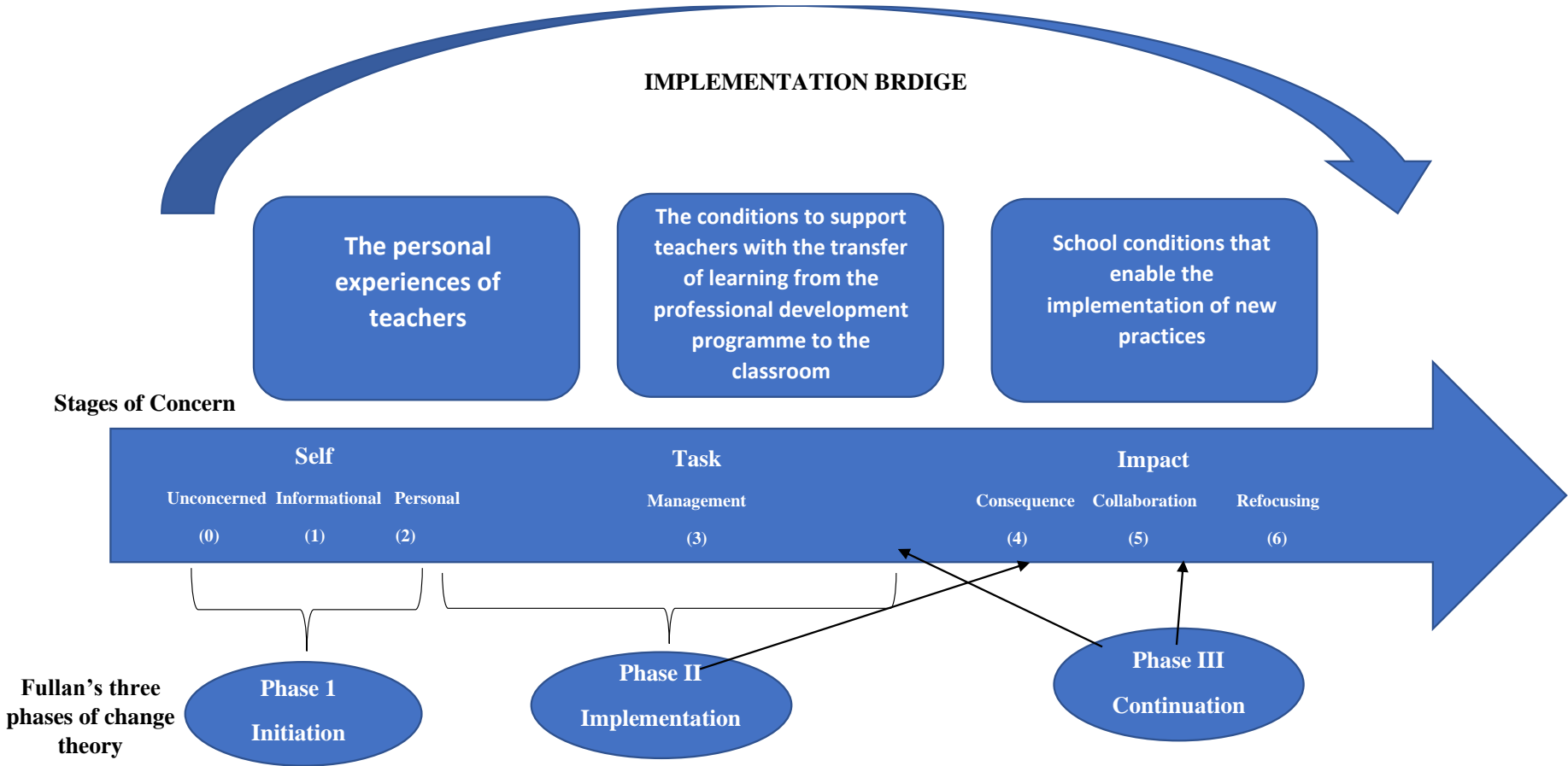
6.1 The personal experiences of teachers

The purpose of this study was to explore the perspectives of fifteen teachers from five schools engaged in a professional development programme and how school context and culture support or hinder teachers' implementation of new instructional practices. With this in mind, an entire school does not change until all individuals have changed within it. In other words, there is an individual aspect to organisational change (Fullan, 2007; 206; Hall et al., 2015; Rogers, 2006). Associated with individual teachers experience of change, teachers experience different responses to change. In this section, I discuss the personal side of change, the concerns and emotions teachers experience engaging in an educational change process in the five case schools (Fullan, 2010; Guskey, 2002; Hall et al., 2016; Saunders, 2014). Subsequently, I will outline the role relationships play in supporting implementation of an innovation and I will finish with a discussion on teacher agency.

6.1.1 The concerns of teachers

Hall et al. (2015) work on the Concerns Based Adoption Model (CBAM) particularly the Stages of Concern was employed to provide a sense of wisdom for teachers to understand what to expect as they worked at implementing instructional innovations.

Traditionally, evaluation of a professional development programme occurs at the conclusion of it. In contrast, in this study SoC explores teachers' concerns at three points during their engagement with the programme, providing an understanding of their concerns at any one point. Examining this data at

multiple points assisted in the tracking of progress and identified their personal experiences towards change.

The SoC is designed to identify individual concerns and is part of understanding the dynamics of change and this knowledge can inform the design and provision of ongoing strategies to meet the needs of participants (Hall et al., 2015). The knowledge of both individual and group SoC is valuable for informing the change process. For example, the teachers in School D and E reported Stage 2 Personal concerns and have a negative reaction to implementation. CBAM literature would suggest that they are possibly non-users of the innovation and may be experiencing a resistance to change. However, one must be conscious of the fact that they are early users of the instructional practices and commencing the change process. The work of Fullan (2016) and Hall et al., (2015) acknowledges that change can take 3 to 5 years to be implemented. The data from the findings provides a valuable insight for professional development providers and indicates that relevant supports could be designed and implemented as part of the programme to assist the participants in dealing with their personal experiences of change.

In three schools (A, B and C) teachers engaged in collaborative learning such as Teaching and Learning Clubs, Cosán workshops and Team-Teaching. The SoC identified collaborative concerns from these case schools. This finding can be used as a prompt to put structured supports in place for teachers to collaborate between sessions and upon their return to school as a means of supporting their continued learning.

The SoC provides insights into the concerns teacher experience of change. This information is useful, but it is limited in the experiences of relationships and emotions teachers experience when engaging in a change process. The data doesn't provide information into the narrative of individual experiences when engaging in professional development or upon their return to school. The next three sections provide further insights into the teachers experience of change.

6.1.2 The role of emotions

Acknowledging the complexity of educational change, it is crucial to understand the emotional experiences of teachers. Change is highly personal and provokes responses (Hall et al., 2015; Fullan, 2106). Any response will have an impact on teachers' implementation of instructional practices. Even when change is facilitated and supported effectively, emotions and relationships impact upon implementation of instructional practices (Schmidt & Datnow, 2005; Saunders, 2014).

The findings of this study report teachers experience a range of both positive and negative emotions during the change process. The findings also support the view that emotions play a role in teachers' experience of change. The emotions teachers experienced were cyclical in nature and emotions were impacted by interpersonal relationships with colleagues and feelings of isolation. The environments teachers operated within also played a factor in their emotions (Hargreaves, 1998; Sutton et al., 2003; Scott et al, 2009).

The literature reveals negative emotional responses tend to inhibit teachers implementing change. In this study, the analysis of the data identified one teacher (Jack), who reported that his engagement with the programme was a source of frustration because he had very little interest in changing his instructional practice at this stage of his career. Not addressing this emotion had an impact on his implementation of the instructional practices at school level. Jack may have benefitted from interventions at programme level to address his negative emotions. Such interventions could be designed to provide Jack with individual accountability benefitting the individual teacher, the school, and ultimately student learning. When emotions are addressed and managed positively it will support teachers to change their practices (Van den Bergh et al., 2014; Cross & Hong, 2009).

The emotional experiences of teachers undertaking a professional development programme needs to be considered in the design and facilitation of the programme to ensure a sustainable change in teachers' instructional practice. Findings from this study report emotions are cyclical in nature and can be experienced at any stage of the change process. This suggests that time and space need to be incorporated in professional development programmes allowing teachers discuss their emotional experience around change at all levels. Having a structured time to engage in this conversation may support teachers to implement innovations from professional development programmes (Chen, 2016; Hargreaves, 2005; Saunders, 2013).

The findings also report emotional reactions around school context. This aligns with the literature of schools being rife with emotional occurrences (Hargreaves, 2002). The findings indicate teacher emotions are linked to their attitudes towards change and are influenced by the schools they operate in and their relationships with colleagues. Findings from this study provide evidence of the importance of relationships and the influence of emotions during a change process. Evidence from the data reveals that the peer-teams with strong collegial relationships overcame negative emotions and supported each other during implementation, suggesting that having the support of positive relationships is pivotal for teachers during a change process. School leaders need to be aware of the link between relationships and emotions and provide teachers with structured time to work together and build positive relationships. Such positive relationships can be a source of support for all members of the peer-team.

6.1.3 The role of relationships

A key finding from this study is that positive relationships play a key role in teacher collaboration and the implementation of a change in practice, even when barriers to change existed. Evidence from the data gathered in this study suggests activities such as peer observations, informal conversations, participation in Teaching and Learning Clubs and Team Teaching supported the development of positive collaborative cultures. Such positive collaborative cultures in turn supported peer-team members in the enactment of a change in their instructional practices and subsequent impact on student achievement (Cross et al., 2009; Evans, 1996; Saunders, 2014). In contrast, the findings also

showed that negative or unsupportive relationships hindered individual teachers in implementing change.

For change to occur in schools, peer-teams need to establish positive relationships that promote learning and capacity building (Darling-Hammond et al., 2009; Gore & Rosser, 2020). Acknowledging the empirical research on teacher collaboration in educational change, Hall et al. (2015) states educational change is a complex process with little attention focussed on the interpersonal relationships between individual teachers during a change process.

Theories of change recognise the importance of professional collaboration among teachers (Fullan, 2016; Rogers, 2003). The ILP is designed to address this by developing a collaborative culture among the peer-teams during the programme, upon their return to school, and among teachers from across a range of schools. However, evidence from the findings suggests that a collaborative culture was not nurtured in one school, resulting in a poor relationships within one peer-team (school E) was a barrier to implementing change.

The peer teams need to have the ability to work together and form positive relationships to ensure they can implement change upon return to school. A school leader selects and sends a peer team to the ILP sessions but needs to be aware of the personality and professional traits of the individuals to form positive relationships so as to ensure the teachers return to school to implement

change successfully. Leaders assuming that the peer team will work successfully together and form supportive relationships to navigate change is naïve. The peer team needs to have the ability to work together and have the ability to form positive relationships.

Findings from this study conclude relationships among colleagues are crucial to support implementation. A key insight for school leaders is deciding on teachers to send on a professional development initiative is to ensure members of a peer team have positive relationships. Schools pay vast sums of money on professional development, from the cost of the programme to the cost of covering classes for absent teachers. To ensure implementation upon return from a programme relationship between colleagues need to be positive.

6.1.4 The role of teacher agency in educational change

In this study I explore teachers experiences of implementing practices from a professional development programme. Professional development programmes are set to support teachers with implementation of new pedagogies and/or curricular changes. With this in mind, agency plays a central role for teachers in deciding to implement (or not) their learning from a professional development programme. Teachers always enact agency, even when they chose not to act or seem to passively implement practices (Brodie, 2021). In this section, I focus on the two categories to emerge from this study on agency. They are: (1) the autonomy of teachers to enact and adapt the practices to suit their context; and (2) how teachers developed and used collegiately support to implement new practices.

6.1.4.1 Autonomy to implement new practices

Teachers' autonomy, willingness and motivation to implement instructional practices were significant factors in some teachers' successful implementation of the practices. Autonomy deals with the ability of teachers to take intentional, helpful action to further their own professional development and that of their colleagues, teachers are active participants in their professional learning and upon return to school enacting the new practices (Imats et al., 2020). One key feature of the findings was the ability of teachers to recognise when and why they were using certain practices in their lessons with groups of students with challenging behaviours. The awareness and the knowledge of the practices the teachers had was pivotal to enhance the teaching and learning experience for themselves and their students. this knowledge supported teachers with the sustainability in the use of the instructional practices.

Professional development is a complex process, made up of teachers and school level systems (Opher et al., 2011). Derived from this teacher's enactment of practices belongs in their agency and as discussed in the literature review when teachers engage in professional development, they are motivated to change practices when they experience positive collaboration with colleagues and a supportive school environment (Priestley et al., 2015). This is evident in the findings of this study. The findings reflect most of the teachers understanding new knowledge from the implementation of the instructional practices from the ILP. The findings in this section described past experiences as having an impact on them changing their practices.

There was evidence of low agency in school D and E. In particular, in school E, Jack exhibited a passive response to the professional development programme and was reluctant to implement his new learning. Even though Jack is not implementing he is still using his agency in the form of not acting upon his learning (Brodie, 2021). Jack's agency is also linked to his context and to the relationship he has with the other two teachers in his peer-team It is crucial for professional development programmes to be aware of low agency, like Jack's experience. School context, the peer team and low agency resulted in Jack not implementing the practices. If the organisers of the programme are aware of his experience, they may be able to put something in place to support Jack.

6.1.4.2 Collaboration among colleagues

Acknowledging the importance of factors to support teachers as change agents (Fullan, 2007), a motivation to work in a collaborative group is derived from the willingness of a teacher to engage actively with their professional learning. This is evident from the findings of this study. Three school leaders in their schools had established either a formal or informal collaborative culture to support teachers with the implementation of instructional practices. The teachers in the three schools acted as agents of change to facilitate and share their learning with other teachers (Fullan, 2016). This provided the teachers with structured opportunities to reflect upon their practices and engage with colleagues to find improved ways of demonstrating the practices in class. A

key feature with the three schools is the supportive environment for each teacher to develop, leading to sustainability of the practices.

Teachers learn in ways that are professional, personal, singular and collaborative and return to school to implement their learning both in a single capacity and collectively with colleagues. I discussed in the Literature Review that for individuals and schools to be successful with change an Implementation Bridge is necessary (Hall et al., 2015). Each member of the team has to move across the Implementation Bridge and moving across the Bridge can be difficult with schools experiencing negative outcomes. To ensure schools experience a positive move across the Implementation Bridge teacher agency is crucial. Teachers having the capacity to actively contribute to shape their work and the work of their colleagues is pivotal. The use of collaborative structures alongside peer coaching will support schools to have a positive outcome and enable them to move individuals across the Implementation Bridge.

6.2 The conditions to support teachers with the transfer of learning from the professional development programme to the classroom

No one expects new learning to transfer immediately into effective practice. Policy makers unwittingly, and too often assume, that if the correct contextual factors are in place the transfer of learning from the workshop to the classroom happens (Darling-Hammond et al., 2017; Guskey, 2002). Unfortunately, that is not always the case and features of the ILP need to support contextual arrangements in a school.

Initial implementation of new learning for teachers is rarely problem free. For example, both the features of professional development programmes (workshops, courses) along with school culture and the support of the principal play a pivotal role in determining whether or not innovations are adopted and refined. As outlined in the literature, there are a number of features of professional development to support teachers with their learning (Borko, Jacobs & Koellner, 2010; Darling-Hammond, 2017; Darling-Hammond & McLaughlin, 2011; Garet et al., 2001; Guskey, 2009; Opfer & Pedder, 2011; Wayne, et al., 2008). When these features are successfully enacted with school culture, they can support teacher's implementation. Below I discuss two features that emerged from this study that support school culture and align with teacher's implementation of new practices. I acknowledge that the features did not support all teachers in each of the five schools in this study.

6.2.1 Extended period of time

Research clearly shows that teachers working to acquire new practices from a professional development programme is not achieved by a one-time workshop; but rather, is an on-going collective process that involves teachers working together to progressively increase their understanding and competence in the way they apply instructional innovations (Hall et al., 2015). Any instructional change takes time for teachers (and students) to get to a level of practice that results in impacting student learning; Hall et al. (2015) and Rogers, (2003) research shows that it can take three to five years for new innovations to become embedded as an effective practice.

The extended period (four sessions over two years, each session lasting two and a half days) supported most teachers to develop knowledge and capacity. Providing teachers time to engage with the programme content (Garet, 2000; Garet et al., 2001) rather than a brief once off workshop (Darling-Harmond et al., 2017) provides teachers a platform to trial and reflect (Joyce et al., 1995) upon their learning. The findings reported the time between sessions allowed them to reflect upon this learning, examine their values around the new instructional practices and discuss their experiences in their peer-teams. A once-off workshop would not have provided this experience for the teachers.

6.2.2 Peer coaching

The concept of Peer Coaching relates to several elements in the findings of this study: teacher collaboration, collaborative cultures in a school and the role of relationships in change. All three of those key concepts also relate to the culture of individual schools in particular referring to the concerns and norms that operate within an organisation (Guskey, 2002; Hargreaves, 2000). Those factors connect to the extent teachers and school culture support implementation of instructional practices. Through this lens I will discuss how peer coaching has supported teachers with the transfer of learning from the workshop to the classroom.

At each session, teachers receive Information, theory, demonstrations, and the opportunity to practice and receive feedback on their learning. Those are four key parts of the Peer Coaching process as defined by Joyce and Showers

(1982); the fifth is the collaborative support in the workshop and back in the classroom. The structured opportunities for collegial and collaborative activities among the participants during the workshop was crucial for the uptake and a key element in the transfer of the learning to implementing the innovations back in the classroom.

During the programme teachers experienced co-teaching and modelling and had the opportunity to practice and give each other feedback. In many cases upon return to school, the participants supported each other with the implementation of the innovation through peer observations, sharing their learning in collaborative structures such as Breakfast Clubs and Teaching and Learning Clubs. The participants experienced reduced feelings of isolation, developed strong collegial relationships and supported teachers to develop a reflective practice around their individual classroom practice. Teachers had the opportunity to visit other classrooms to view the practices, attend "Breakfast Clubs" and Cosán workshops supported them with implementation.

Peer Coaching is not always beneficial, in particular, when providing opportunities for teachers to work together and it doesn't work out. When teachers are required to work together collaboratively in some cases it leads to conflict over emotions, values and relationships. The findings from this study indicated that relationships in one peer-team reported the teachers experienced poor communication and conflict which created difficulty in the team implementing change in school.

Another issue arose with the above peer team. This team's school leader had completed the ILP but was not an active participant when the teachers returned to the teachers returning to school. The team also had no support from previous colleagues' engagement in the programme to implement the practices. This lack of collegial support from other teachers in their school along with their school leader inactive in the use of the ILP was a barrier to implementation. In instances like this, a structured collaborative structured collaborative activity could support the team to manage conflict over emotions, beliefs, values and relationships.

A key insight into successful peer coaching is the need for school leaders to set allocated time and space for teachers to meet to discuss the implementation of instructional practices upon return from school. A structured meeting time will help teachers to share resources and ideas along with supporting the teachers to deal with the concerns and emotions they experience from implementing new instructional practices.

6.3 The school conditions that enable the implementation of new practices

Educational change is dependent on context with a greater emphasis required to examine the role of school context for teachers to successfully implement an innovation (Fullan, 2016). The findings from this study found local characteristics such as collaborative cultures and school leadership play a pivotal role in teachers implementing (or not) instructional practices upon their return to the classroom. Both of these key elements are influenced by the school context, and this builds new conceptions around instructional practice.

In this next section, I will discuss the role of collaboration along with the role a school leader plays in teachers implementing new instructional practices.

6.3.1 The role of school leadership

In this study, school leaders contribute to teachers' professional development directly through actions they take to shape school conditions. They influence professional development indirectly by providing access to learning opportunities and school structures to support their learning. In the case of three schools in this study, the school leader created the conditions and the culture of collaboration to support teachers with implementation.

The findings report the role of the principal, or the deputy principal is crucial for the implementation of the change process when the teachers return to school. Leadership support is crucial for initiation and implementation of the practices (Fullan, 2016). The school leader in most cases established a collaborative mechanism in the school to support implementation of new practices. The findings report teachers do not have the same capacity to develop a whole school approach to change (school D and E), but they have the capacity to affect change in their classroom (Leithwood et a., 2009).

The findings also conclude it is crucial for the school leader to complete the professional development programme to support teachers with the change process. One peer team had less effective communication (school E) amongst each other and this in turn had developed poor relationships. Considering the financial costs of the programme and also the substitution costs of covering the

teachers attending the programme, the principal needs to ensure the teachers attending the programme are in agreement to work together and are willing to support one another Should this not happen, no norms for collaboration, which may adversely affect collegiality and school culture. Consequently, this would mitigate against effective change. An example such as this is the reason a school leader's attendance is required on the programme.

6.3.2 Collaborative cultures

One piece of evidence from the findings found peer coaching, when enacted, supported staff to work together. The findings from this study concluded that collaborative cultures in conjunction with peer coaching in three schools supports teachers with the implementation of the practices. All collaborative activities discussed in the Findings chapter related to supporting the implementation of the instructional practices with the teachers reporting added value to their professional learning experience by having a structural opportunity to engage in modelling, demonstration, reflection and feedback in a formal capacity in their school.

All five schools peer-teams were composed of two to four teachers. The establishment of those peer teams for teachers to attend the ILP together should support the teachers with implementation of the new or refined instructional practices upon return to the classroom. Successful implementation occurred in three schools (a, b and c). In those three schools, collaborative cultures were developed by a school leader or the peer team either on a formal or informal basis (Wenger 1998; Hall et al., 2015; Lave & Wenger, 1991) to support the

implementation of practices. The diffusion of practices was a key feature in three schools, but active school leadership was required to develop the collaborative settings in each of the schools and to support teachers with implementation of the new practices from the workshop to the classroom. After session 2, teachers in three schools started to facilitate sessions in their schools to share their learning and experiences with other colleagues. The diffusion of the practices among the teachers supported them with a change in both their practice and their concerns. The findings outlined how it is crucial for the teachers to reflect on their learning with their colleagues in their peer teams and the wider teaching staff in the school. The collaborative cultures provided a safe environment to learn collectively in their own school. This is highly significant given the literature showing teachers value collaborative practices (Opher et al., 2011) and those collaborative practices impact upon the values and concerns of teachers (Hall et al., 2015; Stoll et al., 1996).

The lack of presence of an active school leader (school D) in one team resulted in a lack of collegial functioning of the members of the team. The presence of an active school leader may have addressed the teachers in the team who were withdrawn or struggled with the transfer of learning from the workshop to the classroom. The school leader's role could have sufficiently ensured collegial functioning of the team by addressing their concerns of a change of practice and beliefs.

Greater focus needs to be placed on the context of educational change, in particular at the implementation phase of the change process (Fullan, 2016).

Aligning with the research an understanding of the complexities of individual experiences, school context and how the individual interacts with colleagues in school will support policy makers to plan and implement initiatives within schools. Key to this is teachers implementing change in different forms but sustaining change is more difficult to achieve. To achieve change over a period a number of design elements are required for professional development programmes and school cultures to support teachers' return to implement their learning. The ability of teachers returning to school to establish collaborative cultures to diffuse their learning to others in the school will support them to sustain their practices. A key insight for the ILP is for the programme to provide teachers with the knowledge to develop and facilitate collaborative cultures in their schools. As teachers attending the ILP they experience peer coaching, but they lack the knowledge to diffuse to other teachers in their school the new practices through collaborative cultures and at staff meetings. The teachers expressed in the findings a desire to share their learning with others.

6.4 Conclusion

In this chapter, I have outlined the key concepts from the findings through three lenses:

(1) the school conditions that enable the implementation of new practices; (2) the conditions to support teachers with the transfer of learning from the professional development programme to the classroom; and (3) the personal experiences of teachers to change. Each lens reflects the experiences of

teachers implementing new or revised practices from a professional development programme.

Chapter 7. Conclusion

In this section I will provide an outline of the research approach for this study. Then I will identify the limitations of the study. Following that I will provide suggestions for further research and finish with an outline of my reflexive approach.

7.1 Summary of the research approach

This study set out to explore teachers' experiences during a professional development programme. The factors that support or hinder teachers surrounding context with implementation was also explored. The Theoretical Framework Fullan's Theory of Change (2015) informed the research design, aims and research questions for this study.

In seeking to address the research gap of teacher change from a professional development programme in Ireland a multisite cased study informed the design of the study. Fifteen teachers from five post-primary schools took part in this study. A brief reminder, the data was collected and analysed in the following sequences: (1) Phase 1 a Stages of Concern Questionnaire was completed by all fifteen participants in October 2019; (2) Phase 2 a Stages of Concern Questionnaire was completed by all fifteen participants in March 2020; (3) Phase 3 fifteen teachers completed semi-structured interviews between June to October 2020; (4) Phase 4 a digital Stages of Concern Questionnaire was

administered to all fifteen participants in June 2020 and (5) Phase 5 six participants engaged in semi-structured interviews based on their SoC peak scores between October- December 2020.

The qualitative (semi-structured interviews) data analysis method encompassed a six-step approach to thematic analysis (Braun & Clark, 2006) and the SoC questionnaires were analysed using the SoC scoring device and entered onto the American Institute of Research Stages of Concern Administration site.

7.2 Limitations of the research

New insights were gained from the findings of this study, but there is still much to be discovered about professional development impacting on the educational system. The conditions for teaching and learning both within schools and the wider system can inhibit the effectiveness of professional development. Three limitations were evident from the study. First, this study is a multi-site case study of fifteen teachers from five schools participating in a professional development programme. As this research is a case study, the findings cannot be generalised to all schools undertaking professional learning. The research findings can provide key recommendations for policy and practice in professional learning.

Second, the ILP has 100 participants approximately engaged with each session. Fifteen teachers engaged with this research. Having more teachers engage with

the study would provide more information about teachers' implementation of instructional practices.

Third, my position as the researcher in this study. I outlined in chapter four my position and my relationship with several participants in this study. First, I am Deputy Principal in a post-primary school in which four participants from this study work. Second, I am a member of the Steering Committee for the Instructional Leadership Programme. Both positions and relationships with the participants may have impacted upon responses from the participants. In chapter four I outlined the steps I took to ensure I addressed areas of validity, reliability, and power relationships.

7.3 Suggestions for further study

This study presents a multi-site case study to understand teachers experiences of implementing instructional practices from a professional development programme and the transfer of learning to the classroom. Several new insights have emerged from this study, as well as some of the findings aligning with previous studies. There is still much to learn about the affective nature of change, teachers' emotional experiences, teacher collaboration and collegiality and the role school leadership plays in supporting a culture of change in a school. Five recommendations are suggested for further study:

1. This study explores the affective nature of change on fifteen teachers from five post-primary schools in Ireland. The study does not examine the behaviour aspects of teachers changing their practices. Further

investigation into this area could be to use CBAM's Levels of Use to understand teachers' behaviour of changing their instructional practice during their participation in the ILP.

2. The findings from this study revealed the role of a school leader was pivotal in supporting teachers with implementing instructional practice. Further research is required on the impact of a principal on instructional leadership in a school.

3. Further investigation into the role of relationships in supporting or hindering the implementation of instructional change is required. Findings from this study reported that relationships have both a positive and negative impact on teacher collaboration. Additional research is required on how collegial relationships can provide a support or a barrier to change.

4. Evidence from the findings report that collaborative cultures in schools act as a vehicle to support instructional change. Further investigation into the complex nature of formal collaborative cultures such as professional learning communities to ascertain the impact they have on implementation is required.

5. Several teachers reported a SoC peak score of Stage 0/2. This reveals some of them are non-users of the innovation. An investigation into their perception and concerns could be carried out two years after completing the ILP to provide information on their SoC then.

7.4 A reflexive approach

In this section I will provide a personal perspective of my doctoral journey outlining the nature of teacher change, particularly as a school leader, practitioner and member of the ILP programme steering committee. The Instructional Leadership Programme is the vehicle used to explore the teachers' experiences of professional development in this study. I completed the programme as a teacher and I am now a member of the Steering Committee.

I worked as a teacher in the United Kingdom for several years early in my career. At that time, the education system was bound in reform initiatives emerging from political, economic and social agendas. The introduction of a National Curriculum placed teachers' instructional practices at the forefront of this agenda. At the time, public accountability was increasingly visible with leagues tables, inspections, performance management and media coverage placing pressure on schools to raise standards. Teachers were mandated to engage in professional development aligned with national policy and public scrutiny. As a teacher, I was required to document, record and evaluate my learning and to set targets for performance management. This raising standards agenda dominated the professional development experience for me as a one size fits all for schools. Little attention was paid to the individual school, their needs and the requirement for teachers. I also experienced a reform agenda at junior cycle level in Ireland over the last eight years. Similar to the UK, a public accountability of teaching and teacher professionalism has emerged in Ireland placing an emphasis on improving the practices of teachers. The approach to professional development of teachers as part of this reform in

Ireland to me was very different but the core of the reform was to improve teachers' practices.

As I reflect on both those periods of my career at the outset of this doctoral journey, I considered the focus of my research and I decided to explore teachers' experiences of professional development. My motivation to focus on teachers' experience aligned with my own experiences of professional development. I discussed in Chapter 4 of this study, I have been involved in the area of professional development for almost my entire career, as a practitioner in the classroom, a facilitator of professional development programmes and in recent years I have been involved in the design and implementation of professional development initiatives aligned with national policy. I wanted to explore the experiences of other teachers in their schools and their perception of changing practices from a professional development experience.

7.4.1 Teacher change

As a teacher I have viewed professional development as an opportunity for a teacher to upskill, improve or refine their practice resulting in an improvement in student achievement. This singular perspective for me placed professional development as a process of inputs and outputs. The teacher attends a workshop (input), learns new practices (input) and returns to the classroom and implements the new learning (output). My views on professional development have changed over the course of this study. I now view professional development as a complex structure comprising of complex elements that need

to be supported so a successful transfer of learning occurs from the workshop to the classroom.

I am conscious of how much my personal opinions have evolved as I reflect on my doctoral journey. In particular the concerns and emotions teacher exhibit during a change process. I now realise how complex professional development is, with differing views of teachers at different stages of their careers. Those views, concerns, emotions when left unaddressed can lead to a lack of engagement with a teacher's professional development journey. I now believe the effective characteristics of a professional development programme is crucial for a teacher to learn but school context and the structures in place to support teachers with implementation are just as important.

7.4.2 As a school leader

The process of this doctoral research has afforded me with a personal and professional insight into teacher change. This new knowledge has provided me with much valuable information to make more informed decisions as a school leader. At the same time, the complexity of this new information has made me aware the complexity for teachers to transfer new learning into practice.

As I reflect on this journey, I agree with Hall & Hord (2015) and Rogers (2013) views on teacher change who view change is highly personal and each teacher has different experiences that impacts upon implementation. Change takes

time. It does not happen straight away with teachers needing support to change their practice. This study identifies two supports that are required at school level. First, the school leader needs to understand the knowledge of the change initiative. Second, collaborative structures need to be in place in a school to support the teachers implement new practices.

As a school leader I am conscious of the responsibility to ensure teachers receive high quality professional development and implement their learning back in the classroom Prior to starting this doctoral research, I never asked a colleague what concerns or emotions they experienced through a change process and how did it impact upon their learning and practice. Those two personal experiences impact implementation for teachers and this is something I have become aware of as a school leader. Concerns and emotions need to be recognised and acknowledged to support change.

Teachers work simultaneously (but not at the same pace) on implementing new practices from a professional development programme. This research acknowledges the need for teachers to work in collaboration with one another. As a school leader I am conscious of putting in place collaborative structures to support teachers with implementation.

7.4.3 As a member of the Instructional Leadership Programme Steering Committee

The journey of this study has provided new insights for me as a member of the steering committee. I am aware teachers are intrinsically motivated to take ownership of their professional development. As aligned with the findings in this study, the ILP fosters a culture of professional development based on teachers' active engagement in their own learning and that of their peers. Key elements of the programme involve providing teachers with an experience of active learning, reflective practice, attending the programme in peer teams to support collaboration and providing a school leader with the knowledge of the practices to support implementation. Those key elements are required for successful implementation to occur for teachers.

The importance of those key elements has become evident for me with the Teaching Council's Cosán framework for teachers' learning (2016). A consequence of this framework is a requirement for teachers to engage in professional development. The framework places considerable emphasis on teacher professional development and reflection as a means of sustained professional practice. It also acknowledges professional development is based upon a teacher been actively engaged in their own learning. This places a priority for professional development along with recognising teachers as autonomous learning. Teacher autonomy is evident throughout the study and a key feature for teacher change. If a teacher is willing to teacher, teacher can

occur, but the correct structures are required at professional development level and at school level.

As I draw to a close on my doctoral journey, I have become aware of the complex nature of professional development and teacher change. I feel the context of my research provides a valuable insight into the experiences of fifteen teachers from five schools engaging in the professional development. Their stories provide a glimpse of how change can occur in schools. It also provides lessons for the ILP and school leaders on how change does not occur. My research has helped me understand that change is complex, slow, messy, requires time and school supports to be successful.

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Appendix 1. Phase 2 Initial Codes

Code	Description	Sources
Agency	Evidence of participants adopting the new instructional practices to suit their own context, use of autonomy in implementing new practices.	28
Challenges of Change in Practices and Beliefs	The challenges teachers experienced in implementing new practices.	47
Comparison to other CPD	How the ILP compares to other professional learning programmes and initiatives.	6
Confidence Efficacy	Improvement in teachers confidence in implementing new instructional practices.	20
Design of the programme	The layout of the programme	12
Diffusion	Sharing of a new instructional practice with other teachers in school.	39
Emotions	The feelings teachers experience while engaged in the programme and implementing a new instructional practice.	40
Experiences of using strategies	The experience teachers had of implementing new practices.	40
Identity	The beliefs, values and commitment an individual views for being a teacher.	13
Learner Outcomes	The new instructional tactic, skills, concepts and strategies the teacher learned on the programme.	12
Not Subject Specific	The programme is not only related to subject specific learning.	4
Past Experiences	Positive and negative events that impact upon a teachers practice.	6
Peer Coaching	Two or more colleagues working together to share practices, reflect on practices, share ideas and resources.	11
PLCs	Sharing of the instructional practices in a formal capacity in school through Teaching and Learning Clubs, TeachMeets, Cosán	7

	Workshop and Croke Park time.	
Prior knowledge of the programme	Preconceived information teachers had about the ILP.	6
Reflections	How teachers reflected on implementing new practices.	4
Teachers perception of Student Experience	The teacher's perception about how the student feels about the new instructional practice.	32
Support from Leadership	How the School Leadership supported teachers engagement in the programme.	18
Theory and Research	The theory and research behind the programme.	18
Time	Time dedicated to implementing new instructional practices in school.	7
Working with Colleagues	The experiences of working with colleagues in implementing strategies.	33

Appendix 2. Phase 2 Searching for Themes

Code	Description	Sources
Agency	Evidence of participants adopting the new instructional practices to suit their own context, use of autonomy in implementing new practices.	28
Collaboration		
PLCs	Sharing of the instructional practices in a formal capacity in school through Teaching and Learning Clubs, TeachMeets, Cosán Workshop and Croke Park time.	7
Diffusion	Sharing of a new instructional practice with other teachers in school.	39
Peer Coaching	Two or more colleagues working together to share practices, reflect on practices, share ideas and resources.	39
Working with Colleagues	The experiences of working with colleagues in implementing strategies.	33
Emotional Responses		
Emotions	The feelings teachers experience while engaged in the programme and implementing new practice.	40
Confidence Efficacy	Improvement in teachers confidence in implementing new instructional practices.	20
Identity	The beliefs, values and commitment an individual views for being a teacher.	13
Past Experience	Positive and negative events that impact upon a teachers practice.	6
Reflections	How teachers reflected on implementing new practices.	4

School Leadership	How the School Leadership supported teachers engagement in the programme.	18
Hinder Change		
Time	Time dedicated to implementing new instructional practices in school.	7
Design of the Programme		
Design of the Programme	The layout of the programme	12
Comparison to other CPD	How the ILP compares to other professional learning programmes and initiatives.	6
Learner Outcomes	The new instructional tactic, skills, concepts and strategies the teacher learned on the programme.	12
No Subject Specific	The programme is not only related to subject specific learning.	6
Prior knowledge of the Programme	Preconceived information teachers had about the ILP.	6
Theory and Research	The theory and research behind the programme.	18
Change in the Practice and Beliefs		
Challenges of the Change	The challenges teachers experienced in implementing new practices.	47
Experiences of using strategies	The experience teachers had of implementing new practices.	40
Perception of students experiences	The teacher's perception about how the student feels about the new instructional practice.	32

Appendix 3. Phase 2 Refining and Defining Themes

Code	Description	Sources
School Contexts and Cultures	The school based factors that support teachers implementing new practices.	
Agency	Evidence of participants adopting the new instructional practices to suit their own context, use of autonomy in implementing new practices.	28
Collaboration PLCs	Sharing of the instructional practices in a formal capacity in school through Teaching and Learning Clubs, TeachMeets, Cosán Workshop and Croke Park time.	7 39
Diffusion	Sharing of a new instructional practice with other teachers in school.	39
Peer Coaching	Two or more colleagues working together to share practices, reflect on practices, share ideas and resources.	33
Working with Colleagues Leadership	The experiences of working with colleagues in implementing strategies.	18
School Leadership		
Change in the Practice and Beliefs	How the School Leadership supported teachers engagement in the programme.	47
Challenges of the Change		
Experiences of using strategies	The challenges teachers experienced in implementing new practices.	40
Perception of students experiences		32
Hinder Change	The experience teachers had of implementing new practices.	
		7

Time	The teacher's perception about how the student feels about the new instructional practice. Time dedicated to implementing new instructional practices in school.	
Emotional Responses		
Emotions	The feelings teachers experience while engaged in the programme and implementing new practice.	40
Confidence Efficacy	Improvement in teachers confidence in implementing new instructional practices.	20
<u>Identity</u>	The beliefs, values and commitment an individual views for being a teacher.	13 6
Past Experience	Positive and negative events that impact upon a teachers practice.	
Reflections		4
	How teachers reflected on implementing new practices.	
Design of the Programme		
Design of the Programme	The layout of the programme	12
Comparison to other CPD	How the ILP compares to other professional learning programmes and initiatives.	6
Learner Outcomes	The new instructional tactic, skills, concepts and strategies the teacher learned on the programme.	12
No Subject Specific	The programme is not only related to subject specific learning.	6
Prior knowledge of the Programme	Preconceived information teachers had about the ILP.	6
Theory and Research	The theory and research behind the programme.	18

Appendix 4. Phase 2 Defining and Naming Themes

Themes	Description
1 Factors surrounding context that support or hinder change	The school based factors that support the implementation of new instructional practices.
1.1 Teacher Agency	Teachers autonomy in using the new practices and refining them to suit their context
1.2 Collaboration	The teachers working together to implement the practices. The diffusion of the practices to other staff.
1.3 Engagement and support of leadership during the process	How the School Leadership supported teachers engagement in the programme.
1.4 Changes in practices and beliefs	Changes in teachers practices and beliefs from the programme.
1.5 Factors that hinder change	Factors that negatively impacted on implementing instructional practices.
Time	Limited time for planning, collaboration
Teachers perceptions of Students experience	How teachers perceived how students felt about the new practices.
2 Design of the programme involving the presentation of theory and demonstration	How the design of the programme supports or hinders teachers implements new practices.
3 Teachers Emotional Responses to Change 3.1 Teacher Identity	How the change impacted on professional identity.

Appendix 5. Phase 5 Initial Codes

Code	Sources
Working with colleagues	6
Talking to teachers in other schools	5
Sharing of ideas and resources	3
Looking for new ideas or ways of improving practice	6
Observing classes	5
Attending Teaching and Learning Clubs, workshops etc	5
Informal conservation at IL	4

Appendix 6. Phase 5 Defining and Naming Themes

Themes	Description	Sources
Social Value.	The sharing of resources, ideas and practices.	22
Collaboration	Teachers working together	29

Appendix 7. Stages of Concern Questionnaire

Stages of Concern Questionnaire

Name:_____

Please indicate how many years you have been teaching:

1-5	6-10	11-15	15 plus

Sex:

Male	Female

Please select one strategy from the first session of the Instructional Leadership Programme that they have implemented into your practice and base your responses on implementation experiences of that strategy.

Please circle the relevant number for each statement

0	Irrelevant
1	Not true of me now
2, 3, 4	Somewhat true of me now
5, 6, 7	Very true of me know

		Irrelevant	Not true of me now	Somewhat true of me now			Very true of me now		
		0	1	2	3	4	5	6	7
1	I am concerned about students' attitude toward the new instructional strategy	0	1	2	3	4	5	6	7
2	I now know of some other approaches that might work better than this instructional strategy	0	1	2	3	4	5	6	7
3	I am more concerned about another innovation	0	1	2	3	4	5	6	7
4	I am concerned about not having enough time to organise myself each day (in relation to teaching the new strategy)	0	1	2	3	4	5	6	7
5	I would like to help other staff in school in the use of this strategy	0	1	2	3	4	5	6	7
6	I have very limited knowledge of this new strategy	0	1	2	3	4	5	6	7
7	I would like to know the effect of reorganization on my professional status	0	1	2	3	4	5	6	7
8	I am concerned about conflict between my interests and my responsibilities	0	1	2	3	4	5	6	7

9	I am concerned about revising my use of the strategy	0	1	2	3	4	5	6	7
10	I would like to develop working relationships with both my department and outside the department using this strategy	0	1	2	3	4	5	6	7
11	I am concerned about how the strategy affects students.	0	1	2	3	4	5	6	7
12	I am not concerned about the strategy at this time.	0	1	2	3	4	5	6	7
13	I would like to know who will make the decisions in the new system	0	1	2	3	4	5	6	7
14	I would like to discuss the possibility of using the strategy	0	1	2	3	4	5	6	7
15	I would like to know what resources are available if we decide to adopt the strategy	0	1	2	3	4	5	6	7
16	I am concerned about my inability to manage all that the strategy requires	0	1	2	3	4	5	6	7
17	I would like to know how my teaching or administration is supposed to change.	0	1	2	3	4	5	6	7
18	I would like to familiarize other departments or persons with the progress of this new approach	0	1	2	3	4	5	6	7
19	I am concerned about evaluating my impact on students	0	1	2	3	4	5	6	7
20	I would like to revise the	0	1	2	3	4	5	6	7

	strategy approach							
21	I am preoccupied with things other than the strategy	0	1	2	3	4	5	6	7
22	I would like to modify our use of the strategy based on the experiences of our students	0	1	2	3	4	5	6	7
23	I spend little time thinking about this strategy	0	1	2	3	4	5	6	7
24	I would like to excite my students about their part in this approach	0	1	2	3	4	5	6	7
25	I am concerned about time spent working with non-academic problems related to the innovation	0	1	2	3	4	5	6	7
26	I would like to know what the use of the innovation will require in the immediate future	0	1	2	3	4	5	6	7
27	I would like to coordinate my efforts with others to maximise the strategy effects	0	1	2	3	4	5	6	7
28	I would like to have more information on time and energy commitments required by the Strategy	0	1	2	3	4	5	6	7
29	I would like to know what other faculty are doing in this area	0	1	2	3	4	5	6	7
30	Currently, other priorities prevent me from focusing my attention on the strategy	0	1	2	3	4	5	6	7

31	I would like to determine how to supplement, enhance, or replace the strategy	0	1	2	3	4	5	6	7
32	I would like to use feedback from students to change the program.	0	1	2	3	4	5	6	7
33	I would like to know how my role will change when I am using the strategy	0	1	2	3	4	5	6	7
34	Coordination of tasks and people is taking too much of my time	0	1	2	3	4	5	6	7
35	I would like to know how the innovation is better than what we have now	0	1	2	3	4	5	6	7

Appendix 8. Interview Questions

1. How did you feel/or what experiences did you have and felt about ILP at your very first session?

2. What emotions arose at the time and consider your initial reaction to fellow participants?

3. How did you find the way the programme was structured?

4. How did you feel about making instructional changes in your classroom?

5. Was a member of the SLT team in attendance with you? How did you feel about this?

6. How did you feel first when you started to use these strategies in your teaching? What emotions did you experience?

7. What hindered or challenged the implementation of any of these strategies?

8. Did you work with any colleagues to support your implementation of this strategy? How did you find this?

9. At the start of session 3 how do you feel about implementing strategies in your teaching now?

10. Can you tell me some of your experiences both positive and negative, of using different teaching strategies?

11. How do you think the students feel about the change in practice? How does your classroom feel now compared to before?

12. How do you feel about the whole change process?

13. How do you feel about you as a professional now compared to starting the programme?

14. Have you shared these strategies with staff in your school? How do you feel about it?

15. In light of Covid-19 how has it changed your practice as a teacher? Has it impacted on student learning?

Appendix 9 Interview Questions for phase 5

- Did you learn from your colleagues and others and if so how?

- Why did you seek out other teachers to learn from?

- What did you learn from others?

Appendix 10 Modules of the Instructional Leadership Programme

Module 1: Basic Principals of Instructional Leadership

Aims

1. To deepen the insights and understandings gained by participants in Module 1.

2. To enable participants to discuss and exemplify the complex interplay of Skills, Tactics and Strategies in exploring the notion of a teacher's instructional repertoire.

3. To introduce participants to the importance of Instructional Concepts and Instructional Organisers in classroom practice.

4. To deepen participants' awareness of how knowledge of Instructional Concepts and Instructional Organisers may guide the selection and application of Skills, Tactics and Strategies in the classroom.

Learning Outcomes

1. Be able to articulate the key ideas underpinning the theory of Instructional Intelligence.
2. Be aware of the centrality of systemic change to effective implementation of these ideas in the classroom
3. Be aware of the application of the theory of Instructional Intelligence to Instructional Leadership.
4. Be able to articulate and exemplify what is meant by Skills, Tactics and Strategies.
5. Have a basic understanding of the interplay that exists between Skills, Tactics and Strategies.

Module 2: Exploring the Concepts of Instructional Leadership

Aims

1. To acquaint participants with the general principals and ideas upon which the theory of Instructional Intelligence is built.
2. To develop participants' understanding of the Notion of Instructional Leadership.
3. To Provide participants with a vocabulary or language with which they can begin to articulate aspects of their practice as teachers.
4. To introduce participants to such central pillars of the theory, and of the teachers' instructional repertoire, as Skills, Tactics, Strategies and Power.
5. To begin to explore with participants how these terms and concepts interplay with each other in the teacher's classroom practice

Learning Outcomes

1. Be able to articulate and exemplify the complex relationship that exists between Skills, Tactics and Strategies in the classroom.
2. Be able to exemplify what is meant by Instructional Concepts and Instructional Organisers.
3. Understanding the significance of Instructional Concepts and Instructional Organisers and exemplify their role in guiding instructional interventions in the classroom.

Module 3: Instructional Concepts and Instructional Skills

Aims

1. To refine participants' understanding of the specific role of Skills in classroom practice.
2. To acquaint participants with the relationship between Instructional Skills and Instructional Concepts.
3. To extend participants' conceptual awareness of what is understood by the particular skill of Framing Questions Effectively.
4. To extend participants' command of relevant vocabulary.

Learning Outcomes

1. Be able to articulate the relationship between Instructional Concepts and Instructional Skills, with specific reference to how the teacher may consciously invoke a particular concept by wisely selecting and applying a particular skill.
2. Be aware of how to frame questions effectively.
3. Be able to respond effectively to student responses.
4. Be aware of how other skills and concepts may be invoked in framing questions effectively.

Module 4: Instructional Tactics

Aims

1. To introduce participants to a range of different Instructional Tactics.
2. To allow participants to consider the effective application of Instructional Tactics in classroom practice.
3. To extend participants' awareness of the characteristics and power of Instructional Tactics in teacher's repertoire.
4. To further refine teachers' understanding of the complex interplay between Skills, Tactics and Strategies in the teacher's instructional repertoire.

Learning Outcomes

1. Be able to identify and articulate the nature of a range of Instructional Tactics and refer to relevant research.
2. Be able to articulate the value and importance of instructional tactics as appropriate interventions in classroom situations.
3. Be able to incorporate tactics appropriately in the formulation of lesson plans.
4. Have a further enhanced understanding of the interplay that exists between Skills, Tactics and Strategies.

Module 5: Instructional Organisers

Aims

1. To develop participants' awareness of the role Instructional Organisers and how they influence the teacher's wise selection of classroom interventions.
2. To develop participants' knowledge of specific examples of Instructional Organisers.
3. To further refine participants' understanding of the interplay between Instructional Organisers and Instructional Concepts, Skills, Tactics and Strategies in classroom practice.
4. To extend participants awareness of relevant research findings and conclusions.

Learning Outcomes

1. Be able to define the role of Instructional Organisers in effective teaching and learning.
2. Be able to articulate the relationship between Instructional Organisers and Instructional Concepts, Skills, Tactics and Strategies in classroom practice.
3. Be able to specify and discuss examples of Instructional Organisers, with particular reference to relevant research relating to those cited above.
4. Be able to apply their developing knowledge of Instructional Organisers to their own particular classroom circumstances and experiences.

Module 6: Lesson Design

Aims
1. To enhance participants' awareness of the power of Instructional Strategies by referring to and exemplifying the strategy of "Lesson Design" as enunciated by Madeline Hunter.
2. To demonstrate the power of "Lesson Design" as a means of effectively integrating a variety of Instructional Concepts, Skills, Tactics and Strategies in a single lesson.
3. To afford participants the opportunity to consider the practical application of key ideas and principals considered in previous modules.
4. To further enhance participants' awareness of relevant research findings and conclusions.

Learning Outcomes
1. Be able to articulate the role of "Lesson Design" as a powerful strategy in the classroom.
2. Be able to identify the seven components that constitutes the stratey and discuss the critical attributes of each.
3. Be able to deconstruct a sample lesson where the strategy of "Lesson Design" is invoked and label the various interventions.
4. Be able to stack/integrate these interventions with other strategies so as to further enhance the potential power of "Lesson Design" as a means of enabling student learning.

Module 7: Co-operative Learning

Aims
1. To acquaint participants with research findings in relation to what constitutes effective group learning.
2. To enable participants to articulate a rationale for integrating co-operative learning structures with instructional concepts already considered.
3. To critically engage with the work of the Johnson's, specifically regarding the Five Basic Elements of Effective Group Work.
4. To explore with participants a number of specified co-operative tactics that may be integrated within lesson plans.

Learning Outcomes
1. Be able to refer to relevant research conclusions about the efficacy of particular approaches to group work.
2. Be aware of how co-operative learning models may be integrated into teachers' instructional repertoires so as to enable student learning.
3. Understand the rationale for teaching students the required skills to be able to process group work effectively.
4. Apply their knowledge of the Johnsons' Five Basic Elements of Effective Group Work to the design of lesson plans.
5. Effectively integrate a range of specified co-operative tactics into their lesson plans.
6. Critically evaluate a range of sample lesson plans that invoke co-operative learning structures.

Module 8: Concept Attainment

Aims
1. To develop participants' understanding of what concepts are and how students acquire understanding of them.
2. To develop participants' awareness of what is meant by Inductive Thinking.
3. To acquaint participants with the rationale and structure underpinning the strategy of Concept Attainment.
4. To enable participants to see how this strategy may be employed to invoke Instructional Concepts such as Novelty and Motivation, and how it may be integrated with other strategies, such as models of co-operative learning, to further enable student learning.

Learning Outcomes
1. Have a deeper knowledge of concepts and how students acquire understanding of them.
2. Be able to explain what is meant by inductive thinking and apply that understanding to the formulation of inductive thinking strategies.
3. Be able to explain the three phases of Concept Attainment and how they constitute a stategy.
4. Be able to integrate the strategy of Concept Attainment with other interventions and actions in a lesson plan.
5. Be aware of how utilisation of the strategy of Concept Attainment invokes important Instructional Concepts such as Novelty and Motivation.

Module 9: Concept Formation

Aims
1. To deepen the insights and understandings gained by participants in Module 8 by exploring the notion of Inductive Thinking.
2. To acquaint participants with the rationale underpinning Hilda Taba's Inductive Thinking Strategy.
3. To develop participants' understanding of how this strategy relates to, and can be integrated with, other actions and interventions already encountered in various modules.

Learning Outcomes
1. Be able to articulate their understanding of inductive thinking as a means of developing conceptual awareness.
2. Be able to explain and apply Taba's Concept Formation from Concept Attainment.
3. Be able to distinguish Concept Formation from Concept Attainment.
4. Demonstrate how the application of Concept Formation as a strategy may be integrated with other appropriate actions and interventions.

Module 10: Mind Mapping and Concept Mapping

Aims
1. To extend further the instructional repertoire of participants by introducing them to the value of complex graphic / visual organisers as strategies for the enhancement of student learning; with specific reference to Concept Maps & Mind Maps.
2. To acquaint participants with the critical attributes of each model.
3. To acquaint participants with the work of Joseph Novak and Tony Buzan in developing these models.
4. To provide participants with models of such organisers for critical engagement.
5. To deepen participants' understanding of how these strategies may be effectively integrated with other actions and interventions.

Learning Outcomes
1. Be able to identify the critical attributes of a Mind Map and a Concept Map.
2. Be able to articulate and exemplify the differences between the two models of graphic organiser.
3. Be able to integrate each model as required in a complex lesson plan.

341

Module 11: Academic Controversy and Team Analysis

Aims
1. To extend participants' instructional repertoire with particular reference to complex co-operative learning strategies.
2. To acquaint participants with the strategy of Academic Controversy as developed by Roger and David Johnson.
3. To acquaint participants with the strategy of Team Analysis as developed by Richard Elson.
4. To develop participants' understanding of how the integration of these complex processes generates more powerful student learning experiences.
5. 5. To enable participants to articulate how these strategies are interweaved with various skills, tactics and strategies.
6. 6. To enhance participants' understanding of social theory, critical thinking and brain research as these apply to the strategies of Academic Controversy and Team Analysis.

Learning Outcomes
1. Be able to integrate the strategies of Academic Controversy and Team Analysis effectively in their classroom practice.
2. Be able to articulate the complex nature of these strategies in relation to other strategies encountered.
3. Be able to articulate the philosophical rationale for invoking these strategies in the classroom.

Module 12: Instructional Leadership and Assessment

Aims
1. To develop participants' understanding of the role of assessment in effective teaching and learning.
2. To acquaint participants with the characteristics of "Assessment for Learning" or "Formative Assessment".
3. To extend participants' repertoire of effective assessment techniques.
4. To enhance participants' understanding of the concept of learning outcomes
5. To deepen participants' awareness of how "summative assessment" may be used to improve student learning.
6. To explore with participants the notion of "assessment as Learning"
7. To explore with teachers how effective assessment may be employed to assist the process of self-evaluation and school improvement.

Learning Outcomes
1. Be able to articulate the characteristics of Assessment for Learning and how this strategy differs from summative assessment techniques.
2. Be able to apply a range of different assessment techniques.
3. Be able to modify approach to questioning with regard to assessment.
4. Be able to use assessment data / findings to enhance school improvement.
5. Be able to use assessment to encourage students to think about their own learning.

Module 13: Instructional Leadership and Classroom Management

Aims
1. To Deepen the insights and understandings gained by participants in Module 12.
2. To develop participants' understanding of effective preparation for starting the school year and managing the opening weeks of the school year.
3. To acquaint participants with the theory of "Bumps" in relation to responding to student misbehaviour.
4. To acquaint participants with relevant research.

Learning Outcomes
1. Be able to prepare effectively for engaging with students in a new school year in relation to effective classroom management.
2. Be able to articulate and exemplify the characteristics of various "Bumps" in relation to responding to student misbehaviour.
3. Understand the factors to be considered in relation to developing an effective school-wide approach to effective discipline.
4. Understand a range of innovative ideas that can be integrated into an effective instructional repertoire for dealing with issues of CM.

Module 14: School Self Evaluation and School Improvement

Aims
1. To explore with participants the process of school self-evaluation and self-review, with particular reference to the Irish context.
2. To consider with participants the potential interplay between the ILP and school self-review, especially in the area of learning and teaching.
3. To examine with participants the relationship between self-evaluation and school improvement at classroom, subject and whole school level.
4. To explore the multiple processes of data gathering, analysis & target setting
5. To consider the features of an effective school improvement plan with ref to T&L and understanding change wisdom and the process of change.

Learning Outcomes
1. Be able to identify the key features of the process of school self-evaluation.
2. Be able to identify the link between school self-evaluation and school improvement.
3. Be familiar with some research findings in relation to school self-evaluation and school improvement.
4. Be aware of different forms of data, both quantative and qualitative, and mechanisms for acquiring same.
5. Be able to use data to inform actions aimed at school improvement.
6. Be able to work towards an action plan focused on enhancing T&L to ILP

Appendix 11 Ethical Approval

MAYNOOTH UNIVERSITY RESEARCH ETHICS COMMITTEE
MAYNOOTH UNIVERSITY,
MAYNOOTH, CO. KILDARE, IRELAND

Dr Carol Barrett
Secretary to Maynooth University Research Ethics Committee

24 September 2020

Sharon Marie Coffey
School of Education
Maynooth University

Re: Application for ethical approval for a Project entitled: An investigation of the effects of a professional development programme (Instructional Leadership Programme-ILP) on teachers' concerns, behaviours and the change of classroom practices of post-primary teachers: RIS reference [SRESC-2019-2378898]

Dear Sharon,

The amendment to the above project has been evaluated under Tier 2 process, expedited review and we would like to inform you that ethical approval has been granted.

Any deviations from the project details submitted to the ethics committee will require further evaluation. This ethical approval will expire on 30/09/2021.

Kind Regards,

Dr Carol Barrett
Secretary,
Maynooth University Research Ethics Committee

C.c. Prof Carl Anders Säfström, School of Education

Reference Number
SRESC-2020-2412758

Appendix 12 INFORMATION AND CONSENT FORM FOR RESEARCH PARTICIPANTS

Information Sheet

Purpose of the Study. I am Sharon Coffey, a doctoral student in the Department of Education, Maynooth University.

As part of the requirements for doctoral degree, I am undertaking a research study` under the supervision of Prof Carl Anders Säfström.

If you are interested in taking part, please read the information sheet. This information sheet will try and answer any questions you might have about the project, but please don't hesitate to contact me if there is anything else you would like to know. If you do take part, you can withdraw at any time.

The study is an investigation of the effects of a professional development programme (Instructional Leadership Programme- ILP) on teachers' behaviours and the change of classroom practices of post-primary teachers.

What will the study involve?

The study will involve completing a questionnaire during session 2 and 3 of the Instructional Leadership Programme and a digital questionnaire in May 2020. You will be interviewed by myself during session 3 of the programme in March. Some participants may be asked to complete further interviews in June 2020.

Who has approved this study?

This study has been reviewed and received ethical approval from Maynooth University Research Ethics committee and. You may have a copy of this approval if you request it.

Why have you been asked to take part?

Your opinions will enrich the topic and provide very useful information to understand how teachers feel about changing their practices after been involved in a professional development programme.

Do you have to take part?

No, you are under no obligation whatsoever to take part in this research. However, I hope that you will agree to take part and give me some of your time to complete a short questionnaire, participate in a one-to-one interview with a researcher. It is entirely up to you to decide whether or not you would like to take part. If you decide

to do so, you will be asked to sign a consent form and given a copy and the information sheet for your own records. If you decide to take part, you are still free to withdraw at any time without giving a reason and/or to withdraw your information up until such time as the research findings are September 2020. A decision to withdraw at any time, or a decision not to take part, will not affect your relationships with the Instructional Leadership Programme.

What information will be collected?

Information detailing about how you feel about implementing new pedagogical practices into your everyday practices will be collected from you.

Will your participation in the study be kept confidential?

All interviews will be recorded onto a Dictaphone that will be password protected and placed on an a secure University cloud. The only person who will see these transcripts will be my supervisor and myself. The interviews will be transcribed and also stored on a password protected laptop.

I will analyse the data once all the interviews are complete. Any quotes used will pseudonymised when writing up my dissertation. No individual, nor the school, will be identifiable in any report from this research.

No information will be distributed to any other unauthorised individual or third party. If you so wish, the data that you provide can also be made available to you at your own discretion.

'It must be recognised that, in some circumstances, confidentiality of research data and records may be overridden by courts in the event of litigation or in the course of investigation by lawful authority. In such circumstances the University will take all reasonable steps within law to ensure that confidentiality is maintained to the greatest possible extent.'

What will happen to the information which you give?

All the information you provide will be kept at Maynooth University in such a way that it will not be possible to identify you. On completion of the research, the data will be retained on the MU server. After ten years, all data will be destroyed. Manual data will be shredded confidentially and electronic data will be reformatted or overwritten by the PI in Maynooth University.

What will happen to the results?

The research will be written up and presented as a doctoral thesis. A copy of the research findings will be made available to you upon request.

What are the possible disadvantages of taking part?

I don't envisage any negative consequences for you in taking part or It is possible that talking about your experience may cause some distress.

What if there is a problem?

At the end of the interviews, I will discuss with you how you found the experience and how you are feeling. If you experience any distress following the interview procedure you may contact ……….. You may contact my supervisor [insert name & email] if you feel the research has not been carried out as described above.

Any further queries? If you need any further information, you can contact me: Sharon Coffey……...
If you agree to take part in the study, please complete and sign the consent form overleaf.

Thank you for taking the time to read this

<div align="center">

Consent Form

</div>

I……………………………………agree to participate in Sharon Coffey's research study titled An investigation of the effects of a professional development programme (Instructional Leadership Programme- ILP) on teachers' behaviours and the change of classroom practices of post-primary teachers.

Please tick each statement below:

The purpose and nature of the study has been explained to me verbally & in writing. I've been able to ask questions, which were answered satisfactorily.

<div align="center">

☐

</div>

I am participating voluntarily.

☐

I give permission for my interview and questionnaire with Sharon Coffey to be audio-recorded]

☐

I understand that I can withdraw from the study, without repercussions, at any time, whether that is before it starts or while I am participating.

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☐

</div>

I understand that I can withdraw permission to use the data right up to September 2020.

☐

It has been explained to me how my data will be managed and that I may access it on request. ☐

I understand the limits of confidentiality as described in the information sheet ☐

I understand that my data, in an anonymous format, may be used in further research projects and any subsequent publications if I give permission below:

☐

I agree to quotation/publication of extracts from my interview ☐

I do not agree to quotation/publication of extracts from my interview ☐

I agree for my data to be used for further research projects ☐

I do not agree for my data to be used for further research projects ☐

I agree for my data, once anonymised, to be retained indefinitely in the IQDA archive ☐

Signed……………………………………. Date……………….

Participant Name in block capitals …………………………………………...

I the undersigned have taken the time to fully explain to the above participant the nature and purpose of this study in a manner that they could understand. I have explained the risks involved as well as the possible benefits. I have invited them to ask questions on any aspect of the study that concerned them.

Signed……………………………………. Date……………….

Researcher Name in block capitals …………………………………………

If during your participation in this study you feel the information and guidelines that you were given have been neglected or disregarded in any way, or if you are unhappy about the process, please contact the Secretary of the Maynooth University Ethics Committee at research.ethics@mu.ie or +353 (0)1 708 6019. Please be assured that your concerns will be dealt with in a sensitive manner.

For your information the Data Controller for this research project is Maynooth University, Maynooth, Co. Kildare. Maynooth University Data Protection officer is Ann McKeon in Humanity house, room 17, who can be contacted at ann.mckeon@mu.ie. Maynooth University Data Privacy policies can be found at https://www.maynoothuniversity.ie/data-protection.

Appendix 13 Participant's Peak and Second High Score

	Phase 1		Phase 2		Phase 4	
Participant	Peak Score	2nd High Score	Peak Score	2nd High Score	Peak Score	2nd High Score
School A						
Kate	0	5	5	0	5	1
Mia	2	1	2	5	0	6
Grace	5	1	5	1	5	1
Ava	0	5	0	1	0	1
School B						
Mairead	5	1	5	1	5	1
Sophie	5	1	5	1	5	1
Molly	5	1	5	1	5	1
School C						
Hannah	5	1	5	1	5	1
Emma	0	1	0	0	0	5
Aoife	5	1	5	0	5	1
School D						

|						
Ella	0	5	0	0	0	2
Lucy	2	1	2	1	2	1
School E						
Jack	2	1	0	0	0	3
Lily	2	1	2	1	0	3
Chloe	2	1	2	1	0	3

Appendix 14- Sample of journal and procedures followed

During the interviews I made notes in a reflective journal in an attempt to reduce bias that might occur when I was analysing the data. The notes included observational comments and notes of the interview. This provided me with the opportunity to follow up with questions during the interview. A sample of notes from one interview is 12A.

14A Sample of notes from one interview
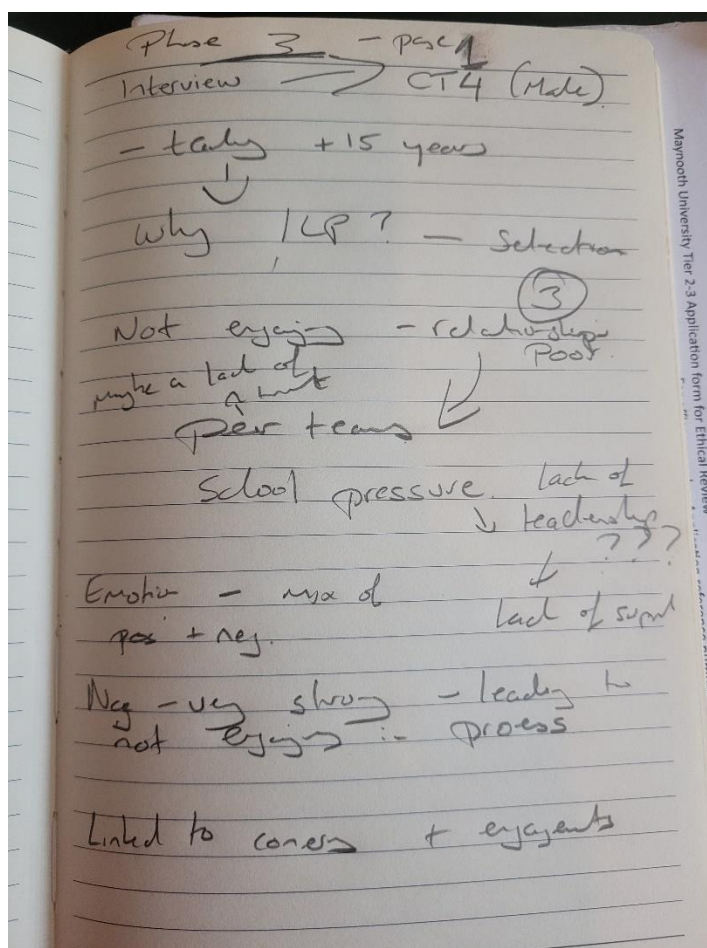
After each interview, I wrote detailed notes in my reflective journal. During this process I reflected upon my thoughts and feelings. This process provided me with an opportunity to reflect on decisions, provide deeper engagement with the data and highlight possible codes emerging from the data. As part of this process, I was able to put aside personal experiences around Leadership and as a member of the ILP Steering Committee. For example, the negative emotions the participants discussed I was able to align them with similar experience I had when I started the ILP as a teacher. This process ensured my experiences did not alter or change the process of data collection and analysis. A sample of part of the reflective journal is 12B.

14B A sample of a reflective section of journal
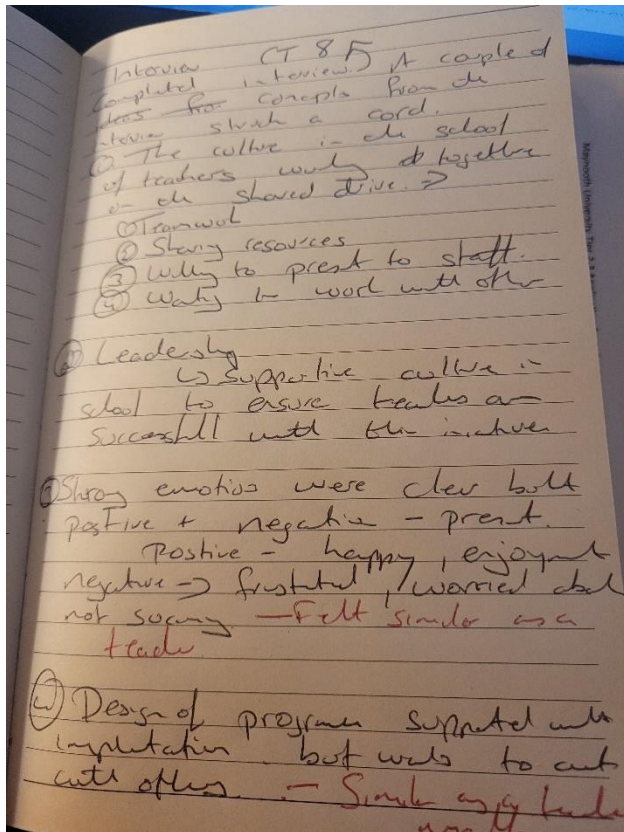
Appendix 15 Audit Trail

In this study, there was five stages of data collection and analysis. A reminder of those five stages and the phases of data analysis:

Phase 1: The SoCQ was administered to the fifteen participants at the beginning of session two of the Instructional Leadership Programme in October 2019. The questionnaires were analysed within 24 hours of collecting the data.

Phase 2: At the beginning of session three of the ILP (March 2020), the fifteen participants completed the SoCQ. The questionnaires were analysed with 24 hours of collecting the data.

Pahe 3: Semi-structured interviews were conducted with the fifteen participants between March 2020 and September 2020. The interviews were transcribed analysed using TA. I recorded in a notebook how codes were derived and how coding decisions were made. A sample of a code is presented here:
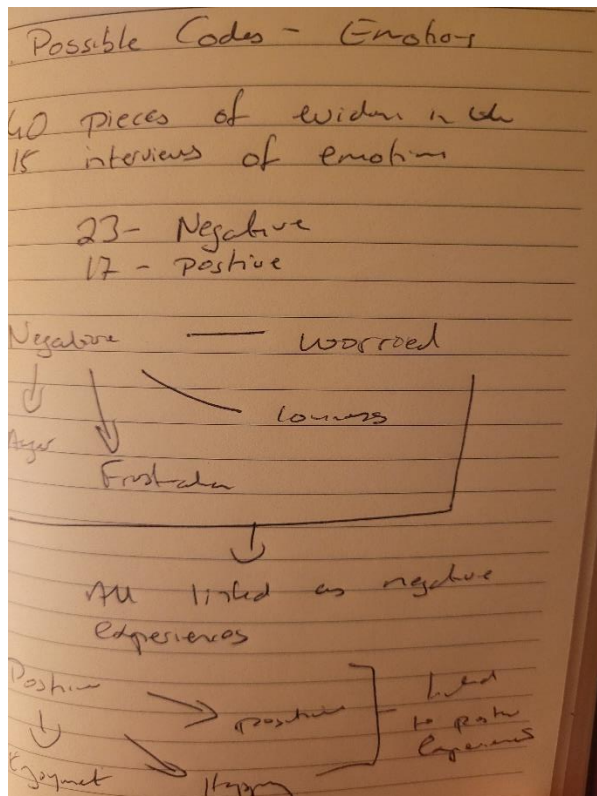
Each interview was coded in one sitting. This ranged from one to two hours. A recheck of each interview was also completed in one sitting. Once the codes were derived the same process occurred for the themes.

4.   An online SoCQ was administered to the participants in June 2020. All questionnaire were analysed within 24 hours.

5.   Six participants with a peak score Stage 5- Collaboration were interviewed to examine their perception of coordinating with others on implementing instructional practices from the ILP. The same procedure was used for deriving codes in phase 3 analysis.