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**Learning to learn in a local authority;
using a critical realist action research approach to explore the learning
organisation framework**

Anne Hodgson

A dissertation submitted to the University of Bristol in accordance with the requirements
for award of the degree of Doctor of Education (EdD) in the Faculty of Social Sciences and
Law

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ABSTRACT

The need for an education system able to thrive in the current climate of fast-paced change is widely recognised, but the tools needed to enable us to do so are not as clear. One model with increasing influence in the field of education is the learning organisation but its application has, so far, been limited in its use predominantly as a tool to measure performance and in its application to only one part of the system: schools. This research aimed to apply the learning organisation model introduced to schools in Wales to help a local authority Education Service, a Tier 2 organisation, consider how it can develop systems thinking to enable it to change and learn. Through a critical realist action research methodology colleagues from across the service were engaged in a process of collaborative reflection, with a focus on seeking to understand causal mechanisms that influence our development of learning organisation characteristics.

The research findings indicate that the learning organisation model can be used as a tool to generate reflection and, through engaging colleagues from across our Tier 2 Education Service, afforded us an opportunity to begin to develop systems thinking. Through focussing on causal mechanisms underlying processes of change, participants were able to identify affordances and barriers to our developing the characteristics of a learning organisation, which fell under six main themes: Leadership, Relationships/Ethos, Communication, Processes/Systems, Opportunities and Resources. A deeper, critical realist reflection, bringing together the research data with the theoretical frameworks of complexity and systems theory, focussed on the key concepts of emergence from non-linear connections, leadership and learning to learn. Recommendations for the Education Service emerged from the research, which included improving mechanisms for sharing information and engaging with stakeholders; developing leadership throughout the system and an ethos of leadership that supports learning; and, embedding processes and structures which support the organisation to innovate, take risks and learn from mistakes.

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And finally, to my dad, who has been asking me since I was 18 "When are you going to be a 'doctorate'?" ...now dad.

AUTHOR'S DECLARATION

I declare that the work in this dissertation was carried out in accordance with the requirements of the University's *Regulations and Code of Practice for Research Degree Programmes* and that it has not been submitted for any other academic award. Except where indicated by specific reference in the text, the work is the candidate's own work. Work done in collaboration with, or with the assistance of, others, is indicated as such. Any views expressed in the dissertation are those of the author.

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LIST OF ABBREVIATIONS

LA	Local Authority
ALNCO	Additional Learning Needs Coordinator
SLT	Senior Leadership Team
ALN	Additional Learning Needs
WG	Welsh Government
OECD	Organisation for Economic Co-operation and Development
SLO	Schools as Learning Organisations
LO	Learning Organisation
CR	Critical Realism
AR	Action Research
FG	Focus Group
GST	General System Theory
EMT	Education Management Team
OM	Operational Manager
RQ	Research Question
HE	Higher Education
PPDR	Personal Professional Development Review

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1. INTRODUCTION

1.1 Engaging with change

“Everything keeps moving and nothing stands still.”

Interpretation from the works of Heraclitus of Ephesus

Philosophers across the ages have pondered the notion of change; from whether or not change exists, what it is, how we can identify it, what causes it and how we can influence or shape it. The Oxford English Dictionary defines “change” in its use as a verb to “make or become different” and as a noun “an act or process through which something becomes different” (<https://en.oxforddictionaries.com/definition/change>). With such a wide application and interpretation, it’s understandable that change as a concept is much considered and debated. In education, change can originate from anywhere within the system; from a school, a collective of schools or the local Education Service, and it can come from outside of the Education Service, such as a driver from health, central government or children’s services (Fullan 2015; Scott et al. 2015). The management of change has been a topic area in education since around the 1950s; focussing on change in areas such as curriculum, teacher training, teaching methods, school management or school-to-school collaborative work. More recently, and almost certainly linked to the sheer pace of change in recent years, there is a growing body of research which focuses on change in education more generally (Stoll 2006; Hopkins 2009; Hargreaves and Shirley 2012; Hopkins 2013; Stringer 2013; Fullan 2015; Earley and Greany 2017; Fullan, Quinn, and McEachen 2017). It could be suggested that part of the shift has been towards the “phenomenology of change” (Fullan 2015: 24); a focus on the importance of how change is *experienced*. This research problem originates from *my* experience of change over the 13 years I have worked in a middle management post in a local authority (LA) Education Service.

When I began in my post as the team leader for an autism specialist teaching team, I thought I must have joined the LA at a particularly challenging time. There was a restructure of our service area underway and the atmosphere was somewhat tense. There seemed to be a feeling amongst many staff across the various teams of unease; a sense of trepidation about the possible changes to come and how they may impact on our ability to carry out our jobs. In one team’s room I noticed an old, dishevelled print-out up on their wall, with the following quote,

“We trained hard, but it seemed that every time we were beginning to form up into teams we would be reorganized. Presumably the plans for our employment were being changed. I was to learn later in life that, perhaps because we are so good at organizing, we tend as a nation to meet any new situation by reorganizing; and a wonderful method it can be for creating the illusion of progress while producing confusion, inefficiency and demoralization”

attributed to Petronius Arbiter

[although actually from "Merrill's Marauders: The truth about an incredible adventure" in the January 1957 issue of Harper's Magazine]

The restructure, rather than being a definitive change and start of a new structure, system or way of working, appeared to be some shuffling around of roles, some new job titles and, obviously, some cuts; a few less people to carry out the same functions, with some new responsibilities added to their roles. The process took so long and came about in such small incremental steps, that it seemed we had just about completed the process when the next restructure was announced.

Over the years since I joined the Education Service the structure has changed multiple times, as have many of its systems and processes, and its relationships with schools, other agencies and stakeholders. There have been reforms rolled-out across many areas of education, including changes to the curriculum, teacher training, teaching standards, leadership roles and qualifications, and much more. Although somewhat a cliché, change has been the only constant. However, my view of change has shifted over the years. From a time when I perceived it largely with frustration and angst, assuming that those in higher leadership positions were wasting time and resource, creating unnecessary work for all, to my current view; that the perpetual state of change within education is essential. In fact, one could go so far as to say that change is central to its function.

1.2 A systems view

“It is no exaggeration to say that dealing with change is endemic to post-modern society.”
(Fullan 1993: 14)

The global climate of fast-paced change is widely acknowledged (Fullan 1982; Hargreaves et al. 2009; Mason 2009b; Fullan 2015; Harris and Jones 2017), as is the need for education organisations to purposefully and effectively engage in change and learning (Osborne and Brown 2005; Jones and Harris 2014; Kuipers et al. 2014; Hargreaves and Ainscow 2015; Harris and Jones 2017). My role within what is recognised as a Tier 2 organisation in the Welsh education system, has enabled me to work across many parts of the wider system; with and alongside individual pupils, classroom teachers, Additional Learning Needs Coordinators (ALNCO), senior leadership teams (SLTs), schools, neighbourhood clusters, LA officers, regional consortia and central government. These experiences have led me to become increasingly interested in the concept of the education *system* and the Education Service’s role within whole-system collaboration and engagement with change. In a previous research assignment for this EdD I considered why a particular change project in our LA had not succeeded as well as we would have liked and I began to be interested in the role of leadership within change. Bringing together my developing interest in the education *system* and leadership for change, I began to explore leadership models which acknowledge the importance of a collaborative approach to leading for change; this included distributed leadership (Harris 2008), sustainable leadership (Hargreaves and Fink 2006) system

leadership (Fullan 2005a) and leading from the middle (Hargreaves and Ainscow 2015). Underlying all of these frameworks is the belief that there are ideas, skills and knowledge amongst education professionals that can be accessed and built upon through bringing them together to share expertise and develop practice across the whole system; key concepts of systems theory.

Systems theory perspectives have had an increasing influence in the field of education over the last decade (Barber and Fullan 2005a; Fullan 2005a; Hopkins and Higham 2007; Hopkins 2010; Mackay and Bertani 2015; Senge 2015). Language influenced by systems theory can be seen woven into various policy documents in Wales, with an increasing focus on the notion of 'the system', 'system leadership' and a 'systems view' (Government 2008; Government 2015, 2017a). Its influence is also evident in key models and approaches such as the self-improving schools framework (Hargreaves 2011), professional learning communities approach (Harris and Jones 2010) and Fullan's (2005a) system leadership model. System leadership as a leadership framework for reform in education, resonates with me and my key areas of focus; leading for change and the importance of leadership at all levels of the system fostering collaboration (Hopkins and Higham 2007; Coleman 2011; Bush and Glover 2014). Prior to this research I had begun to raise the notion of systems leadership within my organisation and attempt to develop approaches to change projects shaped by its theoretical frameworks. However, 'change projects' became somewhat of a misnomer as the number and scale of reforms continued to increase and engaging with change became the day job.

Over the last 4 years our service area has been focussed on the pending overhaul of the Additional Learning Needs (ALN) policy and legislation, and exploring how we can foster system-wide engagement with those changes. However, it has been the developments arising from the Welsh curriculum reform that are shaping the national discourse around collaborative, whole-system change and leadership for change. In 2017 the Welsh Government (WG), in collaboration with the OECD, introduced the "*Schools as Learning Organisations*" (SLOs) model to schools across Wales, with the aim of shifting professional culture and empowering the system to learn and thrive (Kools and Stoll 2016a; Government 2017c; OECD 2018b). This model is, once again, shaped by systems theory and was developed alongside concepts from the world of business management (Senge 1990; Senge and Sterman 1992a; Fullan 2005a; Senge 2015). Within learning organisation (LO) research there has been much focus on defining the LO, considering what a LO looks like in practice (Burgoyne 1992; Mills and Friesen 1992; Kofman and Senge 1993; Goh 1998a) or how we can measure an organisation's success at being a LO (Marsick and Watkins 2003; Yang, Watkins, and Marsick 2004). Within the field of education specifically, the model's application has, so far, been limited to schools. The introduction of this model to schools in Wales offered an opportunity to consider its application to a LA Education Service as a means of beginning to develop systems thinking.

1.3 Purpose and approach

The purpose of this research is to consider how the LO model introduced to schools in Wales, Tier 3 of the Welsh education system, might enable us as a Tier 2 organisation to begin to develop systems thinking. Through the development of a socially engaged, critical realist (CR) action research (AR) methodology (Munn-Giddings and Winter 2001; Cassell and Johnson 2006; Ram et al. 2014) the research will engage professionals in a process of collaboration to explore barriers and affordances to our ability to develop characteristics of a LO (Danermark et al. 2002; Ram et al. 2014). Within two iterative cycles of data collection and reflection, methods will be selected aimed at enabling colleagues to engage in a process of reflection and exploration of the LO framework concepts, at both a whole-service level and an individual level, in recognition of the stratified and nested nature of reality (Danermark et al. 2002: 164). Through applying a CR AR framework the research aims to enable colleagues to co-construct an understanding of barriers and affordances and, therefore, begin to develop systems thinking in answering the following research questions,

1. Can the WG's SLO framework be adapted to engage colleagues in reflecting upon our own practice as a Tier 2 organisation?
2. What are the barriers to the organisation developing characteristics of a LO?
3. What are the affordances to the organisation developing characteristics of a LO?
4. How can we develop towards becoming a LO to improve our practice?

1.4 Rationale for the research

“In order to build the capacity for system level change, there needs to be a strong platform for professional engagement, but the real challenge is actually doing it.”

(Harris 2011: 628)

The need to better engage with change, adapt and learn as organisations is widely acknowledged within education (Osborne and Brown 2005; Hopkins 2009; Hargreaves and Ainscow 2015; Fullan, Quinn, and McEachen 2017; OECD 2018a). This research seeks to apply the LO model introduced to schools in Wales to help the LA Education Service, a Tier 2 organisation, to consider how it can develop systems thinking to enable it to change and learn. The evolution of the LO model and its application to the field of education will be explored in detail in chapter 2; examining the literature around the model, its development in the world of business and a reflection upon the adaptations of the model within the field of education (Fulmer and Keys 1998; Leithwood, Leonard, and Sharratt 1998; Watkins and Marsick 1999; Silins and Mulford 2002; Senge, Schneider, and Wallace 2014; Kools and Stoll 2016a; Harris and Jones 2018). This research aims to make a unique empirical contribution to knowledge by considering this model within the context of a Tier 2 organisation. Further, the research will bring together complexity theory and critical realism with the aim of better understanding organisational learning. Through iterative cycles of AR, the research will begin to

develop a LO model to apply to a Tier 2 organisation. The research also aims to offer a unique methodological contribution to knowledge through the development and application of a critical realist (CR) action research (AR) methodology. This is an emerging approach in the field of business and economics and sociology and, as far as I am aware, is yet to be applied in the field of education. The characteristics of this methodological approach that make it valuable in the field of education, and in its application to this particular research project, will be explored in greater detail in chapter 3.

1.5 Outline of the dissertation

Within chapter 2 I will explore complexity theory and my understanding of our organisation as a complex organisation. I examine the literature around complexity theory as it fits with systems thinking and how their key constructs have shaped a number of theoretical frameworks in the field of education, including systems leadership and the learning organisation (LO). To enable the reader to understand the change context for the research, I will present an overview of the key education reforms currently taking place in Wales. This will also set the scene for the introduction of the Schools as Learning Organisations model to the Welsh education system (Government 2017c); outlining its development, introduction and implementation thus far. I will explore the significance of this research being situated in a Tier 2 organisation in education, both in terms of the concept of the system but also in relation to this research's unique contribution to knowledge. Chapter 2 will conclude by exploring how the theoretical constructs of complexity theory align with those of critical realism (Danermark et al. 2002) and present a detailed outline of the implications of critical realism as a meta-theory for this research.

Within chapter 3 I will detail the development and application of a critical realist action research methodological framework for this research. The choice of methods will be considered, alongside a detailed account of the planning and execution of extensive and intensive cycles of data collection; including the development of a survey, ethical considerations for both cycles of data collection and the approaches taken to facilitate focus group discussions. The chapter will conclude with an overview of the treatment of the data from the two research cycles, including the descriptive statistics applied to survey data and the thematic analysis of the focus group discussions.

Chapter 4 will begin with an overview of the key findings from the research data. A detailed presentation will then be given of the findings from the survey data, the extensive data collection method, alongside an outline of how these findings would be used to shape the extensive data collection cycle; the focus groups. In presenting the data collected through the focus groups, I will begin by doing so against each of the dimensions of the LO model, followed by a detailed account of the themes arising through thematic analysis.

Through chapter 5 I will reflect more deeply on the findings from the research in relation to the key themes arising from the literature review and present answers to the research questions. The chapter will offer a detailed account of the meta-findings that have arisen from the research through bringing together through reflection the findings from the study and the key concepts arising from the complexity theory, systems theory and the LO framework literature examined in chapter 2.

Within the final chapter, chapter 6, I will present a summary of the study's key findings and recommendations from those findings for our Tier 2 organisation. A detailed reflection of the research's strengths and limitations will be offered alongside suggestions for the research's original contributions to knowledge; from both the empirical and methodological perspective. This chapter will conclude with an examination of the opportunities for further research and concluding remarks.

2. LITERATURE REVIEW

2.1 Chapter overview

In the previous chapter I was able to outline the research problem; the need for an education system able to navigate and engage with the current global climate of fast paced change. I introduced my interest in systems thinking and systems leadership for change and how it these concepts began to emerge in the Welsh education system. These elements will be considered in greater detail within this chapter, which also aims to lead the reader through the iterative process of reviewing the literature and how it shaped the research focus. As I began to consider the scope of the problem and the nature of the organisation in which it existed, the complex, interconnected nature of that system became apparent. In recognition of this complexity I believe that the process of reviewing the literature, reflecting, deepening my understanding and refining the research focus is an important part of the research itself. Within this chapter I invite the reader to accompany me on that journey. This chapter will therefore begin where I began; with an exploration of the importance of leadership for change and an introduction to systems leadership. This leads us into an overview of complexity theory and systems theory, how they underpin systems thinking and systems leadership and their impact on education policy in Wales. From here I examine the learning organisation (LO) literature, its underpinning systems theory framework and its application within the field of education. Before offering a critical reflection of the origins of the Welsh Government's adoption and adaptation of the SLO model, I outline the landscape of education reform into which it was introduced in Wales. This is followed by an exploration of critical realism (CR) as the meta-theory shaping my approach to the research and acknowledges the complexity of the organisation and the research problem. The chapter concludes with consideration for the model's potential to support the development of systems thinking across *all* parts of the education system, and what this could mean in the context of our Tier 2 Education Service.

2.2 Leadership for change

“Leadership (not “leaders”) is the key to the new revolution.”

(Fullan 2005a: xi)

As highlighted in Chapter 1, my interest in leading for change in education began through my middle management role in a LA Education Service; a role which enabled me to work across many parts of the education *system* and developed my interest in engaging with colleagues from across that system to manage change. This interest led me to focus on leadership and the role of leaders within that change process. There is a vast literature examining the relationship between leadership and change in education (Fullan 2005a; Hargreaves and Fink 2006; Egan and Marshall 2007; Harris 2008; Hopkins 2009; Hargreaves and Braun 2010; Hargreaves 2011; Bush and Glover 2014; Fullan 2015; Hargreaves and Ainscow 2015; Harris and Jones 2017), which covers elements such as the

impact of leadership on stakeholder engagement (Harris 2010; Bottery, Wright, and James 2012) and the role of leadership in creating a vision (Bush and Glover 2003; Levin and Fullan 2008; Boylan 2018). One of the key conceptual changes in leadership theory over the years has been the shift from the individual to the collective (Hargreaves and Fink 2003; Fullan 2005a). This is echoed in a review of research and models for leadership in education carried out by Gumus et al. (2018) to explore the changing trends and wider education issues which have shaped them. They identify a move from “great man theory”, which focussed on the innateness of leadership characteristics, evolving into “trait theory” focusing on how to identify key characteristics of leadership, to “behavioural theory” which emerged to counter “trait theory” and was concerned with the key leadership behaviours that led to successful organisations (Gumus et al. 2018). In what Gumus et al. (2018) term the “behavioural science era”, running from post WW2 to the 1980’s, “situational leadership theory” countered the claims of “behavioural theory”, establishing that good leadership is contingent on the context, the people involved and the leader being able to adapt to what is needed.

The leadership models discussed in most of the literature in recent years are those which have emerged during the “post-behavioural-science era” i.e. in the time period after the 1980s (Gumus et al. 2018: 28). Today many theorists and practitioners highlight that the climate of rapid change, increasing levels of autonomy and the high stakes accountability agenda for school leaders, necessitates that we do something different (Osborne and Brown 2005; Hopkins 2009; Hargreaves and Ainscow 2015; OECD 2018a). Within this climate, the leadership models which remain prominent in the literature include *managerial leadership* (Bush and Glover 2003; Gumus et al. 2018) *instructional leadership* (Bush and Glover 2003; Lee, Hallinger, and Walker 2012; Neumerski 2013) *distributed leadership* (Harris 2008; Jameson 2011; Harris, Jones, and Baba 2013; Bush 2019) *transformational leadership* (Leithwood, Jantzi, and Steinbach 1999; Bush and Glover 2003; Leithwood and Jantzi 2005; Leithwood and Jantzi 2009) *teacher leadership* (Muijs and Harris 2007; Frost 2008; Bush and Glover 2014) and *system leadership* (Barber and Fullan 2005b; Fullan 2005a; Hopkins and Higham 2007; Hopkins 2010; Senge 2015). I would suggest that all of these perspectives somehow draw attention to system and the systemic nature of leadership and leadership challenges. This echoes Gumus et al.’s (2018) review, which suggests that the shift is indicative of our changing understanding, moving the focus away from leadership as something that sits with the individual, towards a view of leadership as a collective endeavour (Gumus et al. 2018).

2.2.1 System Leadership

My first steer towards the concept of system leadership came from the Welsh Government’s (WG) *School Effectiveness Framework: Building effective learning communities together (DCELLS 2008)*. Within this document the WG outlined “systems thinking” as something which exists in “leaders at all levels” who recognise that change necessitates “purposeful engagement” across the all levels of the system: school, local authority (LA) and WG (DCELLS 2008: 12). System thinking is a long-established theoretical framework which developed alongside concepts from the world of business

management to form system leadership (Senge 1990; Senge and Sterman 1992b; Fullan 2005a; Senge 2015). As a leadership framework for reform in education, it remains an emerging model (Hopkins and Higham 2007; Coleman 2011; Bush and Glover 2014). The theoretical constructs are developing, but I feel that there remains a lack of clarity and cohesion in terms of understanding and implementation.

In his seminal text Fullan (2005a: 43) suggested we need “system thinkers in action” for sustainable change. Fullan’s use of the term *sustainability* in the context of system reform was to imply a system that is able to engage in a continuous process of change and improvement without having a negative impact on others’ ability to do the same (Fullan 2005a; Hargreaves and Fink 2006). This is built upon by Hargreaves & Fink (2006: 24) who suggest that if we practise sustainable leadership we endeavour to “create positive benefit for others around us, now and in the future”. The embedding of this “moral purpose” across the system is suggested to be what links *sustainability* and *system leadership* (Barber and Fullan 2004: 5; 2005b).

As a leadership framework for reform in education, system leadership resonates with my key areas of interest; leading for change, the importance of leadership at all levels of the system and the importance of fostering collaboration for the benefit of the whole system (Fullan 2005a; Hopkins 2007; Hopkins and Higham 2007; Senge 2015; OECD 2018a). It presents the idea that through the collective endeavours of individuals across all parts and at all levels of a system, we can work together to produce positive change (Ghate 2014). However, I would suggest that there have been some misinterpretations and applications of the model, something recognised by Hopkins & Higham (2007). A key founder of system leadership, Michael Fullan, reserved the use of the term ‘system level’ and notion of ‘system-level leadership’ for reform at a government level (Fullan 2005a). One could interpret from this that Fullan (2005a) is suggesting system leadership occurs ‘at the top’, the state level. When discussing leadership at a school or district level Fullan (2005a) adopts the term ‘sustainable leadership’ and together with Barber they identify “*system leaders*” as

“...state level leaders—Presidents, Prime Ministers, Premiers, Ministers, Governors, State Superintendents, Director Generals, Deputy Ministers, and the like”

(Barber and Fullan 2005b: 3)

Other theorists posit system leaders as those school leaders able to demonstrate that they are invested in improvements for pupil outcomes across schools other than their own (Hopkins and Higham 2007; DCELLS 2008; Pont 2008). I suggest that it is these such interpretations and presentations of the system leadership model that have influenced policy development in Welsh education, particularly since leadership in education became a focus for critique.

Within the OECD's 2014 report on education in Wales, they highlighted that leadership development at all levels of the system was "weak, under-resourced and seemingly an afterthought to the larger reform effort" (OECD 2014: 67). In response the WG published *Leadership milestone matrix: New Deal for the Education Workforce* (Government 2015) the following year, in which they outlined potential leadership roles for class teachers, through to executive heads. This would seem like an attempt to acknowledge that leadership doesn't just sit with head teachers. However, within the same document they retained the term 'system leader' specifically to refer to experienced head teachers that have extended their role to challenge, support and monitor schools other than their own (Government 2015: 4). I feel that this discounts the importance of leadership throughout the system and the importance of the interconnected nature of education *systems*. System leadership requires us to move away from the "myth of the heroic individual leader" (Senge 2015: 28) and to think beyond collaborative work across schools. System leadership is the investment by all in improving the wider system through fostering leadership, collaboration and innovation at *all* levels of the system. I agree with Ghate et al. (2014) that the real value of system leadership is in

"...the concerted effort of many people working together at different places in the system and at different levels, rather than of single leaders acting unilaterally."

(Ghate 2014: 6)

As I engaged with this research and reflected upon the literature and my own experiences and views, I began to understand why I have been drawn to system leadership as a concept. I am drawn to the notion of system; to the concept of a complex system in which the interconnectedness of all its elements shape and are shaped by change. I am interested in a move away from a hierarchical, linear view of the system, towards a view which embraces the complexity of the system; that there are systems embedded within systems and people across the whole system have a part to play in change. Through developing my own understanding of the *systems leadership* literature and concept of *systems thinking* I found myself exploring the underpinning theoretical constructs of complexity theory and systems theory.

2.3 Complexity theory and systems thinking

Peter Senge published his seminal text *The Fifth Discipline* in 1990; a text which brought together key learning theories with systems theory to strategise how organisations can learn (Senge 1990). I will explore Senge's framework for learning organisations and its application to the world of education in much more detail in section 2.4. Here I will focus on how the work of Senge influenced the development of the system leadership model, which I suggest lies with the fifth element put forward in his 1990 model; the systems theory based 'systems thinking' (Senge 1990). Senge (1990) outlined "five learning disciplines" which he felt needed to be brought together for an organisation to learn; *personal mastery, building shared vision, team learning, mental models* and

systems thinking. He referred to *systems thinking* as the fifth of the four disciplines, and title of the publication, to illustrate his belief that it is the essential discipline; the one which fuses together all the other parts of the “ensemble” (Senge 1990: 13). Senge described systems thinking as “a discipline for seeing the wholes” a way of viewing the “interconnectedness that gives living systems their unique character” (Senge 1990: 68-69). He also highlighted that the conceptual frameworks for systems thinking predated his publication by half a century and points us towards the seminal work of Bertalanffy.

Considered one of the founders of systems theory, biologist Ludwig von Bertalanffy developed General System Theory (GST) in response to what he felt to be an overly mechanistic, reductionist approach to science. His 1949 paper *Das biologische Weltbild*, translated into English in 1952, and his 1968 publication *General system theory: foundations, development, applications*, Bertalanffy set out the central tenets to GST (Bertalanffy 1952; Bertalanffy 1968b). This included the nested nature of the part-whole relationship of systems, the interconnectedness or “interrelations” within open systems (Bertalanffy 1952; Bertalanffy 1968b: 55) and the ability for open systems to maintain a level of “imbalance” which allows them to “maintain a creative dynamism” (Mason 2009a: 187). This developing field of systems theory, alongside many other disciplines such as cybernetics, physics, chemistry and information science can be said to have yielded the “transdisciplinary” field of complexity (Davis and Sumara 2006: 3), hence there are many key contributors to the field. Mathematician Warren Weaver developed the concept of “organised complexity” with his 1948 publication of *Science and Complexity*, in which he considered organised complexity as those systems where there are “a sizeable number of factors which are interrelated into an organic whole” (Weaver 1948: 540). Prigogine, a theoretical chemist, added further to the field of complexity, in particular the concepts of self-organisation of complex systems and emergence, though his discovery of “dissipative structures” in the late 1960’s (Prigogine 1980; Prigogine and Stengers 1984).

There are many rich accounts of the history of complexity over the last 80 years, with its vast and varied interpretations and applications across many theoretical fields (Byrne 1998; Cilliers 1998; Anderson 1999; Marion 1999; Davis and Sumara 2005; Mason 2009a; Byrne and Callaghan 2014). Some of the key concepts of complexity as it pertains to complex systems include self-organisation, open nested systems, non-linear relationships, feedback loops and emergence (Cilliers 1998; Davis and Sumara 2006). Writing in 2010 and reflecting upon Bertalanffy’s GST, Hammond highlighted that referring to the work of Bertalanffy as a theory is “somewhat of a misnomer”, as the work is actually referring to “a way of thinking about” or “an approach to studying” what are known as complex systems (Hammond 2010: 104). In fact Senge had made a similar declaration, suggesting that systems thinking “is a discipline for seeing the ‘structures’ that underlie complex situations” (Senge 1990: 69). In the early stages of this research as I contemplated how I might consider change and leadership for change across the service it seemed that each element I tried to

focus on was inextricably linked to a vast web of other entities. Complexity theory and systems theory offer insights which enabled me to consider our organisation as a complex organisation; understanding that a complex system “cannot be understood as a function of its isolated components” (Kofman and Senge 1993: 13 emphasis in the original). A key premise for complexity theory and systems thinking is focus on the whole or “the primacy of the whole” (Kofman and Senge 1993: 13). Complex systems are such because they have complex non-linear relationships at all levels of the system and by breaking them down into their parts to examine you would impact on the intricate relationship between the parts (Cilliers 1998). Understanding that it is through the non-linear connections across systems that change occurs and learning takes place (Cilliers 1998; Anderson 1999; Eppel 2009b), drew me even closer to consider the connections across our organisation.

2.3.1 Non-linear connections

“...closed systems transfer and transmit, open systems transform.”

(Mason 2009a: 187)

Complex systems can be conceived as nested systems with open boundaries (Cilliers 2011), or “interpenetrating systems with causal powers running in all directions” (Byrne and Callaghan 2014: 66). Each part of the system is a complex system that sits within a wider complex system and through their non-linear interactions and interconnections, learning takes place (Cilliers 2011). It is important to acknowledge that the interpenetrating layers or nested nature of complex systems and their boundaries are not neat nor easily defined (Cilliers 2011; Hetherington 2012; Gerrits and Verweij 2013). In fact, as suggested by Davis and Sumara (2006),

“...the closer one looks at the boundary of a complex / open system, the more troublesome the issue becomes.”

(Davis and Sumara 2006: 15)

The influence of this aspect of complexity and systems theory can be seen in education literature and policy in recent years. Fullan reflected upon the work of Senge and considered the role of complexity and systems theory in developing our understanding of change in education in three publications that he would later term his *Change Forces Trilogy* (Fullan 1993, 1999, 2003). Within these publications he explored the nested and open nature of complex organisations and by his third of the publications he had developed his concept of the tri-level education system: school and community, district level and state level (Fullan 2003). This work was taken further by Barber and Fullan in 2004 and 2005 when they together their work on education reform and leadership, to focus on sustainability and systems thinking (Barber and Fullan 2004, 2005b). Although the terminology varied between publications in that first year, such as “tri-level development” (Barber and Fullan 2005b), “tri-level solution” (Fullan 2005b) and “tri-level reform” (Fullan et al. 2005) in each a model

was being presented for supporting whole system reform, not only through connections and leadership at all levels of the system, but through an awareness *of* the system. In a paper written for the British Government in 2004, Barber and Fullan reflected that without fundamental changes at all three levels and embedded systems leadership, the system as a whole would struggle to change sufficiently (Barber and Fullan 2004).

The concept of a tri-level education system, and calling for the need for a systems approach to education reform, first emerges in the Welsh policy landscape in the *School Effectiveness Framework* (SEF) in 2008 (Government 2008). This document introduced the concept of systems thinking and “tri-level reform” and highlighted that the latter was very much dependent on the former (Government 2008: 12). A small, but in my opinion significant, point to consider is the interpretation made by the WG of the tri-level systems model, which was to present a top-down, tiered model. This could be interpreted as an implication of hierarchy, which in turn may undermine the key constructs of systems thinking. Within the School Effectiveness Framework the tri-level model is presented as national policy, local authority and then schools (Government 2008: 11). By 2017 this

Tier 1	<p>Welsh Government</p> <ul style="list-style-type: none"> • Planning and policy making – through evidence-based collaboration. • Managing models of accountability within the democratic process. • Engaging with all tiers and supporting capacity-building for system improvement.
Tier 2	<p>Four regional consortia, local authorities, diocesan authorities, Estyn, Qualifications Wales, Education Workforce Council (EWC), examination boards and higher education</p> <ul style="list-style-type: none"> • Using their knowledge of schools and research to facilitate and support the sharing of best practice and collaboration to improve learner outcomes, within a self-improving school system.
Tier 3	<p>Schools</p> <ul style="list-style-type: none"> • Working together to provide the range of experiences for children, young people and professionals to enhance their learning and well-being.

Figure 1: “The Welsh Education system three-tier model” from “Education in Wales: Our national mission” (Government, 2017, p. 10)

had been developed and was being presented as the “Welsh education system three-tier model” (see Figure 1) (Government 2017a). In my view this approach by WG suggests a top-down vision of the system which, in terms of educational change, is widely recognised as an ineffective change management approach (Maddock 2002; Barton and Armstrong 2003; Hopkins 2007; Harris 2008). It is possible to have nested, non-hierarchical systems (Byrne and Callaghan 2014) and I feel that there is a difference between presenting a tri-level model of a *system*, where the focus is on the whole of the system and interconnectedness, compared to a *tiered* system; particularly when presented in such a hierarchical way.

The Education Service in which I aim to carry out this research is one part of the middle-tier of the wider education system. Reflecting upon the interconnecting layers of the Education Service they include, but are not limited to; *individual professionals*, such as the director and assistant directors of education, inclusion leader, specialist teacher team leaders, specialist teachers, inclusion officers, case work officers, education welfare officers, ALNCOs, tutors, headteachers, school governors, parents, C&YP, provisions leads; *groups or organisations* including the local authority inclusion service, specialist provisions, schools, children's services, health services, working groups, strategy groups; and policy environments, larger LA system environments, including hierarchies and

"...multiple, intersecting and non-hierarchical social systems of inequalities based on race, culture, language, class, and gender."

(Cochran-Smith 2014: 111)

Acknowledging this aspect of complex organisations, the non-linear internal and external interconnectedness, relationships and interactions are of key interest (Cilliers 2011: 5) as they underly the continuous learning necessary for system reform (Fullan 2003). Cilliers (2011) suggests that research which explores complex organisations gives careful consideration to the boundaries, but as that which *connects* systems rather than *divides* them (Cilliers 2011). This is echoed in systems thinking which recognises that

"...the system doesn't depend on what each part is doing but on how each part is interacting with the rest"

(Kofman and Senge 1993: 13)

because it is through these connections that change occurs.

2.3.2 Emergence

"Complexity theory is a theory of change, evolution, adaptation and development for survival."

(Mason 2009a: 16)

Emergence captures the nature of the complex system to behave as a whole; performing beyond any of its constituent parts alone, through a process of 'dynamic interactions' and an 'adaptive orientation' from which "...new phenomena, new properties and behaviours, emerge...new patterns are developed and old ones change" (Mason 2009b: 119). Emergence *needs* a sufficient level of complexity (Mason 2009b; Gerrits and Verweij 2013) and with such, through interactions and self-organisation, properties, behaviours and structures change. Thus, these changes and changing structures "are not linearly traceable to their roots" (Gerrits and Verweij 2013: 168), but

"...order emerges naturally because of unpredictable interaction - interaction is the vehicle by which this occurs and unpredictability is the stimulus that promotes novelty"

(Marion 1999: xii)

This lies at the heart of complexity theory; the acceptance that we cannot ever cleanly link cause and effect in complex systems. Senge (1990) describes this as part of “dynamic complexity”, where “obvious interventions do not produce expected outcomes” (Senge 1990: 365). As individuals within a complex organisation we are able to plan our own actions, but we are not able to plan those of others, nor the way in which plans and actions interplay (Eppel 2009a). Therefore, it can be suggested that “causality lies in the interplay between the participants” (Eppel 2009b: 20). Fullan (1999) contextualised emergence within his educational change theory describing it as new learning, turning tacit knowledge into explicit knowledge, through interactions within and beyond the system (Fullan 1999); thus highlighting emergence *and* the nested nature of education systems. Fullan (2003) acknowledged that this would necessitate we “trust the process of change while knowing that it is unpredictable” and called for education to engage with complexity concepts and systems thinking to develop learning systems (Fullan 2003: 21). This was a view also held by Hopkins and Higham (2007) and they stated

“...that in order to maximize the value of systems theory one not only needs to utilize a systems-thinking perspective, but also to view it within the context of a learning organization.”

(Hopkins and Higham 2007: 157)

It is this ability for a complex organisation to learn and change through interactions and connections that form the foundation of Senge’s learning organisation model (Senge 1990) and Fullan’s system leadership model (Fullan 2005a). Both theoretical frameworks harness the non-linear connectivity and ability of education systems to learn, change and transform.

As I began to consider how I could harness the non-linear connections across our education system to develop *systems thinking* (Senge 1990) the Welsh Government introduced the concept of “*Schools as Learning Organisations*” (SLO) to the policy landscape (Government 2017a). They had engaged with the OECD to develop and introduce the model as a means of supporting the education system to manage the significant raft of reforms coming through, suggesting that the model could ensure schools

“...have the capacity to adapt more quickly and explore new approaches, with a means to improving learning and outcomes for all their learners”

(Government 2017a: 12)

The introduction of this model to our schools would highlight the importance of systems thinking in education, something I was focussed on within my own part of the education system. Through my exploration of systems leadership and systems thinking, leading to systems theory and complexity, I had already encountered a great deal of literature on the Learning Organisation (LO) model. So, with the arrival of the SLO framework in Wales, I began a deeper exploration of the LO literature.

2.4 The Learning Organisation

With deep historical roots in science and systems theory, the notion of the learning organisation began to emerge in the 1980's (Garratt 1999). As highlighted in section 2.3 the publication of Senge's seminal text, *The Fifth Discipline: The Art & Practice of The Learning Organization*, propelled the LO theory forward and defined it as

"...an organization where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continuously learning to see the whole together"
(Senge 1990: 3)

Senge's LO framework holds systems thinking as a central tenet, identified as being essential and holding all of the other disciplines together "fusing them into a coherent body of theory and practice" (Senge 1990: 30). The LO research, including Senge's work, was developed within the field of business and economics in response to the rapid change being experienced by many organisations. The need for organisations to be able to learn and adapt, and do so quickly, was increasing. Writing just two years after Senge's key text, Mills and Friesen acknowledged,

"Transforming organizations in ways that favour learning, responsiveness and innovation is becoming a major aspect of corporate purpose all around the globe."
(Mills and Friesen 1992: 146)

Senge's (1990) model of the LO identified five disciplines he believed were vital components to developing organisations that can learn; systems thinking, personal mastery, mental models, building shared vision and team learning. *Systems thinking* was a call for organisations to be aware of themselves as complex systems and the interconnected nature of their system; to use the tools developed through the systems thinking frameworks to "make the full patterns clearer, and help us see how to change them effectively" (Senge 1990: 22). *Personal mastery* refers to our commitment to our own learning, to deepening and clarifying our own personal vision, as Senge suggests that the commitment and capacity for an organisation to learn "can be no greater than that of its members" (Senge 1990: 23). *Mental models* are the internal beliefs and assumptions that shape the way we view and understand the world and therefore how we respond to it (Senge 1990). In complex adaptive systems literature, this is referred to as agents with schema (Anderson 1999) who would work collaboratively to sense make, supported by *shared vision*. Senge (1990) stresses the importance of building a shared vision in its ability to unite people and inspire them to learn and achieve towards the shared goals. *Team learning* acknowledges the capacity within a complex system for the whole to exceed to sum of the parts; for collective learning to far exceed anything achievable by individuals, through the organisation's ability to self-organise, connect, develop and learn (Senge 1990). Senge's original model has been applied to many different types of organisation over the last 30 years. It has been taken and developed in ways that reflect the mental

models of individuals as well as the characteristics and conditions of different organisations; one such organisation being schools.

2.4.1 Schools as Learning Organisations

Senge's learning organisation model has had a significant influence within the field of education (Fullan 1993; Fulmer and Keys 1998; Laszlo 2012; Senge, Schneider, and Wallace 2014; Kools and Stoll 2016a). Just 5 years after its publication John O'Neil interviewed Peter Senge about the concept of schools as learning organisations (SLOs) (O'Neil 1995). Senge himself acknowledged that there is no quick fix for a school to become a LO as it necessitates an ongoing commitment to the learning process; it requires deep rooted change, in terms of processes, cultures and beliefs (Senge in O'Neil 1995). This was echoed by Harris and Jones (2018) who highlighted that for schools to become LOs it would require "collective commitment, collaborative action, associated risk-taking and deep changes" (Harris and Jones 2018: 353). Given that the LO model is constructed around complex systems and systems theory, it is hardly surprising that its development is as complex as those systems to which it applies. Kools and Stoll (2016b: 21) suggest that the variation in the ways in which Senge's model has been interpreted and applied to schools lacks clarity and therefore "diminishes its usefulness" in the operational sense. Alongside the many different interpretations of the LO framework, its influence can also be seen underpinning various professional learning constructs within education, including the learning community, professional learning communities and the learning school (Harris and Jones 2018: 351). These overlapping, interwoven theories and frameworks may have muddied the waters further in terms of pinning down what we mean by SLOs and how it can be applied (Harris and Jones 2018).

Although the literature on SLOs emerged in the 1990's (O'Neil 1995; Leithwood, Leonard, and Sharratt 1998; Silins, Zarins, and Mulford 1998) there has been a resurgence in the last few years, particularly from a policy perspective (Kools and Stoll 2016b; Seashore Louis and Lee 2016; Government 2017c; Harris and Jones 2018). Focus within the literature has moved on from defining what is meant by SLOs, to what that looks like in practice (Kools and Stoll 2016b; Harris and Jones 2018). Kools and Stoll (2016b), in a paper written for the OECD in 2016, used the work of Yang, Watkins and Marsick (2004) as a framework to explore the range of existing perspectives on SLOs. Yang, Watkins and Marsick (2004) had attempted to clarify the main perspectives in the LO literature to develop a measurement tool for LOs and suggested the perspectives fitted within 4 key typologies: "systems thinking" "learning perspective" "strategic perspective" and their own proposed "integrative perspective" (Yang, Watkins, and Marsick 2004). I have already explored the systems thinking perspective of LOs earlier in this chapter, acknowledging the origins in the work of Bertalanffy (Bertalanffy 1950, 1952, 1968a), Senge's Fifth Discipline model of the LO (Senge 1990) and the implications of a systems theory perspective. Yang, Watkins and Marsick suggest that Senge's LO model, of an adaptive, generative organisation, offers "a set of principles" that are

needed to develop a LO, but lacks a clear framework of how that would look in practice (Yang, Watkins, and Marsick 2004: 32).

The “learning perspective” explored by Yang, Watkins and Marsick (2004) are those frameworks for the LO which focus on organisational learning and the learning process at all levels within an organisation. They outline the work of Pedler, Burgoyne and Boydell (1991a) who, in the 1980’s and early 1990’s were among the first theorists to focus on learning theory in their LO model (Pedler et al. in Yang, Watkins, and Marsick 2004). Pedler et al. (1991b) identified eleven characteristics of a LO, including areas such as the culture, structures, learning opportunities and policy making processes (Pedler, Burgoyne, and Boydell 1991b). Also within this model are the learning theory concepts around error correction and learning from mistakes, including single-loop and double-loop learning (Argyris and Schön 1978 in Kools and Stoll 2016b). Within single-loop learning agents within an organisation are sensitive to changes internally and externally, identify errors and make modifications within the operational norms within the system (West 1994; Kools and Stoll 2016b). Double-loop learning refers to learning where the responses made by agents involve changing the organisational norms, questioning and modifying procedure and policies (Argyris and Schön 1978 in West 1994). A third element to this learning framework is the notion of deutero-learning, which originates from cybernetics and refers to the ability of complex systems to learn to learn; to develop the necessary systems and processes to ensure single-loop and double-loop learning is taking place (West 1994; Kools and Stoll 2016b). Yang, Watkins and Marsick (2004) acknowledged that this model was comprehensive, but felt that many of the eleven areas overlapped and as such it did not offer a succinct, measurable model for practice. However, I think this conceptualisation of the LO model is of significant importance when we are considering frameworks for supporting an organisation to become a LO, as what we are essentially asking them to do is learn to learn.

The “strategic perspective” explored by Yang, Watkins and Marsick (2004: 32-33) pulls together the LO theories which focus on the “internal drivers” and management strategies needed to enable learning to take place. They explore the work of Garvin (1993) who offered the following definition of the LO as,

“...an organization skilled at creating, acquiring, and transferring knowledge, and at modifying its behavior to reflect new knowledge and insights.”

(Garvin 1993: 80)

Garvin (1993) suggested five key activities necessary to enable a company to develop into a LO: *solving problems systematically, experimenting with new approaches to work, learning from past experience, learning from other companies and from customers, and transferring knowledge throughout your organization.* Goh (1998b) built upon the work of Garvin and identified 5 “interdependent and mutually supportive...strategic building blocks”: *mission and vision, leadership,*

experimentation, transfer of knowledge and teamwork and cooperation (Goh 1998b: 16). Although the model offers practical guidance for becoming a LO, it is suggested that it focuses on the macro and misses strands of learning intrinsic to a LO, such as individual learning (Yang, Watkins, and Marsick 2004; Kools and Stoll 2016b).

Yang, Watkins and Marsick (2004) reflect upon the work of Watkins and Marsick (1993, 1996; 1999) and bring together key concepts from each of the three main interpretations of LO model outlined above and offer an “integrative perspective”. This model outlines seven “action imperatives” or “dimensions” which they suggest relate to three “levels of interrelated learning” (Watkins and Marsick 1999: 80-81). *Individual learning* refers to meaning making, how people experience things and opportunities for personal development (Watkins and Marsick 1999). *Team Learning* is concerned with collaborations, learning together, collectively creating knowledge and capacity to take action (Watkins and Marsick 1999). *Organisational learning* focuses on the capacity of the system to learn shared mental models, shared vision alongside procedures and systems to facilitate learning (Watkins and Marsick 1999). Watkins and Marsick applied their model to schools and presented their seven dimensions of a LO as

- “1. *Create continuous learning opportunities.*
2. *Promote inquiry and dialogue.*
3. *Encourage collaboration and team learning.*
4. *Create systems to capture and share learning.*
5. *Empower people toward a collective vision.*
6. *Connect the organization to its environment.*
7. *Provide strategic leadership for learning.”*

(Watkins and Marsick 1999: 81)

Despite the range of interpretations and applications of the LO and SLO frameworks, there are some common key concepts which link very clearly to my research interest; the importance of collaborative engagement throughout the organisation, leadership and a systemic approach which supports whole system learning. Having been introduced to schools across Wales, I considered that the Welsh Government model SLO may provide the platform for supporting my own organisation to develop systems thinking and systems leadership. The Welsh Government SLO model had been developed with the OECD, who had been influenced heavily by the model outlined above from Watkins and Marsick (1999) through the research of OECD researchers Kools and Stoll (Kools and Stoll 2016b). I wanted to understand more about how this model had come about.

2.4.2 The OECD SLO model development

Kools and Stoll’s working paper for the OECD provides a thorough examination of the LO and SLOs literature, including a useful table which compares key overlapping themes (Kools and Stoll 2016b: 22-23). Having synthesised the evidence they identified that

“...the SLO literature strongly emphasises the importance of individual, group and organisational learning with inquiry, problem solving and experimentation as key drivers of change and innovation in education”

(Kools and Stoll 2016a: 24)

From their exploration of the research they developed an “integrated model of the school as learning organisation” with the aim of providing a clear concept for schools to support them in operationalising the SLO model (Kools and Stoll 2016b: 61). Their seven dimension model is very closely aligned with the Watkins and Marsick’s (1999) seven dimension model (Kools and Stoll 2016b: 61-63). Kools and Stoll (2016b) acknowledged that although there was a growing consensus for SLOs, there was limited research in this area and a significant lack of empirical evidence as to its impact. They suggested that if evidence existed that being a learning organisation led to better outcomes for learners, it would have significant policy implications internationally (Kools and Stoll 2016b). Later that same year the OECD published *What makes a school a learning organisation? A guide for policy makers, school leaders and teachers* and, although it made a small mention of the lack of evidence for the model, they none-the-less called for countries to work with them to implement their SLO framework (OECD 2016). They offered support and prestige to countries willing to engage with the work, including capacity building, a review report to capture progress made towards SLO, international networking opportunities and “international exposure” and “recognition” (OECD 2016: 13). The OECD also offered “evidence and support for countries’ wider education reform programmes” (OECD 2016: 13) and given the scale of reforms in education in Wales at this time, this likely appealed to the WG.

The following year the WG published their *Schools in Wales as Learning Organisations* framework (Government 2017c). This may have been the WG being innovative and recognising the potential for the SLO in supporting the reforms, but I can’t help but feel that perhaps they were being easily steered by the Global Education Reform Movement agenda, something they had been accused of in the past (Sahlberg 2014; Tröhler 2015; Egan 2017; Connolly et al. 2018). Shaping education policy around an emerging model, one that has been acknowledged as lacking a sound evidence base, during a time of major reform may be quite a risk. To understand the landscape into which this model was being introduced, we must explore the reforms in education in Wales, alongside the increasing influence of global reforms.

2.5 The Welsh reform context

Reforms in education in Wales reflect the complexity of the system. Education is complex. Learning is complex. People are complex. Change is one of the few things guaranteed. It is not possible to deeply examine the many factors shaping the education context for our LA within the

confines of this dissertation; elements such as the political history, the demographic context of the country and our particular local area, the political landscape over the years and its influence on the education system. All of these elements, and many more, shape where we are today. For the purpose of this dissertation I will outline the influence of the global agenda on Welsh education as it highlights the developing relationship between the WG and the OECD and gives a context for the introduction of the SLO model. I will then outline some of the current reforms taking place in our education system; the reforms which the WG believes we can better embrace through the implementation of the SLO model (Government 2017a).

2.5.1 Global influences

Wales joined PISA in 2006 as a country in its own right. In 2011, following Wales' poor performance in PISA 2009/2010, Leighton Andrews, the then Minister for Children, Education & Lifelong Learning, announced the first raft of reforms aimed at improving Wales' future PISA performance. These included reforms to teacher training, reintroducing national testing, introducing a school banding system, increasing levels of challenge to schools and taking the role of school improvement away from local authorities (Andrews 2011). This was quickly translated into the Welsh Government's 2012 *Improving Schools* document, in which Leighton Andrews described the 2010 PISA results as

"...a wake-up call to an education system in Wales that had become complacent, falling short of being consistently good and not delivering the outcomes our learners deserved."
(Government 2012: 2)

In 2012-2013 Leighton Andrews also called for LA commitment to delegate 85% of all school funding to schools by 2015. This 'aspirational' target set by the Education Minister was another step towards the capitalist, market driven values moulding education in England (Egan 2017). Schools were faced with increased financial control and increased responsibility, with the option of sourcing services from outside of the public sector. The marketisation of LAs, engendering competition and choice has also led to a focus on cost, controlling costs and generating revenue (Osborne and Brown 2005). These reforms were still in the throws of implementation in December 2012 when Leighton Andrews commissioned the OECD to carry out a "review of the quality and equity of education in Wales" (Evans 2014).

In their 2014 report, *Improving Schools in Wales: an OECD perspective* (OECD 2014), the OECD outlined some clear messages for education in Wales and elicited some strong responses (Jones 2014; Evans 2014; Lewis 2014). Evans (2014) suggested the report was "damning" as it highlighted the WG's lack of long-term vision for education and the "reform fatigue" being experienced by practitioners. However, reinforcing the need to embrace the OECD's findings, Evans (2014) quoted Huw Lewis, the then Minister for Education and Skills, as saying, "It's important if you want to be the best you learn from the best" (Evans 2014). It could be suggested

that Wales had, by this point, fully bought into the Global Economic Reform Movement, as perpetuated by the “messiahs” of education; the OECD (Tröhler 2015). The influence of PISA was woven throughout the system in 2014. Huw Lewis, who had taken up the post of Minister for Education and Skills during the OECD’s review in 2013, presented a paper to cabinet openly acknowledging that they intended to shape the curriculum to align with the PISA tests, stating

“The content of the GCSEs requires a major shift in teaching methods to ensure learners are able to demonstrate PISA-type skills.”

(Lewis 2014: 3)

Qualified for Life: An education improvement plan for 3 to 19-year-olds in Wales (2014) was published in the same year as the OECD review as a follow-up to the WG’s (2012) *Improving Schools* policy document. The document also placed key importance on being able to contribute to “an excellent professional workforce” and therefore “a stronger economy” (Government 2014: 8) and suggested that

“Ultimately our success will be measured by the attainment of our learners relative to that of learners in other countries as measured by PISA. These are the skills for life that our children need for their success and that Wales needs to compete with other nations.”

(Government 2014: 25)

Further credence was given to PISA that same year by Ann Keane, the then Chief Inspector for Estyn, at a conference entitled *Embedding PISA Skills in Welsh Education*, where she stated that “PISA tests the skills that a good education should deliver” (Keanne 2014: 1).

Since the PISA inspired policy u-turn of 2011, reforms in Wales have focussed upon many aspects of education including teacher training, teaching standards, leadership training, leadership standards, curriculum, learning assessment, school assessment, Additional Learning Needs (ALN) and governance. The OECD’s suggestion in 2014 (2014: 34) that professionals in education were suffering from “reform fatigue” as a result of the sheer volume of policies and reforms, including those set out in the *Improving Schools* document (Government 2012), did little to stem the flow.

2.5.2 Current reforms

The OECD report in 2014 had called for the WG to pursue developing system leadership in Wales as a “prime driver for reform”; suggesting that if Welsh education can cultivate system leadership across the system “school improvement can be led from within Wales by schools, local authorities and regional consortia” (OECD 2014: 8). *Qualified for Life* (Government 2014), published in the same year, outlined an education plan under four strategic objectives: workforce development and the importance of pedagogy, the curriculum, qualifications, and leadership at all levels of the system. In 2014 the WG also announced their intentions to embark on a major curriculum reform and commissioned Professor Graham Donaldson to develop a new curriculum for Wales, to ensure

that our learners are “able to think, do, prosper, and adapt” (Government 2014: 17). The following year *Successful Futures* was published, an extensive report which would become known Wales-wide as *The Donaldson Report* (Donaldson 2015).

Within this report Donaldson highlighted that there was a “strong appetite for radical changes” across education in Wales and a desire for a curriculum which could enable children and young people to “thrive and be successful in a rapidly changing world” (Donaldson 2015: 105). Central to the proposed new curriculum are four core purposes

“...that children and young people develop as:

- › *ambitious, capable learners, ready to learn throughout their lives*
- › *enterprising, creative contributors, ready to play a full part in life and work*
- › *ethical, informed citizens of Wales and the world*
- › *healthy, confident individuals, ready to lead fulfilling lives as valued members of society.*”

(Donaldson 2015: 29)

The 68 recommendations put forward by Donaldson covered curriculum breadth and progression, the Welsh language, achievement outcomes, choice, pedagogy, assessment, the reform process, leadership and steering, elaboration and development of Areas of Learning and Experience, teacher and leadership capacity, system capacity, national and local ownership, legislation and accountability. It’s hardly surprising, given the scope of the work needed, that the curriculum development called for systemic change; people working collaboratively throughout the system to co-construct the changes and embed them within the system (Donaldson 2015).

In 2016 the WG invited the OECD back to review the progress being made in terms of education reforms. Their report highlighted that

“The Welsh approach to school improvement has moved from a piecemeal and short-term policy orientation towards one that is guided by a longer-term vision and is characterised by a process of co-construction with key stakeholders.”

(OECD 2017: 7)

The WG followed this review with the publication in 2017 of *Education in Wales: Our National Mission* (Government 2017a), which brought together the work so far towards the implementation of Donaldson’s 68 recommendations and the OECD’s recommendations. Within this document, there was a strong emphasis on managing change and working collaboratively across the system (Government 2017a). The OECDs recommendations held a strong theme of education as a whole *system*, highlighting the need to continue co-constructing policies with stakeholders, developing research capacity throughout the system, communicating the reform journey to all and strengthening relationships (OECD 2017; Government 2017a). As a result, the WG called for “effective and honest engagement between all facets of the education system” and affirmed their

commitment to “providing the conditions” to make it happen (Government 2017a: 8). The WG raised the concept of the OECD’s SLO model for the first time within this document, listing the seven dimensions and suggesting this was the way forward to ensure schools

“...have the capacity to adapt more quickly and explore new approaches, with a means to improving learning and outcomes for all their learners”

(Government 2017a: 12)

2.6 Schools in Wales as LOs

2.6.1 Development of the model

Having committed to the SLO model as being a major vehicle to support the reforms, a “Schools as Learning Organisation Pilot Group” engaged in a number of workshops and meetings between November 2016 and July 2017 to develop the model for Wales (OECD 2018b: 2018). This pilot group involved the WG, the National Academy for Educational Leadership, pioneer schools, Regional Education Consortia and Estyn (our inspectorate), in partnership with the OECD. In November 2017 the WG published their version of the SLO model (Government 2017c), which held the four core purposes of the new curriculum for Wales at its heart, surrounded by the seven SLO dimensions (see Figure 2).



Figure 2: Schools in Wales as Learning Organisations

The language used for the seven dimensions had been tweaked slightly from the OECD model (OECD 2016) (see Figure 3). Some innocuously so, such as exchanging “students” for “learners” or changing “inquiry” to “enquiry”, but some of the changes may suggest some more purposeful reflection. Exchanging “professional learning” for “learning opportunities” may suggest an acknowledgement that *all* learning is useful learning and should be encouraged. Professional learning could be narrowly interpreted as those activities associated with one’s personal professional development, rather than being intrinsic to the whole system. “Collecting and exchanging knowledge *for* learning” rather than “knowledge *and* learning” again could be interpreted as a reflection of the iterative nature of learning and enquiry. The final change within the dimensions is the description of the “wider learning system” in place of the “larger system”. This embeds further the notion of the whole system learning together and these processes being part of the whole.

OECD SLO dimensions	WG SLO dimensions
Developing a shared vision centred on the learning of all students	Developing a shared vision centred on the learning of all learners
Creating and supporting continuous professional learning for all staff	Creating and supporting continuous learning opportunities for all staff
Promoting team learning and collaboration among all staff	Promoting team learning and collaboration among all staff
Establishing a culture of inquiry, exploration and innovation	Establishing a culture of enquiry, innovation and exploration
Embedding systems for collecting and exchanging knowledge and learning	Embedding systems for collecting and exchanging knowledge for learning
Learning with and from the external environment and larger system	Learning with and from the external environment and wider learning system
Modelling and growing learning leadership	Modelling and growing learning leadership

Figure 3: A comparison of the OECD (Kools and Stoll 2016) and WG (Government 2017b) 7 dimensions of SLO

2.6.2 The OECD review of implementation

As promised in their 2016 policy guidance document (OECD 2016), having worked with Wales to develop the SLO model and advise on its implementation, the OECD then carried out a review to identify how well schools were developing towards becoming SLOs, the capacity for change in our schools and areas for improvement (OECD 2018b). A survey had begun to be developed by the OECD in 2016 with partners from the UCL Institute of Education in England in June 2016 and following this, a panel of “international experts” in Paris in July 2017 (OECD 2018b). Whilst the SLO Pilot Group in Wales worked alongside the OECD to devise the Welsh SLO model, they had also further refined the OECD’s survey instrument to fit the Welsh context (OECD 2018b). The survey was administered online to a random sample of 571 schools across Wales in June 2018. Schools were invited by the WG and OECD to complete the online survey to assess “the extent to which school in Wales have developed as learning organisations” (OECD 2018b: 3). The key findings of a

survey to schools was published in 2018, *Developing Schools as Learning Organisations in Wales*, and identified that the “majority of schools” are progressing towards becoming a LO, but “a considerable proportion” are far from “realising this objective” (OECD 2018b: 15). The survey also identified that engagement with the 7 dimensions was uneven. Good progress had been made in the areas of “promoting team learning and collaboration” and developing systems for “collecting and exchanging knowledge and learning” (OECD 2018b: 15). However, establishing “shared vision” and “a culture of enquiry” were areas much well less developed (OECD 2018b: 15). It could be suggested that these elements are more tricky in a context where schools are having to constantly adapt to externally imposed change and the demands of high stakes assessments. The OECD also suggested that many schools could improve in terms of linking with the “external environment and larger system” (OECD 2018b: 15). One could consider that they acknowledged the models failure to promote systems thinking and that perhaps this could be linked to developing a model aimed at one part of a wider system.

The OECD noted discrepancies between the reflections gathered through the survey and those gathered through interview and secondary data, suggesting that school staff “need to be more critical about their own performance and that of their schools” (OECD 2018b: 22). Ironically, given the impact of PISA on Education policy over the last 10 years in Wales, the OECD highlighted that the culture of high stakes accountability is what is likely causing a barrier to practitioners engaging in critical reflection. Also, given that the main data being reported on by the OECD was a survey completed by school staff from less than 12% of schools across Wales, statements such as “the majority of schools in Wales...” (OECD 2018b) could be considered overgeneralised. Despite this, the WG have gone on to assure schools that there is “...a significant evidence base supporting the schools as learning organisations work over time” (Government 2018b). The WG also commissioned a joint report by Cardiff University and Cardiff Metropolitan University (Egan et al. 2018) to examine the synergy between the SLO model and *The Professional Standards for Teaching and Leadership* (Government 2017b). Their findings suggested that both approaches had potential to support the WG’s *National Approach to Professional Learning* (Government 2018a) as long as the limitations of each model were “understood, acknowledged and addressed” (Egan et al. 2018: 2). The report called for “clarity and guidance” from the WG, suggesting that the potential benefits of the approaches would depend entirely on the “interpretation and enactment” of the policies (Egan et al. 2018: 2). A lack of clarity and policy direction has been raised in the past as a feature of WG Education reform and is suggested to underly policies such as the *School Effectiveness Framework* (DCELLS 2008) not achieving the impact suggested by the research behind it (OECD 2014; Egan 2017). So it is crucial that the education system in Wales understands and engages with the SLO framework if it is to support us through the current large scale education reforms and beyond.

2.6.3 The SLO model for a whole system approach

The application of the LO theoretical framework to education appeals to my interest in education as a whole system; systemic change, leadership and collaboration. The model's theoretical underpinnings of systems theory are clear. The model acknowledges the interconnected nature of complex systems and their ability to generate learning and change through those internal and external connections (Senge 1990; Fullan 1999; Mason 2009a). It calls for agents to engage with a sense of responsibility for the system as a whole (Senge 1990; Fullan 1999, 2005a) and acknowledges that leading for change must come from across all parts of a system (Senge 1990; Fullan 2005a; Levin and Fullan 2008). Despite this underlying focus on the notion of the system, the SLO model developed by the OECD and WG focuses on just one part of that system; schools. This narrow focus on schools, whilst purporting to be supportive of whole system change and reform, identifies "supporting stakeholders" almost as after thought (seen in the outer band Figure 2). It could be suggested that this was being recognised by the OECD limitation of the model, when they called for "all schools and other parts of the system to develop into learning organisations" in their review report in 2018 (OECD 2018b: 57). In response, the WG committed to becoming a LO itself and continued to work with the OECD to adapt the model for their Tier 1 organisation. This was closely followed by the WG suggesting that other organisations at Tier 2 of the system were beginning to consider how the model might apply to their area of work (Government 2018b).

For me as a researcher this model presents an opportunity to introduce and develop systems thinking across our Tier 2 organisation and engage colleagues in a process of reflection. The application of the LO model within education has so far been largely focussed on establishing a framework for what a LO looks like; a tool with which organisations can measure their success as a LO (Fullan 1993; Silins, Zarins, and Mulford 1998; Watkins and Marsick 1999; Silins and Mulford 2002; Kools and Stoll 2016b). In fact this was Yang, Watkins and Marsick's key critique of Senge's 1990 model; that it was overly focussed on the *principles* of a LO, rather than the "observable characteristics of such organisations" (Yang, Watkins, and Marsick 2004: 32). However, it could be suggested that both Garratt (1999) and Senge (Senge in Fulmer and Keys 1998) had intended for the LO concept to be allowed to exist within a framework of continuous and organic learning, that could evolve as a framework and "be generative in the world" (Senge in Fulmer and Keys 1998: 35); a model that is "more an aspiration for a continuous process rather than a single product" (Garratt 1999: 206).

With my developing understanding of complexity theory and systems theory, I am not interested in simply repeating the OECD's survey within my own organisation as the findings would be significantly limited; offering a snapshot in time, representative of a small number of people's views and shaped by individual interpretation and bias. Findings from a survey would not enable us to deeply explore those factors enabling change and the development of the LO characteristics, and therefore systems thinking, within our complex organisation. Understanding the complexity of our

organisation I am also aware that it would not be possible to align any emerging change in a linear way back to a clear causality (Cilliers 2011; Gerrits and Verweij 2013). In an exploration of my own view of ontology and epistemology to consider what it is possible to know and how I might go about knowing it I became aware of critical realism and its close alignment with the complexity theory and systems theory concepts. I will now discuss the impact of critical realism as the meta-theory underpinning this research, how it shapes my view of the research problem and that which I seek to know.

2.7 Critical realism as a conceptual framework

CR is suggested to be “a robust philosophical and applied perspective” (Cochran-Smith 2014: 108) and one of the dominant philosophies in social science over the last 30 years (Maxwell 2012). It is not possible within the limitations of this research to fully consider the vast depths of literature surrounding CR and multifaceted debates around elements such as the terminology used, whether epistemology is subordinate to ontology in CR (Fleetwood 2016), whether epistemological relativism or interpretivism best fits with the meta-theory of CR (Reed and Harvey 1992; Byrne 1998; Byrne and Callaghan 2014), or the intricate and at times subtle differences between the various versions of CR that have emerged (see Maxwell 2012). For the purpose of this research I am adopting the term critical realism (CR) as framed by Danermark et al. (2002) and rooted in the work of Philosopher Roy Bhaskar (1978, 1979). Towards the end of the 1970’s Bhaskar’s *A Realist Theory of Science* drew the philosophical debate back to the ontological question of “what properties do societies and people possess that might make them possible objects for knowledge?” (Bhaskar 1978: 13); that ontology rather than epistemology should be where we begin for any philosophy of reality.

2.7.1 Interconnecting layers of reality

Ontology is the theory of what is reality; “of what exists, and how it exists” (Clough and Nutbrown 2012: 37). The CR paradigm acknowledges the importance of human agency in meaning making but also that a reality exists beyond our observation and interpretation of it (Danermark et al. 2002: 200). CR draws connections between the natural and social world “at the level of deep causal mechanisms” (Cochran-Smith 2014: 108), and recognises reality which is a “stratified, open system of emergent entities” (Edwards, O’Mahoney, and Vincent 2014a: 6). I will explore these key terms in greater detail here and link them back to my earlier focus on complexity theory and systems theory.

A stratified or ‘depth ontology’ (Edwards, O’Mahoney, and Vincent 2014a: 9) is the commitment to reality as existing across three different domains; empirical, actual and real (Bhaskar 1978; Danermark et al. 2002). That which is observed or experienced is known as the *empirical* domain and may include sensory experiences of the world or perspectives (Danermark et al. 2002; Edwards, O’Mahoney, and Vincent 2014a; Houston 2014). The *actual* domain refers to those

events that actually occur, regardless of our experience of them (Danermark et al. 2002). The *real* domain is that which exists as “underlying relations, structures, and tendencies that have the power to cause changes in the actual realm” (Clark 2012: 168), regardless of whether or not they are producing an event (Danermark et al. 2002). It is important to acknowledge the nested nature of these domains of reality, for example the empirical should be recognised as sitting within the actual, which in turn sits within the real. Fundamental then to critical realist research is recognition that reality is more than that which we are experiencing (Maxwell 2012). Bhaskar’s assertion that reality is multiply determined (Bhaskar 1979) highlights that CR accepts epistemological relativism and as such, that multiple interpretations of reality are possible. Acknowledging that one reality does exist, but that our knowledge of that reality is shaped by our own interpretations, is to accept that our knowledge is always fallible. However, that is not to accept that all knowledge is *equally* fallible (Danermark et al. 2002; Cochran-Smith 2014).

2.7.2 Emergence

In the same way that complexity theory acknowledges emergence from non-linear connections (Marion 1999; Gerrits and Verweij 2013), CR offers that emergent entities are anything that exists, which interact causing observable or experienced events, but which cannot be “understood in isolation from their environment” as they “contain complex and unpredictable feedback loops” (Edwards, O’Mahoney, and Vincent 2014a: 6). Such entities are considered to exist within complex open systems and can be any element within a complex open system, material or immaterial, such as molecules, rules or an organisation. Through connections or interactions, new properties emerge, for example that which can be accomplished by a team, through collaboration and interaction, could not be achieved by individual members of the team. Emergent entities are therefore recognised as greater than the sum of their parts; as having ‘emergent powers’ (Danermark et al. 2002: 199) where the “properties of the collective are not reducible to the properties of the parts that constitute it” (Edwards, O’Mahoney, and Vincent 2014a: 7). This aligns with the understanding that in complex organisations the change is not linearly traceable to its roots as we cannot view elements of a complex system in isolation with impact on the whole (Kofman and Senge 1993; Cilliers 2011). CR also acknowledges entities as having *essence*, which refers to “what makes something that thing and not something else” (O’Mahoney 2012: 726). Bhasker (2008) suggests two categories of essence; ‘nominal essence’ which refers to the properties that enable a thing to be “correctly identified as one of a certain type” and ‘real essence’ referring to the “structures or constitutions” that causes a thing to “behave the way it does” (Bhaskar 2008: 279). O’Mahoney (2012) highlights the usefulness of considering the ‘real essence’ of entities as it

“...refers to their contribution to a wider system and it is this that distinguishes essences from mere ‘parts’. The real essences of money, the vote or learning are not thus to be found in the items themselves (the coin, the voting slip or the individual) but in the systems they contribute to.”

(O’Mahoney 2012: 272)

2.7.3 Causal Mechanisms

Within CR research then, understanding the stratified nature of reality and the essence of entities enables the researcher to uncover causal mechanisms; that is to consider what creates emergent entities (Danermark et al. 2002; Maxwell 2012; Gerrits and Verweij 2013; Edwards, O'Mahoney, and Vincent 2014a). In their exploration of Bhaskar's stance that "causality is real and can be researched" Gerrits and Verweij (2013: 170) summarise that the causal mechanisms (the real), create "events, processes or behaviours" (the actual) that we observe or experience (the empirical). CR research aims to explore events, to formulate "explanations of how events follow from previous events, what drives processes, or the mechanisms by which human behaviour transpires", but acknowledges that we are not able to understand causality "unambiguously or comprehensively" (Gerrits and Verweij 2013: 171).

Using CR as a conceptual framework for this research enables me to consider a complex system, with a vast number of nested systems, structures, rules, collectives and individuals. This research will seek to identify the complex and dependent causal mechanisms enabling or acting as barriers to the development of the LO characteristics, including the beliefs of those agents involved, their interpretations, and the processes and systems in which they exist. This will necessitate the participation and co-creation of ideas by agents from within the organisation and

"...because critical realism conceptualizes individuals' reasons and meanings as part of the real world, this means that beliefs, perceptions, and interpretations can be studied as underlying causal mechanisms in interaction and conjunction with other causes."

(Cochran-Smith 2014: 112)

Although when considering a complex system it is important to acknowledge that emergence is not linear, and so it is not possible to trace an element back to its causal mechanism, it is still possible to "investigate causality or the processes through which agents endeavour to initiate causal sequences" (Cochran-Smith 2014: 111-12). A CR approach will enable participants to consider the barriers and affordances to our developing LO characteristics and through this reflection offer an opportunity for participants to consider what changes may be needed to develop our practice.

2.8 Approaching the problem

Education in Wales faces significant change as major curriculum, policy and legislative reforms continue. Our schools have already begun to apply the SLO model and the Welsh Government have declared their own aspiration to become a LO, as well as calling for organisations within Tier 2 to do the same. In recognition of the education system, and our Tier 2 organisation as part of that system, as a complex organisation, we acknowledge the value of a systems thinking approach to managing change; the theoretical constructs of which underpin the SLO model for Wales. Through applying a critical realist (CR) action research (AR) framework, this research aims to take the SLO model developed for Tier 1, our schools, and apply it to a Tier 2 organisation; a local authority

Education Service. Critical realism enables us to recognise the complexity of the organisation and seek out an understanding of causality. Through an exploration of the barriers and affordances underlying our ability to develop the characteristics of a LO we can avoid the narrow application of the LO model as something against which to measure success. This seems more in keeping with the original intention of the LO model, as a framework with which we can engage in a process of changing practice and developing new ways of working to enable the system to learn (Senge in Fulmer and Keys 1998; Garratt 1999). Through a CR AR methodology the research will engage with colleagues from across a Tier 2 organisation to explore and construct an understanding of causality and seeks to answer the following research questions,

1. *Can the WG's SLO framework be adapted to engage colleagues in reflecting upon our own practice as a Tier 2 organisation?*
2. *What are the barriers to the organisation developing characteristics of a LO?*
3. *What are the affordances to the organisation developing characteristics of a LO?*
4. *How can we develop towards becoming a LO to improve our practice?*

Through chapter 3 I will explore CR AR and outline the approach developed to answer these research questions; detailing the methods selected and the planning and the execution of two iterations of data collection.

3. METHODOLOGY

3.1 Introduction

Through chapter 2 I explored the research problem and reviewed the literature around the increasing influence of systems theory and complexity theory within the field of education. These theoretical frameworks have shaped leadership models, policy documents and change models and highlight key concepts which support an organisation to learn in the context of fast paced change. These key concepts include open systems with interpenetrating layers, non-linear connections, emergence and feedback loops. These key concepts also underpin the Schools as Learning Organisations (SLO) model recently introduced to schools in Wales. The chapter concluded with an outline of critical realism (CR) as the meta-theory for the study and a brief outline of how critical realism has shaped the way I have viewed the research problem and initial reflections about possible approaches to answering the research questions.

This chapter will begin with a deeper exploration of CR as a conceptual framework for the research and the development of a CR action research (AR) framework to enable us to consider the potential for the SLO model to foster systems thinking in a Tier 2 organisation. Through CR AR I aim to engage with colleagues to co-construct an understanding of causality for us developing as a LO and, therefore, begin to develop systems thinking through empowering colleagues to reflect on their own views, roles and the systems in which they exist. This will be explored through an iterative research process, using multiple methods to answer the following research questions,

1. *Can the WG's SLO framework be adapted to engage colleagues in reflecting upon our own practice as a Tier 2 organisation?*
2. *What are the barriers to the organisation developing characteristics of a LO?*
3. *What are the affordances to the organisation developing characteristics of a LO?*
4. *How can we develop towards becoming a LO to improve our practice?*

Within this chapter I will outline my choice of methods for two cycles of data collection for this research; the extensive data collection and intensive data collection cycles. For each iteration of the research I will outline and give reasons for the chosen data collection method, the ethical considerations and the planning and implementation of the data collection methods. The chapter will conclude with an overview of the data collected and how that data would be stored, processed and analysed.

3.2 Research Design

The design and selection of methods for this research is shaped by critical realism as the meta-theory. CR perspectives of ontology include key concepts of open systems with stratified reality and emergent properties, and CR epistemology acknowledges that reality exists independent of our

conceptions of it and that knowledge is derived from interpretation and the uncovering of causal mechanisms. As such, although CR gives the researcher concepts to enable “more accurate explanations of (social) phenomena than those which currently exist” it does not prescribe methods for doing so (Edwards, O'Mahoney, and Vincent 2014a: 13). This research sought to identify, examine and understand causal mechanisms and causal relationships that may impact on the Education Service developing characteristics of a LO. As such, methods were chosen that would enable exploration of the LO framework concepts at both a whole service level and an individual level, in recognition of the stratified and nested nature of reality (Danermark et al. 2002: 164). However, accepting that it is not possible to isolate an event from all except one causal mechanism, due to the complexity of social agents, “conceptual abstraction” was applied to isolate those aspects of reality that were the focus of the study (Danermark et al. 2002: 164). The focus for this research would be those affordance and barriers to us developing the characteristic of the LO organisation, as set out in the WG and OECD’s model. Focussing on causal mechanisms, that is what causes events, rather than the events themselves necessitates

“...interpretive tools capable of unpacking the association between what people do, and the individual or structural factors encountered in their environment that shape their behavioural responses”

(Meyer and Lunnay 2013: 2)

As this research considered social phenomena, the objects of the research would be socially produced and defined and in turn we would be socially constructing meaning. This necessitated a hermeneutic or interpretive approach (Sayer 1999: 17). The social scientist interprets phenomena and creates meaning but, unlike natural science, the participants themselves also have capacity to interpret and create meaning. Conceptualisation in social science research therefore involves a double hermeneutic and within this we must acknowledge that these interpretations are not value-neutral (Danermark et al. 2002). Within the exploration, analysis and interpretation of the data, this research would aim to ensure that the influence of the researcher’s views, experiences and potential biases are acknowledged and considered. CR research accepts that “reality has an objective existence but that our knowledge of it is conceptually mediated” (Danermark et al. 2002: 15). Acknowledging therefore that all knowledge is fallible, critical realism accepts judgmental rationality; that there are theories and methods that can inform us about reality (Danermark et al. 2002; Cochran-Smith 2014; Fleetwood 2016) and

“The task of the researcher, then, is to work out a better and causally accurate, correct, or reliable explanation for these patterns of events via the development of more adequate accounts of the powers, entities, and mechanisms which created them.”

(Edwards, O'Mahoney, and Vincent 2014a: 9)

Underpinning those explanations will be the key theories of systems theory, complexity theory and learning organisations.

The philosophical positioning of any researcher, shaped by their assumptions about reality and knowledge, determines their approach to the research problem (Grogan and Cleaver Simmons 2012; Morrison 2012; Punch 2014) and, as with all philosophical positioning, CR is not unproblematic (Cruickshank 2011; Hale, Wright, and Miller 2017). The concept of CR has evolved in many different directions over the last few decades, “offering much room for debate, dispute and elaboration” (Dean, Joseph, and Norrie 2005: 14). It is not possible to fully explore the debates surrounding the potential limitations of CR within the confines of this dissertation, but it is important to acknowledge that those debates are long established and ongoing (Bhaskar 1978; Blaikie 2007; Frauley and Pearce 2007; Scott and Bhaskar 2010). Much of that which is raised in the literature as critiques of the CR philosophy are interlinked, as its ontological perspectives so clearly shape the epistemological stance. As explored in chapter 2, the CR ontology acknowledges the existence of a single reality, that there are multiple possible interpretations of reality and that reality is stratified (Byrne 1998; Danermark et al. 2002; Blaikie 2007). This contrasts with the views of reality held by other research paradigms, for example positivists who agree that there is a single reality but believe that knowledge is derived from the empirical, or an interpretivist view that no single reality exists, but reality is constructed through the interpretations of social actors (Morrison 2012). From the position of reality as stratified, CR research seeks knowledge through the uncovering of causal phenomena at the 'deep' layer of reality and accepts the fallibility of knowledge (Byrne 1998; Blaikie 2007). Some may question the worth of research that openly acknowledges that it will not arrive at an absolute truth and, as has been suggested therefore, has “no normative, or prescriptive, power” (Cruickshank 2011: 17). However, CR holds central the importance of not only understanding the social phenomenon but changing it, through engaging agents in a process of reflection to ensure that through doing so they gain “awareness of the causal mechanisms affecting a context under investigation” (Roberts 2014: 18). The CR philosophy underpinning this study aims to enable us to engage in a new way with a model which has, thus far, had very limited impact on our complex organisation.

Yates (2004) raises the importance of educational research being 'useable' and making a contribution accessible to those in the field. The terminology and central tenets of CR can be cumbersome to anyone unfamiliar, and indeed it can take a significant amount of time immersed in the CR literature before the terms stop feeling “unfamiliar and awkward” (O’Mahoney and Vincent 2014: 19). However, as highlighted by O’Mahoney and Vincent (2014), the benefits of the terminology surrounding CR make perseverance worthwhile. The language of CR “enables a much more sophisticated representation of the natural and social worlds than that offered by other positions” (O’Mahoney and Vincent 2014: 19). This new language would enable the research to consider the LO framework from a unique perspective; co-constructing an understanding of causality with colleagues from across the Education Service. The knowledge and understanding of the stratified nature of reality, causal mechanisms and causal entities very much underpin the

approaches taken within this research and any reflections made. However, the approaches and language used throughout the data gathering process would have to be fully accessible for all participants; calling on them to consider what may be helping us to develop and what may be holding us back or stopping us from developing characteristics of a LO. Following the data gathering, all reflections and discussions would also need to be approached in an accessible way, ensuring that the reader has access to the CR reflections, alongside an interpretation of what this means in practice.

Considering causality we must accept that there are innumerable potential causal mechanisms influencing complex open systems, and given the uniqueness of circumstances surrounding any given conceptual abstraction, “realists tend not to write prescriptions for change, nor do they propose recipes for producing good social outcomes” (Ackroyd and Karlsson in Edwards, O'Mahoney, and Vincent 2014b: 37). However, there is an increasing presence of more involved or engaged approaches, through which researchers and participants are actively engaged with the research and, it is suggested, better able to attempt to shape causal mechanisms (Danermark et al. 2002; Byrne and Callaghan 2014; Ackroyd and Karlsson in Edwards, O'Mahoney, and Vincent 2014b; Ram et al. 2014). One such methodology, is that of “socially engaged” critical realist (CR) action research (AR) (Ram et al. 2014: 206).

3.2.1 Critical Realist Action Research (CR AR)

As a teacher I have a comfortable familiarity with the concept of action research. This has long since been a method viewed as being more practical and accessible to those carrying out research from the reality of working life, rather than a purely academic perspective. As such, teachers have commonly used this approach to engage in research. In recent years, acceptance of AR as a methodology is growing, particularly amongst those who acknowledge complexity in social science research and therefore the benefits of researching from within. Byrne and Callaghan (2014: 270-72) highlight that in order to consider complex systems one needs an internal view and the focus should always be on emergence and change; that by definition, they say, is action research (AR). The term AR was coined by Kurt Lewin in 1944 and traditionally was considered to involve a researcher entering the field, creating an intervention, implementing it and observing the impact. However, there is much diversity in contemporary AR praxis, shaped by differences in philosophical perspectives (Cassell and Johnson 2006). My approach to this AR fits with those contemporary practitioners of AR who consciously explore the impact of the researcher's involvement (Munn-Giddings and Winter 2001; Cassell and Johnson 2006), and this “socially engaged” approach fits well with the epistemological and ontological views of CR (Ram et al. 2014: 206). Further, contemporary AR practitioners focus on philosophical thinking “as a means of enhancing the validity and contribution of the approach” (Ram et al. 2014: 206).

Ram et al. (2014) offer an exploration of the ways in which CR and AR are not only compatible, but can be complimentary to one another and their account significantly influenced the approach taken in this research. One element put forward by Ram et al. (2014) as aligning CR and AR is that of human emancipation, something highlighted by a number of theorists (Munn-Giddings and Winter 2001; Cassell and Johnson 2006; Ackroyd and Karlsson in Edwards, O'Mahoney, and Vincent 2014a). CR enables us to “challenge existing power structures” and “expose misguided prior beliefs” through new knowledge generation (Ram et al. 2014: 205). Ram et al. (2014) suggest that AR gives critical realists a way of putting this into action, offering

“...the opportunity to ask a retroductive ‘transcendental question’: in addition to CR’s core question of ‘what must the world be like for the existing state of affairs to exist?’, ‘how can better explanation inform alternative futures?’”

(Ram et al. 2014: 205)

This critical realist AR aimed to engage with participants to consider the structures and context of the Education Service, and explore causal mechanisms behind key areas of practice identified as present in LOs. Being reflexive throughout this process would be essential. My own core values of social justice, equity and tolerance are shaped in part within an anti-authoritarian, socialist narrative. As such, my instinct is often to challenge authority and hierarchical systems, particularly wherever I feel there is an unfair power dynamic. This not only influenced my interest in the concept of systems leadership and systems thinking, but also in the concept of critical realism as a framework for challenging such structures and power relations. It would be imperative throughout the research that I take time to reflect upon my own values and beliefs and how they may be influencing my reflection and interpretation.

“CR does not engage in methodological imperialism” (Hurrell 2014: 244) and recognises the value and role of quantitative *and* qualitative methods within social science research (Byrne 1998; Danermark et al. 2002; Byrne and Callaghan 2014; Hurrell 2014; Alderson 2015). This research takes the “critical methodological pluralism” view of mixed methods approaches, as presented by Danermark et al. (2002), which highlights that CR research design and choices of methods should be governed by ontological perspectives; choices which acknowledge that social science research takes place in open systems of stratified and contingent reality with “emergent powers”; that reality has “ontological depth, and that facts are theory-laden” (Danermark et al. 2002: 150). Danermark et al. (2002) develop the work of Sayer (1992) and propose a reframing of the quantitative/qualitative debate, suggesting a more purposeful divide be that of considering “intensive” and “extensive” approaches, and advocates combination of both. In the search for causal mechanisms, intensive methods that focus on an in-depth examination of fewer cases is often needed, complimented by extensive approaches which can identify wider patterns, give an overview of populations or seek to examine the frequency of a phenomenon (Danermark et al. 2002: 166).

This CR AR would be implemented through a sequential AR design with two cycles of action and reflection (see figure 4), with the first cycle applying an extensive data collection method, followed by a second cycle of intensive data collection. The extensive cycle would use a survey across the

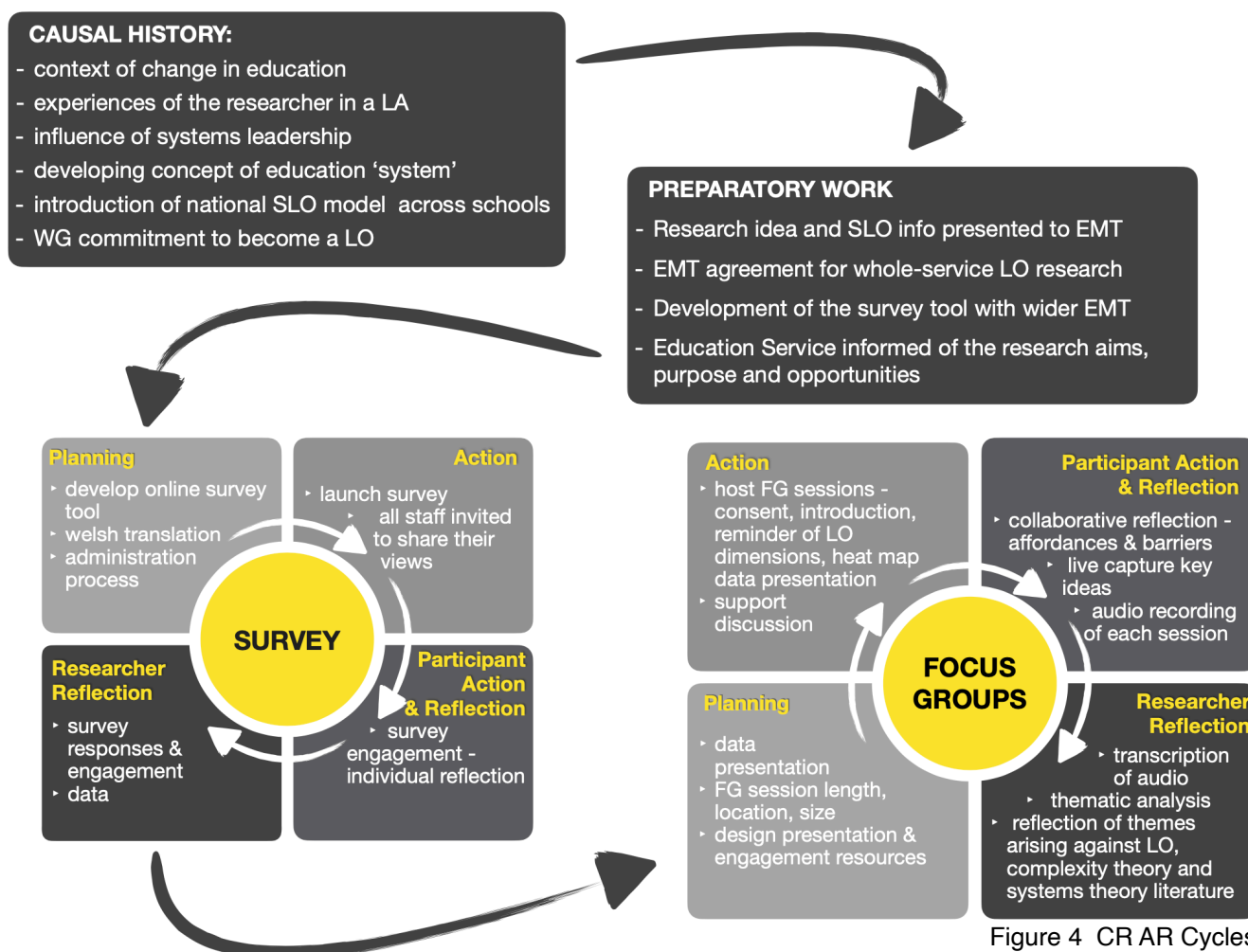


Figure 4 CR AR Cycles

whole service. Such extensive methods are not able to help us find causal explanations of events, but they can provide us with an indication of the current landscape and identify elements requiring deeper reflection in the second iteration (Danermark et al. 2002). The data gathered through the first iteration would directly shape the second cycle of the research, which would involve the use of interviews as an intensive method (Danermark et al. 2002); using a focus group approach to engage colleagues in deeper reflection and knowledge co-production.

3.3 Extensive method: the survey

Using surveys to explore and describe the opinions of respondents is a common tool within educational research (Cohen, Manion, and Morrison 2007) as is the use of preexisting survey instruments (Punch 2013). This research will adapt the existing OECD's "Schools as Learning Organisations Survey, 2017" (OECD 2018b). However this is not in order to examine the reliability or validity of the instrument, as is often the purpose of using an existing instrument (Cohen, Manion,

and Morrison 2007). Nor would the survey be used for the purpose of generality in the empiricist sense, seeking to make observations of the participants and generalise those findings (Cohen, Manion, and Morrison 2007). The use of a survey as an extensive method within this CR AR aimed to open up a dialogue and explore existing conditions as a precursor to deeper exploration (Danermark et al. 2002). What we are measuring through use of a survey in CR AR is not “preexisting and neutral” (Martí 2016: 170). Reality is stratified, socially constructed, performative and value laden (Danermark et al. 2002; Cochran-Smith 2014; Edwards, O'Mahoney, and Vincent 2014a) and, therefore, the researcher and participants are jointly producing knowledge. Applying a survey extensively across the organisation offers an opportunity for wider engagement and can help colleagues to they feel that their opinions are valued and will inform further work (Campbell, McNamara, and Gilroy 2004). This sense of ownership is something that the LO model aims to foster. Further, using the SLO survey would serve to introduce the LO concept and terminology to colleagues across the service. It was hoped that in doing so colleagues would be more willing to volunteer to participate in the second cycle of data collection, having gained some familiarity with the topic. And finally, the data generated by the survey would be used to develop a framework for discussion within the focus groups; offering colleagues an opportunity to explore and reflect upon the findings as springboard for deeper reflection.

Within their research, the OECD administered the Welsh Government (WG) SLO survey online to a sample of 571 schools across Wales. The survey, which was discussed in detail in chapter 2, was developed to identify the extent to which schools had developed these LOs and the results were published by the OECD in November 2018 (OECD 2018b). In January 2019 I met with the WG Deputy Director for Pedagogy, Leadership and Professional Learning, Dr Kevin Palmer. I was interested in his take on the range of reforms and models coming into play in Welsh Education, as I was myself trying to get a clear view of how the various models fit together and / or complimented one another. During the discussion I was made aware of the WG's commitment to becoming a LO. I had already begun examining the SLO model from the perspective of my interest in systems theory and complexity theory in relation to organisational change, so this peaked my interest. Dr Palmer was then able to put me in touch with Marco Kools from the OECD's team behind the SLO work. We discussed the SLO work, my interest in the SLO model for my Tier 2 organisation and the work being undertaken with the WG as a Tier 1 LO. Marco Kools gave permission for the SLO survey to be adapted for use within our Tier 2 organisation and shared his initial thoughts on the version they were developing for the WG, Tier 1. Following this, there were several steps taken to share the research proposal with the Education Management Team in the Education Service to gain approval to proceed from the Director of Education. These steps will be explored fully later in this chapter, within the discussion of ethical issues relating to this research. For now I shall discuss further the use of a survey as part of this research.

3.3.1 Researcher access

Researcher positionality has significant implications within social science research. Undertaking research from within the organisation in which you work, insider research, offers potential benefits as well as challenges. The 'preunderstanding' of the researcher, that is all of the "knowledge, insights and experience" that one brings to a research project (Coghlan 2007: 339) can significantly shape the research when undertaking it in your own organisation. Within the context of this research, my lived experiences within the organisation kindled my interest in the way we engage with change. My knowledge, understanding and experience of the changing policy landscape in education, and its impact on the education system, enabled me to consider this research as a relevant course of action. My existing understanding of the culture, language and processes of the organisation, already established relationships with potential participants, a lived experience of the problem and the potential to extend influence in the organisation beyond the scope of the research are all potential benefits to my 'preunderstanding' (Merriam et al. 2001; Sikes and Potts 2008; Atkins and Wallace 2012). However, it is also important to acknowledge that 'preunderstanding' can limit the researcher (Coghlan 2007: 339), in terms of being limited by our own experiences, understanding and views. It would be imperative throughout this research that I stay aware of my 'preunderstanding' and how it may be influencing my research. One example became apparent early in the planning phase; my original research proposal to senior leaders was to conduct this research within my own area of the Education Service, the Inclusion Service, rather than service-wide. Here I was limited by my experiences and knowledge of the service.

A further key consideration for insider research is the 'role duality' that occurs when one is balancing an existing role within the structure of the organisation, alongside a role as researcher (Brannick and Coghlan 2007; Coghlan 2007). Being aware of the potential role conflicts that may arise, through a process of reflexivity, would be essential (Brannick and Coghlan 2007; Coghlan 2007); whether from the perspective of managing to continue to fully deliver on my practitioner role whilst trying to carry out the research, or the potential influence of my existing knowledge and views of the organisational hierarchies, politics and existing professional relationships with colleagues. Consideration would need to be given to the potential influence of my role within the service on colleagues' perceptions of the research, the potential influence of existing relationships on participants' willingness to engage, power relations and challenges to my remaining impartial (Merriam et al. 2001; Sikes and Potts 2008; Atkins and Wallace 2012). Of key importance would be staying ethically mindful and reflexive throughout the research process (Guillemin and Gillam 2006). Maintaining notes of any challenges, concerns or conflicts as they arise would enable me to ensure that I reflect upon them and respond throughout the process.

Researcher access is often a key driver in embarking upon insider research (Atkins and Wallace 2012). However, it was important not to take for granted that I would be able to carry out this research, nor that I would have access to participants from within the service (Cohen, Manion, and

Morrison 2011). Acknowledging the duality of my role as a practitioner within the organisation and as the researcher, alongside my 'preunderstanding' of the organisation's hierarchical structure and processes (Brannick and Coghlan 2007), the first and most fundamental step would be to gain the informed consent from the Director of Education and the Education Management Team (EMT) for the research to take place. This would involve ensuring they understood the context and aims of the research, as well as the proposed data collection methods. I would be invited to make presentations at two EMT meetings (see Appendix 1: SLO presentation for EMT). Initially this would involve presenting the existing OECD school survey and outlining my interest in the systems leadership and system thinking frameworks. At a second meeting I would give a more detailed presentation and participate in a broader discussion about the application of the model to the whole service, how data would be used and any further iterations of data collection that may be needed. Once consent had been gained from the Director and wider EMT, they suggested that this research should involve the whole Education Service. My initial proposal to EMT had been to carry out the research within my own area of the service; the Inclusion Service. As previously highlighted, I was limited in terms of aspirations for the research due to my own experiences and the appeal of easier access to participants with whom I have existing relationships. However, I am grateful to the EMT for encouraging me to take on the challenge of widening the research to the whole service, not least because this is far more in-keeping with the LO model and underpinning systems theory.

With consent to proceed with the survey service-wide, access to participants was not hugely problematic. As is often the case with insider AR, I already had established relationships and connections across the service and the benefit of familiarity with the service structures. However, securing the involvement of participants is not as simple as having access to participants. It is also important that staff completing the survey do so from a place of honesty and willing engagement, and not because they feel made to do so (de Vaus 2013). As such, the survey was made accessible to all staff but participation would be voluntary and anonymous. This will be explored further in the next section.

3.3.2 Information for participants

As highlighted above, as an insider researcher I was aware of the organisation's hierarchical structure and, as such, understood that the first and most fundamental step in the process of informing participants was ensuring that the Director of Education and the EMT were able to make an informed decision concerning the service's participation in the research. Once consent was given, ensuring *all* participants were fully informed as to the purpose of the research and how any data gathered would be used was essential. Having presented to the EMT I was asked to return and present the information at an extended EMT meeting; a meeting attended by a wider number of leaders and team leaders from across the service. This was to ensure that all leaders understood the purpose of the survey going out to all staff, had an opportunity to ask questions about it and felt confident in speaking to their teams about it (see Appendix 2: Extended SLO presentation for wider

EMT). The presentation was well received and all agreed that we would circulate the survey to all staff.

To communicate the purpose of the survey and clarify key points about participation, it was agreed at an EMT meeting that an email would be sent to all staff from an Operational Manager (OM) in the service responsible for performance. This is an example of a potential role conflict that can arise within insider research. My practitioner role within the service was not at the appropriate level within the hierarchical structure for the correspondence to be sent by me. If I had been carrying out this research from outside of the organisation it is possible, perhaps even likely, that the EMT would have been happy for me to send out the information about the study. Instead I was asked to draft the email about the research (see Appendix 3: Suggested email for survey) which was then edited by an Operational Manager before being sent out to all staff (see Appendix 4: Final email for survey from OM). Within the email I had included a number of key points: the purpose of the survey for the service, that the survey would form part of doctoral research, encouraging their participation, assuring anonymity, establishing that the survey was available bilingually and giving an approximate indication of how long it would take to complete. The OM had emphasised that reflecting upon ourselves as a LO had come at an opportune time, as the service is currently developing its vision for education. To encourage staff to participate I had suggested “to enable you to participate in the development of the service going forward” which was reworded “to ensure your voice is heard in this respect as we move forward”. Further, the final email noted that survey outcomes would be shared with staff once aggregated. Much of the information was repeated in the opening of the online survey. A consent page was drawn up (see Appendix 5: Online survey [English]), which staff had to click to agree to before moving on. Again, this emphasised that responses would be anonymous and asked participants for their “honest and critical opinion” in their responses to the survey.

3.3.3 Developing the questionnaire

The OECD’s survey predominantly consisted of statements pertaining to each of the seven dimensions of the SLO model and asked respondents to give their opinion using a 5-point Likert scale. The Likert scale is a long-established approach to ascertaining opinions within social science research (Cohen, Manion, and Morrison 2007; Croasmun and Ostrom 2011; Punch 2014; Joshi et al. 2015) and begun with the work of Rensis Likert (1932). This approach to a rating scale measurement can be a useful tool when trying to ascertain opinions, allowing people a degree of differentiation of response, whilst maintaining the generation of numerical data, enabling the research to “to fuse measurement with opinion, quantity and quality” (Cohen, Manion, and Morrison 2007: 327). However, there are limitations to using Likert scales. Firstly, the intervals between the rating scale options cannot be presumed equal (Jamieson 2004; Cohen, Manion, and Morrison 2007; Joshi et al. 2015). We are not able to say that there is the same degree of difference between “neutral” and “somewhat agree” as there is between “strongly disagree” and “somewhat

disagree”. It is also not possible to infer the intensity of feelings between respondents, for example to suggest that that one person’s “strongly agree” is the same as another’s. This impacts on the way in which the data can be analysed and the conclusions that can be drawn.

There is also much debate around the scale itself, including whether it is better to retain a mid-point and therefore enable respondents to take a neutral stance, or to use an equal number and force and opinion one way or another (Cohen, Manion, and Morrison 2007; TSANG 2012; Joshi et al. 2015). The decision was taken by the EMT early in the process that this survey would be open to *all* staff across the Education Service and therefore staff from a wide range of roles and backgrounds. Given the nature of what the survey was exploring, there would almost certainly be some statements for which respondents did not have a clear opinion or understanding. As an example, there are many roles within the service where a member of staff has little or no involvement with external agencies directly, or policy development. As such, it was agreed that a neutral position would remain.

The number of scale options when using a Likert scale is also a point for consideration; a discussion largely inspired by the view that respondents tend to avoid extreme responses (Cohen, Manion, and Morrison 2007; Joshi et al. 2015). Some suggest that this can be overcome by giving respondents a wider scale, commonly a 7-point or 10-point Likert scale (Jamieson 2004; Croasmun and Ostrom 2011; Joshi et al. 2015). In adapting the OECD’s survey, we didn’t feel it appropriate to widen the number of scale options, even if it may have offered a more subtle mapping of respondents’ views. Given the number of items in the OECD’s original survey, it was felt that the design already had the potential to induce boredom or frustration among respondents. 69 statements with Likert scale responses is repetitive, and although the OECD’s survey outline to schools describe the survey as taking less than 10 minutes, that in itself is very subjective as it depends on how much time one spends considering each response. Again, this could be said to have increased the likelihood of “neutral” responses, should someone not really wish to complete the survey. However, in an attempt to counter balance this, completion of the survey was entirely voluntary and anonymous. Given that the aim of adapting the OECD’s survey was to introduce the existing model to our service, open up a dialogue and begin to explore the issues, the use of the 5-point Likert scale was not changed. However, the content of the survey in terms of the statements against which the respondents were asked their opinion, would be changed to suit the context of the Education Service.

The original “Schools as Learning Organisations Survey, 2017” (OECD 2018: 114-17) developed to fit the Welsh education context, consisted of 69 items organised under the 7 dimensions of the SLO model, labelled A-G (see Appendix 7: Welsh Government and OECD SLO Survey). As previously stated, the survey used a 5 point Likert scale and required respondents to rate their level of

agreement with each statement, from 'strongly disagree' to 'strongly agree'. During their data analysis the OECD carried out principle component and reliability analyses, and four of the survey items were found "not to fit" the Welsh SLO context and so were therefore excluded from their whole school analysis, leaving a 64 item survey. For this research project, the researcher worked with colleagues from across the Education Service, to collaboratively review each of the items on the survey and edit / develop them to better fit the LA Education Service context; both in terms of language and processes. This took place in EMT meetings, Inclusion Leaders Meetings and Team meetings between March and June 2019 (see Figure 5: Survey development timeline). I will explore some examples of the changes here, but for full details of all the changes made see Appendix 8: Developing SLO survey for Tier 2 organisation.

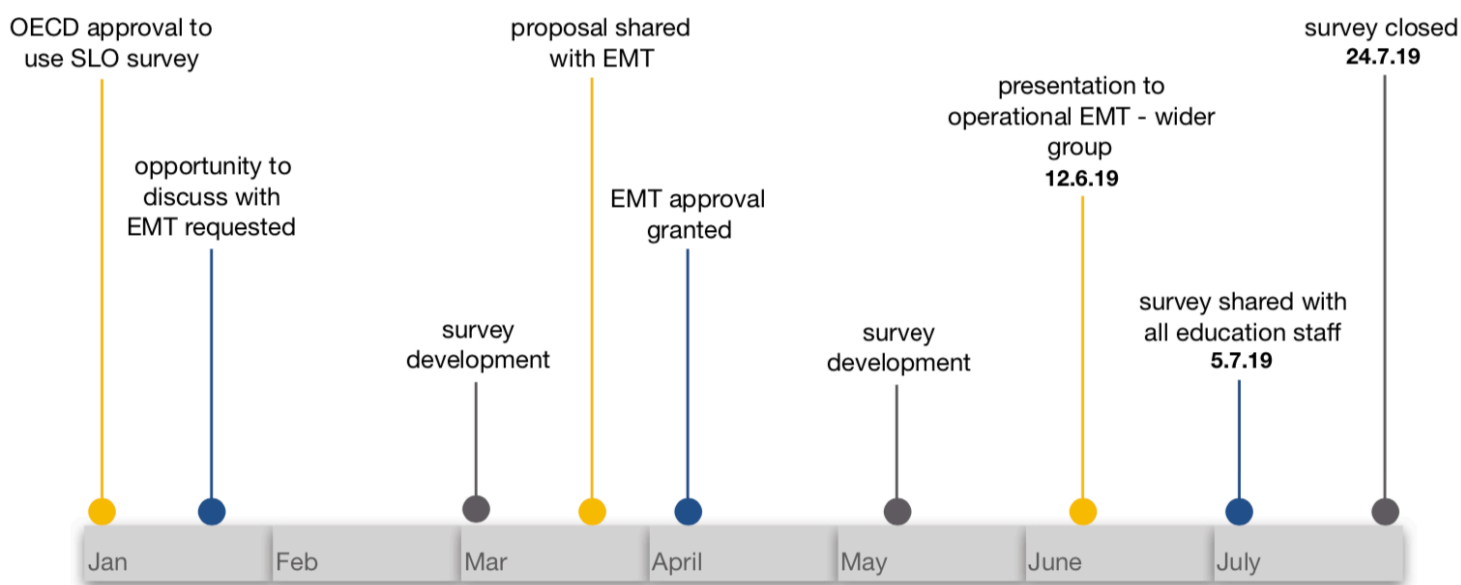


Figure 5: Survey development timeline

Overall, only 4 of the original 69 items were used without any changes (see the purple coded statements - Appendix 8). The majority of the changes were small tweaks to the language used (see the blue coded statements - Appendix 8), such as replacing 'student' with 'learner' and 'pupil', and 'staff' with 'we'. 9 items needed more significant editing (see the yellow coded statements - Appendix 8). This was largely a reflection of the different type of work being carried out by the LA compared to schools, for example within Dimension A replacing "learning activities and teaching" with "team action plans and projects" and "schools governors" with "other departments within the council". 13 items were totally discarded and 7 items were newly created (see the red coded statements - Appendix 8). Within some of the dimensions there was a feeling that the statements needed to be reordered somewhat, and so a third column gives the reference for the OECD item that our item aligns with.

Following the finalisation of the items in each dimension, the researcher and EMT had to agree upon the demographic questions (see Appendix 9: Finalised Tier 2 LO survey). Although these initial questions would not be a focus for the purposes of this research, they would be useful for the Education Service in their consideration of the data. It was important to strike the right balance between useful information to enable us to look for themes, whilst not asking anything which would give identifiable information. The first question would ask participants which service area they work within in Education; Achievement, Inclusion, Services to Schools, Schools Organisation, Access and Planning, or 'other'. Further we agreed that in keeping with the OECD's original survey, and in recognition of the role of hierarchy in the development of the LO characteristics, the second question would establish their role within the service in terms of hierarchy; Education Management Team, Service Manager or Member of teams. An additional question was then added to the survey "My role involves working with...". It was felt that the LO highlights the importance of collaboration with external partners and so each participant was asked to identify their key partnerships, choosing from pupils, parents / carers, schools, regional consortia, children's services, healthy services, Welsh government or 'other (please specify).

3.3.4 Data collection

The final version of the survey was sent to our translation service, as all correspondence from the LA must be bilingual; available in both English and Welsh. Once the Welsh translation was received, the survey was created in the Qualtrics® online survey platform. The majority of fundamental systems and processes within the Education Service are IT and web based, including our interface with schools, pupil records, professional development and human resources tools, and service request systems. Also, many of the service's staff are resourced for agile working as they are out in schools for much of the time. Therefore, a web based platform for the survey was felt to be most convenient for colleagues across the service and so likely to illicit the best response rate. Through my University of Bristol access to the Qualtrics® platform I was able to design a survey so that it was accessible on multiple devices in an intuitive way (see Appendices 5 and 6). Further, this platform enabled the survey to be personalised with the LA logo and a background picture of our local area, all with the aim of enhancing participant engagement (Cohen, Manion, and Morrison 2007; de Bruijne and Wijnant 2013; de Vaus 2013). The link for the survey was shared with all education staff, 629 staff at the time of circulating (see Appendix 10: Survey email to all staff). The data was initially explored using the data reporting function on Qualtrics® before being moved over onto the SPSS® platform to be considered in more detail. Although the data was anonymous, it was stored on a secure, password encrypted personal desktop using the researcher's own SPSS secure log in.

3.4 Intensive method: the focus groups

The second cycle of this CR AR used qualitative interview as an intensive method to explore the richness of the experiences of colleagues and to enable the participants and researcher to collaboratively interpret and construct an understanding of causal mechanisms (Danermark et al. 2002; Smith and Elger 2014). Interviewing is the most widely used method in social science research (Smith and Elger 2014), and incorporates a vast range of approaches from tightly structured one-to-one interviews, to semi-structured, more conversational type approaches (Cohen, Manion, and Morrison 2007). As far back as 1997 there was the suggestion that we had become an "interview society" (Atkinson and Silverman 1997), that interviewing has become part of mainstream culture. At the time of coining the term "interview society" Atkinson and Silverman (1997) were reflecting upon mainstream media such as TV and newspaper. Over the past 20 years the presence of interviews in our everyday lives has steadily increased, in particular through our use of social media. Sharing of interviews, quoting from interviews, posting live interviews and an almost constant feed of live chats through which people take open questions from those who 'follow' them. All of this is further testament to Kvale and Brinkmann's observation that in modern culture interviews are "a social technique for the public construction of the self" (Kvale and Brinkmann 2009: 12). Perceptions of interviewing have become romanticised and, as a result, there is a danger that researchers may feel so familiar with interviewing that they fail to give an appropriate level of consideration to the theoretical underpinnings of it as a method, the approaches, structure and purpose of applying it (Atkinson and Silverman 1997; Gubrium et al. 2002; Kvale and Brinkmann 2009).

Within social science research the value of interviews as a data collection method and the approaches to conducting interviews is much debated (Somekh and Lewin 2005; Kvale 2006; Cohen, Manion, and Morrison 2007; Edwards and Holland 2013; Smith and Elger 2014). There is not the scope within the restrictions of this dissertation to fully examine and explore those debates, but it is important to acknowledge that the epistemological and ontological perspectives of the researcher shape the way in which the interview method is applied. For example, positivists would argue that only through tightly prescribed, structured interviews with standardised and neutral questions and approaches, can we gather "unbiased and replicable responses" (Smith and Elger 2014: 111). The aim of positivist interviewing then, is to generate data to enable generalisations to be made about social phenomena. In contrast, interpretative approaches are focussed on the co-construction of meaning with participants in order to access their subjective views and beliefs (Smith and Elger 2014). Within critical realist research, jointly constructing meaning with participants is recognised "as an essential medium of research and theorizing" (Smith and Elger 2014: 111). In many ways critical realist interviewing is similar to interpretive interviewing, but the critical realist situates social action within social structures and social relations, recognising that they "have both constraining and facilitating implications" (Smith and Elger 2014: 111). The research participants

would consider the stratified nature of reality through a collective consideration of the LO characteristics, how these characteristics may be experienced in their reality and through reflecting on our behaviours, structures and processes as potential causal mechanisms (Danermark et al. 2002).

A relatively recent development in the social science field is the exploration of “creative interviewing” as a concept (Mason 2010). The term “creative interviewing” was originally coined in the 1980’s by Jack Douglas with reference to less structured, more flexible approaches to interviewing that were able to respond to the situational dynamics of the interview (Douglas 1985). The field of sociology at the time was increasingly focussed on the voice of participants; on constructing their views and lived experiences (Gubrium et al. 2002). Douglas (1985) suggested that creative interviewing involved

“...the use of many strategies and tactics of interaction, largely based on an understanding of friendly feelings and intimacy, to optimize cooperative, mutual disclosure and a creative search for mutual understanding.”

(Douglas 1985: 122)

More recently Mason (2010) has deepened the definition, suggesting creative interviews are conversational, communicative, informal exchanges that may involve one or many participants, in which participants may do more than talk or discuss something. Creative interviewing includes any approach that tailors, customises or localises the interview methods to engage participants and enable them to make sense of the research, whilst at the same time maintaining a clear focus on what the research needs to get out of the process (Mason 2010). As such, creative interviewing embraces a wide variety of interview approaches, including mapping, artefacts, sandboxing, vignettes, photomatics, concept cards and drawing. Mason suggests that the use of creative interviewing also encourages us as researchers to think more creatively; to be creative in what we constitute as data (Mason 2010). This CR AR aimed to explore participants’ views of the organisation in which they work from the perspective of the LO dimensions and co-construct an understanding of those causal mechanisms impacting on the development of LO behaviours. Creative interviewing would be used as an approach, using focus groups to generate nuanced, rich data about complex connections and perspectives, enabling the participants and researcher to explore the meanings they attribute to things (Mason 2010).

Focus groups (FGs) can be defined as “a research technique that collects data through group interaction on a topic determined by the researcher” (Morgan 1996: 130). This definition, as simple as it seems, covers three important elements of the method; the production of data, that the data is generated through the interactions and that the topic is researcher led (Morgan 1996). FGs have been around since the 1920’s, originating in market research (Robson 2007) and they have gained increasing attention in the social sciences over the last few decades (Morgan 1996). FGs are an

interactive approach to interviewing, capable of yielding group perspectives and the collaborative nature of focus groups is an essential part of their richness (Cohen, Manion, and Morrison 2007). A thread throughout this research project is collaboration for change, and indeed collaborative learning as a central feature of the SLO model. It was felt essential then to ensure that the approach adopted for the intensive exploration of participant views and meaning making (Danermark et al. 2002) was a collaborative one. Through this process of discussion, reflection and collaborative meaning making, the focus groups participants will be applying abduction as an “explanatory logic” (O’Mahoney and Vincent 2014: 17). Abduction is the “movement from events to their causes” and is a key aim of CR research, in contrast to other traditional research aims such as to “describe, predict, correlate, and intervene” (Clark 2012: 2). Participants will be engaged in a process which

“re-describes the observable everyday objects of social science...in an abstracted and more general sense in order to describe the sequence of causation”

(O’Mahoney and Vincent 2014: 17)

Morgan (1996) explored the ways in which FGs were being used within sociology and identified a number of studies in which they were used in follow-up to a survey to explore in greater depths the views of participants (Morgan 1996). He suggested that a much less common use of FGs in conjunction with surveys, was to use a survey as a preliminary method to develop either the sample selection, or refine the topics of focus (Morgan 1996). This research combined both of those purposes, using the survey to begin to reflect on the views of the wider service, and using those findings to refine the discussion points for the FGs. Through using the FG method this research would explore the values and opinions of participants, “generating hypotheses that derive from the insights and data from the group” (Cohen, Manion, and Morrison 2007: 376). The process of engaging in focus groups can also be empowering for participants, which links back to the emancipatory nature of CR AR research and the importance of arming participants with the knowledge to make changes themselves (Ram et al. 2014).

3.4.1 Researcher access

As explored in section 3.3.1, when carrying out insider research we must be aware of, acknowledge and reflect upon those elements arising from the positionality of the researcher if we are to ensure ethically mindful research practice (Guillemin and Gillam 2006). Primary access was relatively easy to obtain as an existing practitioner within the Education Service. However, secondary access, that is access to elements such as people and meetings, took negotiation throughout the process. This often highlighted the role duality of my place within the organisation and its hierarchical structure, and my role as the researcher (Brannick and Coghlan 2007). As an example, I had to wait for an opportunity to discuss the second cycle of the research at an EMT meeting and was, a few times, dropped from the agenda due to other pressing matters. The intention to carry out a second cycle

using focus groups was discussed with the Director of Education and the EMT during the planning and preparation phase of the first cycle of research. However, once the initial data from the survey was available to share with the EMT for their reflections, permission still had to be sought for the FGs to go ahead. Once this permission was granted, the communications to all staff inviting them to volunteer for the FGs would, once again, come from those senior leaders rather than me as the researcher. As with the first cycle of data collection, the decision was made to make the FG opportunity open to all staff in the service. My existing knowledge of the service areas, teams and managers, alongside my understanding of systems leadership and complexity, enabled me to consider the importance of representation from across the service. Senior leaders agreed to share information about the FGs with their teams and encourage attendance and it would be essential that that information was clear and carefully planned to encourage participation.

3.4.2 Information for participants

The data generated by the whole service survey were presented at an EMT meeting alongside a proposal for the next cycle of data collection (see Appendix 11: Focus group proposal for EMT). Having gained EMT consent for the FGs to go ahead I was asked to draft a brief email explaining the FG events and their purpose, and share it with an Operational Manager (OM) overseeing performance. An email was sent to all members of EMT and wider leaders across the service from the OM, inviting colleagues to participate and outlining the purpose of the groups (see Appendix 12: Email to all staff outlining focus groups). The email gave dates and times of four FG sessions from which participants could express an interest in attending. Also, attached to the email was a "Participant Information" document (see Appendix 13: Participant Information), which gave more detail regarding the purpose of the research, what would be involved if they attended, that participation was voluntary, how the session would be recorded, anonymity and the storing of data. This email was shared with all staff via their managers or team leaders and volunteers were sought to participate. The initial mechanism for expressions of interest was via an attached form, created in Word®. As an authority we are very mindful of the General Data Protection Regulation and so the most obvious options, through platforms like Google Forms® are not accessible on our council systems. The Word® form proved somewhat problematic for some colleagues, who were perhaps running different versions of the program, and so a follow-up email was sent out with a link to an online form using the Qualtrics® platform, enabling the data to be stored securely (see Appendix 14: Email invite with Qualtrics link). Both forms asked participants to verify that they had read the Participant Information sheet and indicate which session they would like to join.

Once the groups were established, an email was sent out directly to each participant confirming their attendance and any further information about the session (see Appendix 15: Participant confirmation email). The Participant Information sheet was again attached to the email for any participants who had indicated on their form that they had not yet received a copy and participants were reminded to read through the information before the event. On the day of the focus groups the

same key information was shared with participants and all were given an opportunity to read and sign individual consent forms (see Appendix 16: Participant consent form). Ensuring that participants were aware of the purpose of the discussion, how their views would be recorded, stored, processed and used, was essential. Participants were ensured anonymity, that they could withdraw from the research at any time and the process to enable them to do this. These key elements of participant information will also be considered in section 3.8 examining the ethical procedures for the research.

3.4.3 Planning for the focus groups

FGs are a communicative exchange between a small number of individuals and so consideration had to be given to the way in which the groups were managed through the discussion process. It was important to ensure that all present felt comfortable, were given an opportunity to share their views and that we avoided participants having to compete for space within the discussion. This can call for the facilitator to have well developed people management and mediation skills. Within my practitioner role I often conduct meetings in challenging circumstances, including those in which there are differing and emotive views. I also often lead groups in which my role is facilitating the development of new ideas or ways of working, relying on everyone feeling able to share ideas. As such, I felt equipped to facilitate the FG discussions, but none-the-less recognised the importance of reflecting upon the potential challenges to being both researcher and facilitator. It would be essential to acknowledge my 'preunderstanding' of the Education Service and be mindful to ensure that my lived experiences as an employee, my own views and my knowledge of the organisation did not influence the FG discussions. The duality of my role as researcher and as practitioner within the organisation, could have made it difficult to be present in discussions with colleagues and not share my own views or ideas. However, the aim of using FGs in this CR AR aims was to engage *participants* in collaborative reflection and for *them* to co-construct a view of the barriers and affordances to us developing as a LO. As such, my role as the facilitator would be to provide a framework for the sessions and key to this would be carefully planning the approaches I would take. These approaches will be outlined in detail in section 3.3.4.

Throughout the planning and execution of the FG sessions I had to remain mindful and reflective about potential role conflict that can arise for insider research (Brannick and Coghlan 2007). Having existing relationships with colleagues within the service could have influenced participation, with those who know me being more likely to volunteer. Being mindful of this, each group was arranged to have representatives from across at least 4 of the 5 service areas, ensuring that representation from the Inclusion Service (my area of work) did not dominate the groups. Further, it would be important to ensure that all present felt equally comfortable and able to participate, and that any familiarity with participants did not alienate those that didn't know me. Here the creative interviewing approach would be valuable; enabling me to reflect upon the need to create a comfortable, conversational, informal atmosphere in which participants understood that they were

participating in a collegial, co-construction of ideas. I was able to create a relaxed and informal exchange, whilst providing some structure to stimulate discussion and keep discussions moving forward.

As is reflected throughout this research, one of the challenges of conducting insider AR alongside a full time professional role is time management and the constraints of existing systems and processes. During the planning phase for the FGs there were a number of elements beyond the researcher's control which impacted on timings, such as awaiting opportunities to attend EMT meetings, and the time taken for EMT members to circulate information to colleagues. It must be acknowledged that although the EMT agreed that this research was relevant for the whole service, as part of our wider self-evaluation processes, it was of course just one small fraction of a complex web of priorities and pieces of work for those officers. As such, when the opportunities came to move things forward, it was imperative that I be able to move swiftly. Once EMT approval had been gained for the FGs in early November, the dates were set for last two weeks of that academic term. The invite email sent out from the OM was sent out in the final week of November, just two weeks before the first session. This timescale was not ideal in terms of organising the participants for each group and took careful management and good planning.

Four FG events were scheduled across the two week period. The timings were shaped somewhat by when rooms were available. The room booked needed to accommodate up to 6 participants and the researcher, and have a screen to engage participants with the online interactive presentation platform. A key challenge to running FGs with professionals is time. A balance one must strike is between taking enough time to make the sessions fruitful, but not taking so much of people's time that it discourages participation or leads to resentment during the interview. The decision was made to limit each FG session to one hour. Further, it is important in these creative interviewing sessions to strike the balance between structuring the discussion to ensure participants stay on track and the data generated is relevant to the research, whilst giving participants the freedom to explore ideas together and generate their own ideas. As such, the sessions had a skeleton framework and resources to stimulate discussion, whilst the ideas and reflection generated would be shaped through the group interactions.

An interactive online presentation was designed using Mentimeter® to set the scene and stimulate reflection and discussion (see Appendix 17: Menitmeter® interactive presentation). It began with a slide which echoed the message of the EMT regarding where the LO work sits within the current context of the Education Service. The second slide listed the 7 LO dimensions and offered an opportunity to remind participants about the survey which went out in July. The third slide was the first interactive slide of the session and asked each participant to consider the 7 LO dimensions and place them in rank order of importance. This task served a few key purposes; it was an ice breaker

activity, it aimed to get participants thinking in more depth about each of the LO dimensions and was an opportunity for them to familiarise themselves with the interactive [menti.com](https://www.menti.com) platform. Participants were then shown a slide which summarised the data from the LO survey, showing the Education Service's mean score per dimension and were given time to reflect on those scores. The groups were then presented with the heat map scores for each dimension (see Appendix 18: Heat map of mean scores). Due to the time constraints the decision was made to focus on the top scoring items in each dimension in the first half of the discussion and then focus on the bottom scoring items for each dimension in the second half; eliciting participants views of what is enabling us to develop in the areas we are doing well and what is holding us back in those areas in which we scored lowest. Although this was necessary in the context of these FG sessions, it did limit the breadth of discussion; something that will be discussed in detail in chapter 6.

3.4.4 Data collection

The aim of the FGs as a creative interview approach was to facilitate a somewhat informal and conversational exchange in which the participants could co-construct meaning through discussion; a format with which many professionals within education are familiar. As highlighted in section 3.3, the survey used as an extensive data collection method in the first cycle of the research aimed to introduce the topic, familiarise colleagues with the model, begin to engage them in reflection and offer a framework around which to build the deeper FG discussions. The focus was not the validity or reliability of the survey as a research tool. However, considering the qualitative rigour within the second cycle of research, in which focus groups would be used as a method of data collection, would be essential. Since the 1980's there has been much debate about the application of the traditional notions of *reliability* and *validity* to qualitative social science research (Lincoln et al. 1985; Denzin and Lincoln 2008; Kincheloe and McLaren 2008; Morse 2017). For the purpose of this study I will apply Lincoln and Guba's (1985) criteria for *trustworthiness*, which focus on credibility, dependability, confirmability and transferability as a framework for reflection. It would be essential for this research to ensure that issues surrounding *trustworthiness* were considered throughout. This aligns with the ethically mindful approach being taken (Guillemin and Gillam 2006; Sikes 2006; Bond 2012), which will be discussed further in section 3.7. Field notes would be kept throughout the research process to enable me to consider my own subjective perspectives and reflections, to support reflexivity throughout the process.

Considering the *credibility* of the research is to reflect upon whether the data captured, presented and described by this study would be consider a true reflection of the focus group discussions. *Credibility* highlights the potential bias that can arise and the field notes kept during the course of the research offered an opportunity for me to be reflexive of any bias arising. Within qualitative data collection methods in social science research, the data is always subject to the interpretations made by participants and researchers, and neither can ever be neutral as "they are always positioned culturally, historically and theoretically" (Freeman et al. 2007: 27). Within the FGs there is always a

risk of researcher bias impacting on the shaping of the questions, the leading of the discussions and the interpretation of the data (Cohen, Manion, and Morrison 2007). As insider research this element of researcher bias had the potential to increase, with the 'preunderstanding' and role duality that exists (Coghlan 2007). The careful planning and structure of the approaches used within the focus groups, as outlined in the previous section, would aim to reduce bias and increase *credibility*. Careful thought was given to providing the participants with a stimulus for discussion, without leading the discussion as the facilitator. A further approach to minimise bias in interview methods is to seek participant validation (Bush 2012). The data collection for this discussion was not only through the traditional method of audio recording and later transcribing the discussion but, more importantly for this creative interview approach, through the online interactive platform Mentimeter®. This platform enabled participants to log their responses and ideas anonymously using any electronic device, such as their mobile phone, laptop or tablet and the data was logged anonymously, stored in a secure online account. The data generated took the form of visual representations of a rank ordering question, followed by the key ideas generated by each group being captured in text format as live concept walls (see Appendix 19: Mentimeter® data). The online platform collated the written responses in real time, and so all participants were given an opportunity to review the data and make any suggestions for amendments as we went along.

The detailed examination and description of the research processes captured in this dissertation aim to ensure *dependability* of the research (Lincoln et al. 1985). Clear descriptions of the methodological considerations, data collection methods, thematic analysis and procedures, aim to ensure that "the research process is clearly documented, logical, and traceable" (Bloomberg and Volpe 2018: 317). *Confirmability*, which focuses on ensuring that any findings and interpretations are a true reflection of the data and not a manifestation of researcher bias, will be imperative to ensure *trustworthiness* of the research (Lincoln et al. 1985; Morse 2017). Once again this is something that will be woven throughout the dissertation, ensuring that the reader is able to clearly see the audit trail (Lincoln et al. 1985) as the study moves through the "methodological, theoretical, and analytic choices" of the study (Bloomberg and Volpe 2018: 318). As highlighted through this chapter, critical realism acknowledges that reality exists separate from our knowledge of it; that our knowledge of reality is fallible and, as such, we are not aiming for absolute truth. We are hoping to construct knowledge from the reflections of participants and acknowledge that this will be shaped by their own views, experiences and beliefs. The final element of Lincoln and Guba's (1985) elements for establishing *trustworthiness* is that of *transferability* (Lincoln et al. 1985); that the research is able to "develop descriptive context-relevant findings" applicable to other contexts "while still maintaining their content-specific richness" (Bloomberg and Volpe 2018: 319). The aim of CR research is to achieve generalisation, not as extrapolation as in the empiricist perspective of assuming observations of phenomena are valid for larger populations, but in the realist sense of generalisation of the 'deep structures of reality' or 'transfactual conditions' that make an object what

it is (Danermark et al. 2002: 77). The study will document the process of applying retroduction, pulling together the reflections of participants with key theoretical constructs, to construct a deeper understanding of causality in developing as LO (Danermark et al. 2002; O'Mahoney and Vincent 2014). Providing thick description which outlines the research context, related experiences and participants, will enable readers to reach decisions about the transferability of the findings and research processes to other contexts.

3.5 Power and Participant Relations

The power and participant relations are significant factors in insider research (Merriam et al. 2001). In order for this research to begin I needed approval from the Director of Education and wider Education Management Team (EMT). My 'preunderstanding' of the hierarchical nature of the service, and my place within that hierarchy, enabled me to navigate the necessary processes for seeking such approval (Brannick and Coghlan 2007; Coghlan 2007). However, my position within the service's structure may also have made me more cautious about my approaches and less likely to push my research agenda when processes slowed. For example, there would be were occasions when the research was dropped from the EMT agenda or when members of EMT would take longer to action a task linked to the research due to other pressing issues. It would also be important to ensure the research discussions and outcomes were not shaped by any political agenda from within the service. The topic of the research was obviously of interest to the EMT and it would have potential implications in terms of our pending LA inspection from Estyn. The Education Service had also given some financial support towards my EdD, and it was imperative not to allow that to feel like a weighted bias towards any agenda for the service. The research had to be sensitive to the needs of service, individuals and teams whilst being careful to ensure a fair and transparent reflection was given. This would be done through a reflective and reflexive dialogue throughout.

As previously acknowledged, it was imperative throughout this insider AR that I reflect upon my own views, beliefs or preconceptions as well as consider the interplay of my role as researcher and my role within the structure of the service. During the planning phases of both data collection cycles these reflections gave much food for thought. One initial consideration was that of the sampling process. The role conflicts that can arise when engaging in research in your place of work, and whilst working full time, could have led to a temptation to approach familiar colleagues to secure engagement with the survey and the FGs. However, this would have significantly shaped the survey responses and the dynamic of the dynamic of the FGs. The electronic survey would be made available to *all* Education Service staff and therefore, the interplay of my role as researcher and my role within the structure of the service did not impact on who was given the opportunity to participate. Whether it impacted on who chose to participate, will be discussed in chapter 4. An underlying theme of both systems theory and complexity theory is that of emergence from the edge

of chaos (Waldrop 1992; Byrne 1998; Anderson 1999); one interpretation of this concept was the notion that by taking people out of their comfort zones and engaging them in discussion and reflection, with colleagues they would not usually collaborate with, we could generate a richness of ideas that would not otherwise have come about. Therefore, through agreement with the EMT, colleagues from across the Education Service would be encouraged to participate in the FGs.

Planning the FG discussions highlighted a further element to reflect on in terms of power and participant relations; the position of participants' within the service's hierarchical structure. Much consideration was given to the participation of senior leaders, those members of the EMT, in the FG sessions. I had reflected upon the potential impact of their attendance on group dynamics, such as dominance within the discussion, bringing in a political agenda and other participants being reluctant to speak openly. I considered running a separate FG session with the EMT to gain their views without having them impact on the dynamic of the wider groups. However, I also had to acknowledge the disconnect between that approach and the theoretical underpinning of the model I was exploring. The LO and systems theory frameworks view leadership as existing at all levels of a system and consider it essential that those in formal leadership positions foster an ethos of openness, and are themselves willing to have their views and ideas challenged by colleagues. At the EMT meeting in which permission was sought for the FGs, I asked if members would be open to putting themselves forward to participate. Leaders shared similar reservations to those I had already considered and I was able to outline my reflections of the potential limitations and benefits of their attendance. Acknowledging that the richness of their participation would likely outweigh any negative impact on dynamic, it was agreed that senior leaders would participate. This decision highlighted the importance of my role as the facilitator in managing the group dynamics and setting the tone of the sessions.

3.6 Reporting the research

The data would be reflected on as it occurred through the two cycles of collection and then themes and reflections drawn together. As CR AR, the complex nature of the organisation and connections that may arise are part of the process of reflection, as is the social construction of meaning. CR as a meta-theory for AR offers "a means of reconciling the tension between meaning-making and causality" (Ram et al. 2014: 206). It enables the researcher and participants to explore their pre-existing beliefs and views, as well as developing causal theory connecting participants beliefs and views with elements such as the environment, their behaviour and reasoning. Engaging with participants to reflect upon the LO model with respect to their own work and their views of the organisation, as well as collaboratively exploring the potential barriers and affordances to those ways of working, this research aimed to contribute towards changing practice. Due to the complex and causally contingent nature of large organisations, the researcher acknowledged at the outset the challenge of impacting on practice (Edwards, O'Mahoney, and Vincent 2014b). However, by

applying a critical realist AR framework, and engaging the participants in meaning making, the researcher aimed to place causal responsibility into their hands. Through “promoting critical consciousness” amongst participants the research hoped to identify and explore “social constructions, structural conditions that constrain, and mechanisms that have the potential to operate in a more progressive manner” (Ram et al. 2014: 219). Through enabling participants to develop insight into generative mechanisms, CR can be a “precursor to change” (Ram et al. 2014: 206) as

“...being able to perceive these forces is the first step in controlling them, rather than being controlled by them”

(Friedman and Rogers 2009: 44)

3.7 Research Ethics

Throughout this chapter I have endeavoured to evidence an ethically mindful approach to the research, demonstrating my awareness and responsiveness to the ethical considerations and issues arising throughout the research planning and data collection. The importance of ethical considerations being integral to the research process and mindset of the researcher, rather than a mechanistic, stand-alone process undertaken as an add-on to research planning, is increasingly acknowledged (Guillemin and Gillam 2006; Sikes 2006; Bond 2012). Guillemin and Gillam (2006) suggest 5 key elements to ethically mindful research; being aware of the day-to-day ethically important moments, being responsive to such moments particularly those that don't feel right, being able to outline and examine ethically important elements within the research, being reflexive throughout and finally, being courageous in ones approach to ethics throughout your research. As such, I took the decision to weave the ethical considerations throughout this chapter, acknowledging and reflecting on them as they arose. Throughout the research I was guided by the BERA *Ethical Guidelines for Educational Research* ([BERA] 2018) and the University of Bristol's School of Education (SoE) Framework for Ethical Research. Following the SoE ethics procedures, once my ideas for the research had been developed and discussed with my supervisor, I completed the SoE's Research Ethics Form outlining the research proposal and reflecting on key points for ethical consideration:

- Researcher access
- Power and participant relations
- Information for participants, Participant's right of withdrawal, Informed Consent, Complaints procedure, Safety and well-being of participants/researchers, Anonymity/confidentiality
- Collection, Analysis, Storage and Protection of the Data
- Feedback, responsibilities to colleagues/academic community and the Reporting of research

Through ethical discussions with two fellow researchers from the SoE I was able to reflect more deeply on each of these elements and further develop my proposal (see appendix 23: Ethics Form).

The ethics form was then electronically submitted to the Ethics Committee for ethical approval, the confirmation of which can be found in appendix 24.

The intention of the researcher to audio record the group discussions was outlined in the Participant Information and Consent forms. Storing any kind personal data we must ensure we are General Data Protection Regulation (GDPR) compliant and adhering to the UK Data Protection Act (2018), something we are very aware of as professionals working within education. Within the context of this research, this meant very careful consideration needed to be given to the recording, storing, processing and using of any personal data. The audio recordings were made on the researchers personal encrypted digital recorders following the University of Bristol's "*Mobile and Remote Working Policy*" and the audio files were then transferred and stored onto a password protected personal desktop computer whose operating system, and therefore security, is kept fully up-to-date. Audio recordings of each session were transcribed. There are significant benefits to transcribing one's own recordings within a study, such as developing an intimate knowledge of the content and, having been present for the discussions, being able to have better clarity on the transcription of some content. However, when carrying out research at this level whilst working full-time, time is a scarce commodity. I felt that the time taken to transcribe the 3 one-hour recordings would be better spent in reflecting upon the findings and research process and so a paid-for transcription service was used. The recordings were transcribed by Uk Transcription Ltd, a University of Bristol approved external transcription company which has a formal agreement acknowledging its compliance with the Data Protection Act. The recordings and transcripts were transferred using the UK Transcription Ltd secure online transfer portal.

3.8 Data Analysis

3.8.1 Quantitative data

The first cycle of data collection in this AR generated quantitative data. One challenge when carrying out AR in your place of work is knowing how to boundary that which is useful and relevant to the research process versus that which is additionally relevant for the organisation and, perhaps, your role more widely. An example of that is how the survey data would be used. The purpose of the survey for the research was as an extensive method, exploring the views of participants and shaping the focus for the second cycle of research. No inferences were being made from the survey data or predictions being formulated; the analysis aimed simply to describe the findings in ways which would support further exploration (Cohen, Manion, and Morrison 2007). However, for the organisation more widely, construct validity tests and inferential statistics would also have value. Comparing the views of participants in different roles or service areas using the t-test or the Analysis of Variance (ANOVA) tests, or examining the survey's internal consistency through using the Cronbach's alpha coefficient to further develop the survey for future use (Boone and Boone 2012;

Trochim 2020). These elements have been explored, but for the purpose of this research I would consider the data using descriptive statistics.

The survey, with its demographic questions alongside 63 Likert-type items, generated a large amount of data. In order to make that data accessible, descriptive statistics were used to present summaries of what was found; these summaries would be used to plan the second cycle of data collection. The distribution of the categorical data would allow for an exploration of the sample group, helping us to understand which colleagues across the service had engaged with the survey. The data generated by the Likert scale questions would be explored by central tendency. Much debate has existed over the last 60 years round the analysis of Likert scale data, largely focussing on the classification of data as ordinal or interval for the purposes of parametric testing (Jamieson 2004; Norman 2010; Sullivan and Jr 2013). When considering individual Likert-type items we are not able to say that there is the same degree of difference between “neither agree nor disagree” and “somewhat agree” as there is between “strongly disagree” and “somewhat disagree” and so the data is ordinal rather than interval (Norman 2010). When considering the central tendency for ordinal data it is most appropriate to use median or mode. The survey used Likert scale questions, that is four or more Likert-type items pertaining to an overarching theme. The Likert-type items in each dimension can be combined into a composite score for each scale and at this point the data can be analysed as interval data, with the mean as the most appropriate measure of central tendency (Jamieson 2004; Cohen, Manion, and Morrison 2007; Trochim 2020). The mean composite scores for each Likert scale, i.e. each LO dimension, were calculated. However, the individual Likert-type items would be used within the focus groups as prompts for discussions and so how these were represented would be of key importance to those discussions.

Table 1 below is presented here to clarify the consideration given and decisions made, using the descriptive statistics for Dimension A as an example. As was the case across all dimensions, the median was found to be too blunt an instrument to generate discussion; it gave no indication of the differences in views. For example, as can be seen from Table 1, the median score of 4 for item A6

Dimension item	Mean	Median	Std. Deviation	% who somewhat agree or strongly agree	% who somewhat disagree or strongly disagree
A6. Team action plans and projects are designed with the vision and goals in mind	4	4	0.986	78%	9%
A2. The vision and goals emphasise preparing pupils for their future in a changing world	3.94	4	0.980	74%	8%
A1. We are involved in developing the Education Service’s vision and goals	3.76	4	1.158	71%	17%
A3. The vision and goals are inclusive of all pupils	3.74	4	1.173	70%	19%
A5. We are inspired and motivated to bring the vision to life	3.62	4	1.112	64%	18%
A7. Other departments within the council are invited to contribute to the Education Service’s vision and goals	3.52	3	0.941	50%	9%

A4. The vision and goals are understood and shared by all staff working in the Education Service	3.43	4	1.116	54%	23%
A10. External partners are invited to help shape the Education Service's vision and goals	3.43	3	0.968	42%	10%
A8. Pupils are invited to contribute to the Education Service's vision and goals	3.36	3	1.098	45%	19%
A9. Parents / carers are invited to contribute to the Education Service's vision and goals	3.17	3	1.077	34%	22%

Table 1: Comparison of average measures

and item A4 gives no indication of the differences in frequency distribution for those items. The median scores for every item across each dimension were either 3 or 4. This gave us no examples of highest and lowest ranking items to generate discussion. It would be possible to order the items in each dimension by frequency distribution percentages of those who “somewhat agree” or “strongly agree”. This would give a top and bottom ranking item but it would not capture the percentage of participants who had selected “strongly disagree” to “somewhat disagree” nor those who had selected “neither agree nor disagree”. Without presenting the focus group participants with all frequency distribution percentages they would not be getting a full picture of responses against each item. However, to do so would be to give too much information for the purpose of sparking a discussion within a time limited focus group. The mean scores gave almost identical ordering of items (see Appendix 20: Comparison of dimension items by mean vs frequency distribution scores) and made it possible to present the data to participants in an accessible way.

3.8.2 Qualitative data

The quantitative data gathered through the second cycle of data collection consisted of the Mentimeter® concept walls and transcripts of discussions. An iterative process of inductive coding was applied to enable exploration of the data and to allow the themes to emerge (Cohen, Manion, and Morrison 2007). An aim of the research was to engage colleagues in a process of reflection and co-construction of possible causal mechanisms to the organisation developing systems thinking. It would therefore be important to be able to consider their ideas and reflections in the context in which they arose and so the transcripts were initially chunked into the discussions around each dimension. A layered process of coding then began with descriptive, open coding, where the first level themes emerged from the data (Bernard 2000: 445; Punch 2014). This descriptive, low-inference coding, also known as inductive analysis, enabled the data to be explored and common ideas and themes identified as they arose through the discussions (Bloomberg and Volpe 2018). It is essential that I be continually reflexive throughout this process to be aware of the impact of my own views, perceptions and ideas as I selected those parts of the data for analysis. Throughout this process my own bias inevitably shapes the interpretation of the data and, although it is not possible to eliminate this entirely, one should strive to remain self aware and reflective (Bush 2012). When coding the data I was mindful that my own professional experiences at that time could potentially shape my interpretation. However, through remaining self-aware I aimed not to let that bias shape the data being identified and coded. Similarly, I had expected a lack of funding or capacity to

feature much more significantly as a barrier throughout the discussions as it has featured in so many discussions in the organisation previously. However, although they are mentioned, the frequency was minimal in comparison to other themes arising.

The second level of coding applied a higher level of inference to abstract conceptual themes arising from the data (Bernard 2000; Cohen, Manion, and Morrison 2007; Punch 2014). Through an iterative process of refining and grouping, 48 first level themes were identified, with 26 arising from discussions of what are the affordances to our developing the LO characteristics and 22 themes arising from discussions of barriers. What emerged through reflection and analysis were 6 second level themes under which the first level themes for both the barriers and affordances could be

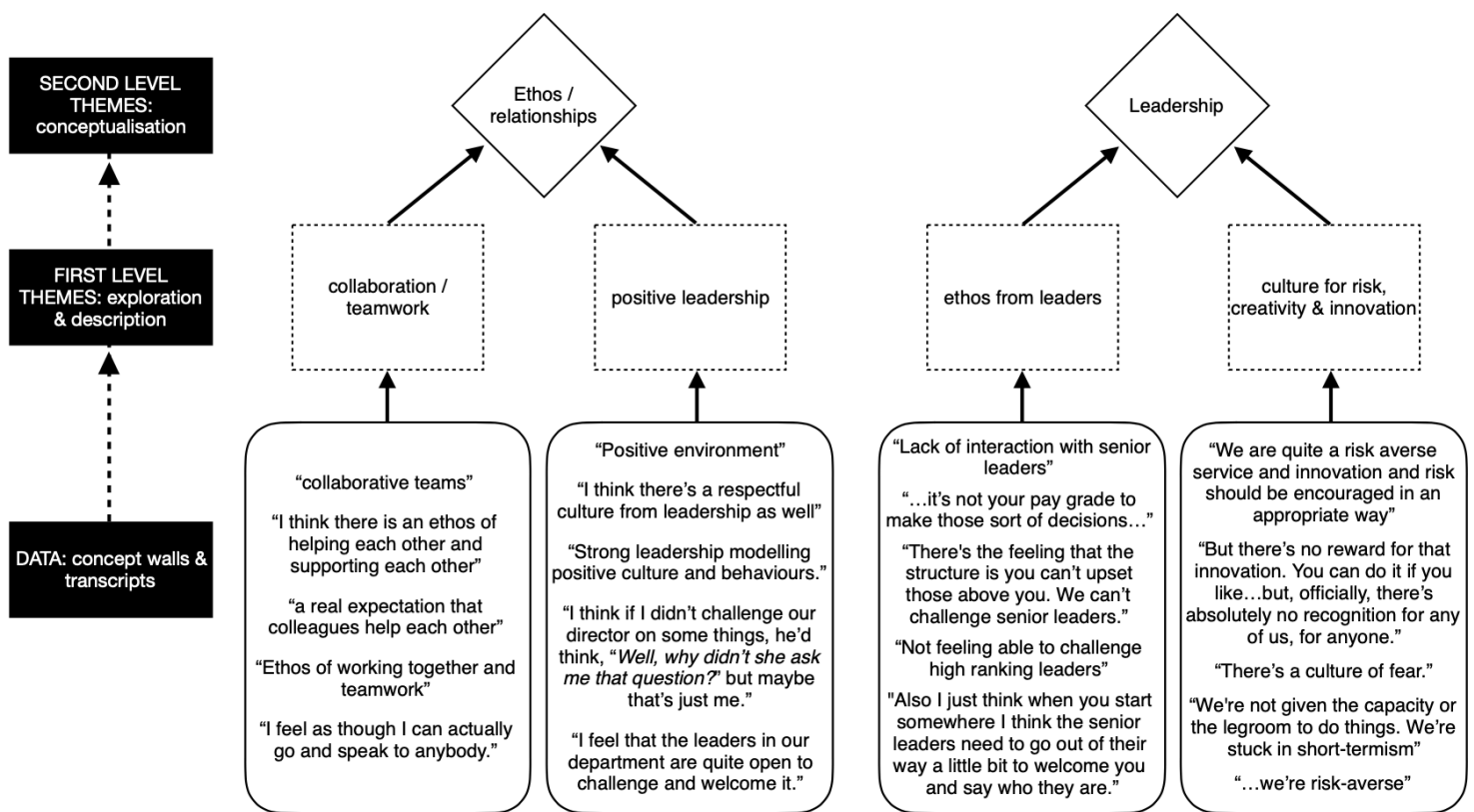


Figure 6: Example coding process

grouped. These were: Communication, Ethos/ Relationships, Leadership, Opportunities, Processes and Resource (see Appendix 21: Intensive data - first and second level themes) for a full list of the themes arising. Figure 6 overleaf provides an example of the coding process. This is a snapshot of the process, but aims to illustrate how themes emerged. Text from the concept walls and transcripts were grouped into the first level themes of "collaboration / teamwork" and "positive leadership" and were then brought together under the second level theme of "Ethos / relationships". The first level themes of "ethos from leadership" and "culture for risk, creativity & innovation" were placed under the second level theme of "Leadership".

From the coding and thematic analysis it became apparent that many of the arising themes interlinked in some way. This was not unexpected given the complex nature of the organisation and the framework we were discussing; the LO framework is itself based on systems theory and therefore the concepts are interconnected and complex. As the focus of this CR research is on that which is creating or producing events, rather than the events themselves, abductive reasoning would be applied; that is reasoning which is concerned with sense making (Brinkmann and Kvale 2014; Bloomberg and Volpe 2018). The themes arising and the interconnectedness of the affordances and barriers constructed by participants would be explored to better understand our organisation. A concept map was created using Nvivo® to explore those links (see Appendix 22: Concept Map) which will be considered in chapter 4 through the presentation of findings and within the discussion chapter that follows.

3.9 Summary of methodology

Through this chapter I have outlined the development and implementation of a CR AR methodology, using sequential mixed methods. Through the exploration of two research cycles, applying first an extensive method followed by an intensive method of data collection, we have examined the processes and considerations needed to implement this research in a complex organisation. Throughout this chapter I have outlined the ethical considerations given to both cycles of data collection, evidencing an ethically mindful approach to the research. In the next chapter I will present the research findings. This will begin with a presentation of the survey data and how it would be used to frame the FG discussions. Following this, the chapter will offer a detailed presentation of the data arising from the FGs, against the LO Dimensions in the first instance, followed by the themes arising from the thematic analysis.

4. FINDINGS & ANALYSIS

4.1 Introduction

Through chapter 2 I considered the complexity and systems theory frameworks (Davis and Sumara 2006; Senge 2010; Cilliers 2011; Byrne and Callaghan 2014) and their underpinning of the Schools as Learning Organisations (SLO) model introduced for Tier 3 of the Welsh education system (Yang, Watkins, and Marsick 2004; Kools and Stoll 2016b). Acknowledging the Welsh Government's (WG) intention that the model support schools to manage current education reforms (Government 2017a), I considered its application to the wider education system. Through chapter 3 I explored how my understanding of our Tier 2 organisation as a complex organisation aligns with my view of reality and what can be known as a critical realist (Danermark et al. 2002; Byrne and Callaghan 2014). A critical realist (CR) action research (AR) methodological framework was developed, through which the WG's SLO model was adapted and applied within a Tier 2 context; a local authority (LA) Education Service.

This chapter begins with an overview of the key findings from both iterations of data collection and the thematic analysis. This is followed by a more detailed presentation of the data gathered through the first iteration of data collection: the survey. As discussed in chapter 3, the survey was the extensive data collection method and was used to introduce colleagues to the SLO model, its concepts, and to examine existing conditions as a springboard for deeper reflection. As such, the presentation of the survey data will focus on how the data was used to inform the planning and execution of the next data collection cycle; the focus groups (FGs). An in-depth presentation of the data gathered through the FG discussions is then presented in two ways. The data is initially explored against the learning organisation (LO) dimensions, in keeping with how the discussions were approached. This is followed by a presentation of the themes arising from the thematic analyses outlined in chapter 3. The final section of this chapter presents data which arose as an unexpected outcome of the FG discussions, in the form of suggested solutions. Participants were at times drawn to offer solutions when asked to consider barriers. The solutions they suggested will be outlined within this chapter as this will form part of the deeper reflection explored in chapter 5.

4.1.1 Key findings

1. The adapted Welsh Government SLO survey enabled some colleagues across the Education Service to engage in reflection about practice in our own organisation.
2. The survey data provided a framework for the focus group discussions identifying the key areas in which, on average, participants felt we were performing the strongest and those against which it was felt we need greatest improvement.

3. Participants, when presented with the LO survey results as a framework, were able to reflect upon our current practice against the characteristics of the LO and co-construct potential affordances and barriers.
4. Barriers and affordances were thematically coded to fit within 6 second level themes of Communication, Ethos/Relationships, Leadership, Opportunities, Processes/Systems and Resources.

4.2 Extensive data

In this section I will give a brief overview of engagement with the survey, beginning to answer RQ one: *“Can the WG’s SLO framework be adapted to engage colleagues in reflecting upon our own practice as a Tier 2 organisation?”* This will be followed by a reflection on how the survey data was then used to engage colleagues in a deeper process of reflection, through the planning of the focus groups.

4.2.1 Colleague engagement

The survey link emailed to staff was an open link, to ensure that all responses remained anonymous. However, this also meant that people could start the survey multiple times. As a result, the survey link was activated 268 times, but 123 of those weren’t fully completed. As a result, 143 respondents fully completed the survey, giving us a 23% response rate. Only the fully completed responses were used in the data analysis as it was not possible to know if incomplete responses were repetitions of completed ones.

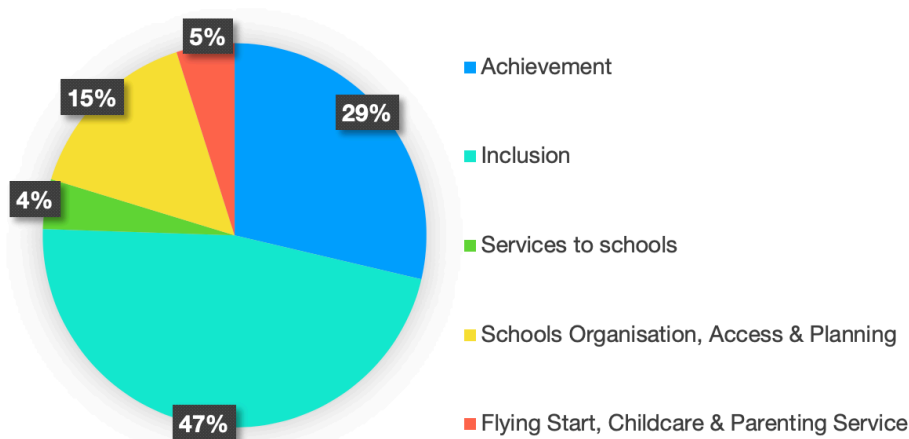


Figure 7: Spread of responses across service areas

The survey began with some demographic questions to enable us to consider levels of engagement across the service areas, response rates through the leadership structures and key partnerships already in place. Figure 7 shows the spread of staff engagement from across the service. The

demographic questions were included as the information gathered would provide points for reflection for the Education Service outside of this research. The demographic data for the purpose of this research was of interest in terms of reflecting upon staff engagement with the survey and planning to ensure a good representation from across the service for the focus groups. It is worth reflecting, in terms of power and participant relations, that the researcher’s own service area had

the highest response rate at 47%, suggesting that the interplay between my role within the service and as the researcher did influence participation in the survey.

4.2.2 Framework for deeper reflection

As outlined in the data analysis section of Chapter 3 the data generated by the survey could be considered and represented in many different ways to serve the needs of the Education Service. A number of these representations were considered by the researcher as I explored the data and how it may shape the next cycle of the research, as well as how it could be purposeful to the service. For the purposes of this CR AR, the data were explored from the perspective of what might stimulate discussion amongst colleagues in the focus groups sessions. Acknowledging that these sessions would need to be kept to a time limit to enable colleagues to participate, it was

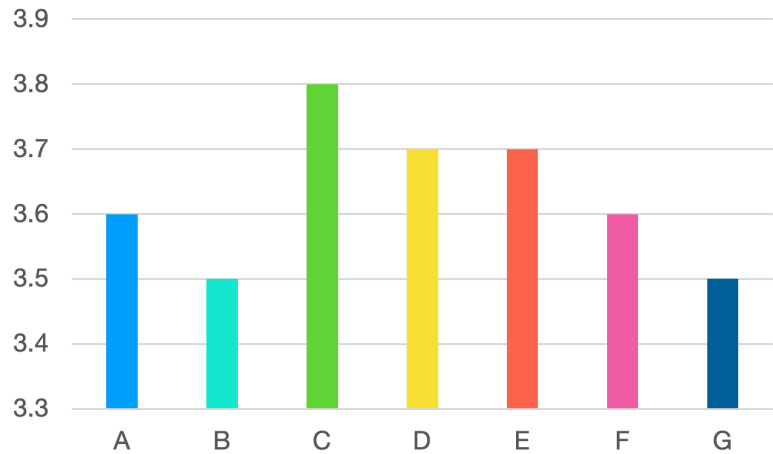


Figure 8: Mean score per LO dimension

important to ensure the data presented was clear, accessible and promoted discussions about barriers and affordances. I took the decision to begin the discussions with the mean scores for each dimension (see Figure 8). This was aimed to invite reflection but also reacquaint participants with the LO model. Many participants were likely to have only encountered the model when completing the survey 5 months earlier.

To shape the main body of the discussion I considered giving the focus group participants the overall top ten scoring items from across the dimensions and the bottom scoring ten items to generate discussion. However, not using the LO model as the framework for the discussions seemed a missed opportunity; an opportunity to further embed the language of systems thinking and the LO model into the discourse of the wider service. Further, to present in this way would not have given participants the opportunity to explore the variation across each dimension. A simple colour coding system was developed to visually represent the variation across each dimension of the LO framework, to use as prompts for discussion in the focus groups. This visual representation used the mean score. As

≥ 4	4.1
	4.0
< 4 but ≥ 3.8	3.9
	3.8
< 3.8 but ≥ 3.7	3.7
< 3.7 but ≥ 3.6	3.6
< 3.6 but ≥ 3.5	3.5
< 3.5 but ≥ 3.4	3.4
< 3.4 but ≥ 3.2	3.3
	3.2
< 3.2 but > 3.0	3.1
	3.0

Table 2: 'Heat map' coding for mean scores

described in detail in chapter 3, although central tendency for individual Likert items would usually be given as a median or mean score, or the data considered using frequency distribution percentages, this did not offer the level of detail needed for these discussions. Table 2 shows the key for the colour coding which would enable participants in the focus groups to see at a glance those items against which we feel we are achieving and those where we feel less confident in each dimension. For ease of discussion we named this the 'heat map' for each dimension (see Appendix 18: Heat map of mean scores).

4.3 Intensive data

Three Focus Groups (FG) were conducted with participants from across the Education Service. The final group mixes for each of the three groups brought together staff from 3 of our 4 service areas from within the Education Service. Bringing together staff who may not ordinarily get a chance to work with one another was an additional priority for the researcher, reflecting the systems thinking and complexity concepts that through non-linear interactions and connections, ideas and learning can emerge. FG1 had full attendance, four participants came to FG2 but only three participants were able to make FG3 on the day. This did impact a little on the breadth of the discussion, however fortunately two of the participants in this group were strong, confident speakers and the group were still able to generate some good reflections and ideas. Each session began with the researcher placing the focus of the session within the context of the ongoing work of the Education Service, the survey they had all been invited to complete in the summer and the research being undertaken. Colleagues were engaged in a process of reflective discussion, which was captured using concept walls generated by the participants using the Mentimeter® platform (see Appendix 19: Mentimeter® data - live concept wall capture) and transcriptions of the full FG discussions.

Within the focus groups all participants were shown the 'heat map' for of the survey results for each dimension. The groups initially discussed the top rated items for each dimensions to identify affordances, we then returned to consider the lowest rated item for each dimension to consider barriers. For the purpose of this data presentation I will first outline the findings, both barriers and affordances, against each of the LO dimensions. Throughout the presentation of FG data the anonymity of participants remains paramount. When quoting participants, no label will be used where possible. However, when quoting a section of conversation the speakers will be labeled A, B, C and so on, to enable the reader to follow the flow of the conversation. Where a statement is attributed to the facilitator in a conversation section, it will be labelled F.

4.3.1 Participant discussion by LO dimension

Dimension A. *Developing a shared vision centred on the learning of all learners*

The mean scores presented to the three focus groups can be seen below in Table 3.

A6. Team action plans and projects are designed with the vision and goals in mind	4
A2. The vision and goals emphasise preparing pupils for their future in a changing world	3.94
A1. We are involved in developing the Education Service's vision and goals	3.76
A3. The vision and goals are inclusive of all pupils	3.74
A5. We are inspired and motivated to bring the vision to life	3.62
A7. Other departments within the council are invited to contribute to the Ed Service's vision and goals	3.52
A10. External partners are invited to help shape the Education Service's vision and goals	3.43
A4. The vision and goals are understood and shared by all staff working in the Education Service	3.43
A8. Pupils are invited to contribute to the Education Service's vision and goals	3.36
A9. Parents / carers are invited to contribute to the Education Service's vision and goals	3.17

Table 3: Dimension A - items by mean score

When discussing what's enabling us to ensure our team plans reflect the vision for the service, participants felt that we communicated a clear vision as an organisation. One participant observed,

It's the structure that we work in, isn't it? Some kind of corporate plan, everything actually dovetails into the corporate plan. It's just the levels that we operate, I think. It enables us to be able to feel confident in giving it a four.

Processes that enabled us to communicate were also identified,

The team meeting is valued, rather than just tagged on...Action plans are discussed and formulated as a team, rather than top down, just given to you. I think we agree as a team.

We see different and hear different workshops happening and conferences and people are involved, and the children seem to be at the heart of it. At X [recent policy launch] they were presenting [the children] this last two years since I've been here. It surprised me in a good way.

When considering what are the barriers to us enabling parents to contribute to our vision as a service, the groups identified a lack of opportunity as key. All three groups suggested that parents aren't asked,

A: *Have they ever been asked?*

B: *No, that's what I'm wondering.*

C: *I'm thinking a three?... Three is high. I'm quite surprised it's high.*

D: *I think people misunderstood and did it from a team level.*

C: *I actually think that's too high. I would have ranked it lower, maybe I did. From my point of view I don't think I've ever seen anyone being asked.*

Colleagues identified that mechanisms for engaging with parents aren't there,

A: *It's communication, isn't it?*

B: *It just needs to be planned and we feel that's got to be done at the next level.*

One colleague noted that

We don't really have a structure to - I mean schools have various ways they connect with parents but we don't then link in to use that to then have parents come to an education thing.

One of the focus groups discussed that there are certain parents that we do engage with, but they are not a representative group and that perhaps our approaches to communicating can alienate some parents,

I think the infrastructure, the sort of model of governors is based around, the kind of environments that those parents would be comfortable with. It's very much based on the rotary club or the charity or the committee, and a lot of the parents who are from less-advantaged backgrounds don't have that background to go into committees. Even when I first came here, they had you taking minutes. It's all a bit formal. The language is formal, and they might not feel...

One of the groups focussed on the skills needed to engage with parents,

I also think it's a skillset that's required, and I'm not too sure how many community-development orientated, sort of, competencies there are to work with the parents. There's a lot of young person-centred practices.

This linked with a further discussion around parents perhaps not feeling confident to be able to participate in discussions about the vision of the LA and needing support to enable them to do so,

A: *I think it's just out of reach. I think parents won't think of this service, they will just think of their school.*

B: *Yes, I'm not sure, as a parent, that I would respond, necessarily, to any request to involve myself in the strategic vision of the Education Service*

The discussion of barriers within one group widened to consider the second lowest ranking item in this dimension; engaging pupils. A member of the focus group had been intrinsic in pupil engagement work across the city and so was concerned that the item had scored so low in the survey results. That colleague was able to identify a raft of work which had taken place. My role at this point was to tease out the issue...

F: *So, what's the problem?*

A: *People don't know about it.*

F: *Yes. So, why don't they?*

A: *I don't know.*

- B: *It's not celebrated, yes.*
 A: *Maybe the process.*

The group identified that colleagues are not always aware of what is going on across the system and they felt that there was a lack of celebrating achievements, such as engaging with our learners, and lack of process for sharing such work was causing this to be the case.

Dimension B. Promoting and supporting continuous professional learning for all staff

For dimension B the groups were all presented with the 'heat map' (see Table 4) and initially were asked to consider what is enabling us to feel so confident about B3.

B3. We are involved in identifying the objectives for our professional learning	3.95
B2. We engage in professional learning to update our knowledge and skills and challenge work practices	3.85
B4. Professional learning is aligned to the Education Service's vision	3.71
B1. The professional learning and development of staff is considered a high priority	3.6
B10. Service users, including pupils, parents / carers and schools are encouraged to give feedback to the Education Service	3.52
B9. Beliefs, mindsets and practices are challenged by professional learning	3.48
B8. We have opportunities to experiment with and practise new skills	3.45
B5. All staff receive sufficient support to help them in a new role (new employee / new role)	3.38
B7. We receive regular feedback to support reflection and improvement	3.29
B6. Mentors / coaches are available to help staff to develop their practice	3.08

Table 4: Dimension B - items by mean score

Colleagues across all three focus groups felt that the Professional Review process in place for the LA is very clear and straight forward. All participants agreed they were active participants in shaping their objectives and their professional development needs and two of the groups focussed on the fact there are clear structures in place to enable us to do so.

- A: *Yes. I think through discussions, we set quite clear objectives with, like, a goal in mind.*
 B: *The systems are there to support that.*

One group was able to identify that the focus given to Professional Reviews over recent years has ensured that we are doing well in this areas, outlining...

I think there's been a big push, in recent years, to improve quality and regularity of our personal reviews and they are very much a forefront and priority of the organisation. Not just education, but X as a whole. There's a huge push every six months, to make sure you hit your compliance rates. Now, typically, the message is about hitting your compliance, but, certainly for our team, I have seen an improvement in the quality.

The discussion about barriers to B6 was interesting as ‘mentors / coaches’ are not something we have built in to our existing structures. This was identified by all three groups as the main barrier,

- A: *I guess maybe factoring it into the establishment. I think the fact that we haven't got time to do it is because it hasn't been factored in to our workloads.*
 B: *It's an afterthought at the moment, isn't it?*

All of the groups identified times at which mentors would be beneficial, such as induction of new staff, changes of role, or even when someone is looking for a new challenge in their role, but all acknowledged that the lack of capacity to provide such support was a resource and structure issue

It's basically a resource issue, isn't it, for both? Because the informal set up of having mentors depends on the individual teams prioritising that and feeling like they've got a capacity for that and coaches are something that we don't have within the service, because there isn't the resource for it.

Dimension C. Fostering team learning and collaboration amongst staff

The focus groups were presented with the ‘heat map’ for dimension C (see Table 5), which showed that this dimension had generated the highest mean scores of all the dimensions.

C4. We treat each other with respect	4.12
C3. We feel comfortable seeking advice from others	4.11
C6. We listen to each other's ideas and opinions	3.95
C5. We are open and honest with each other	3.87
C7. We think through and tackle problems together	3.76
C8. We reflect together on how to learn and improve our practice	3.72
C2. We are encouraged to work together as teams and across teams	3.71
C1. We have opportunities to collaborate and learn from each other	3.66
C9. Conflicts are mediated effectively	3.34

Table 5: Dimension C - items by mean score

When considering what's enabling us to treat each other with respect there was an acknowledgement across the groups that our professionalism, alongside a strong collegial ethos was supporting us to do so. A further affordance to our collaboration and team work was felt to be the move in recent years to a large open plan office...

I think being in the open office...you make more links and then it's easier to have those more incidental conversations with people about things which then help build up that professional knowledge.

And

...because we all work in the same area, it's easy to, kind of, look across your desk and go, "Oh, I need to speak to them," because all of us want what's best for the child. So, sometimes sharing views can help unpick a situation further, or you can get clarity on something.

Colleagues feeling able to approach people and seek support and advice was also identified as a key affordance,

So, you know, if we're not sure of something, we would seek advice from senior managers, even if it's the director, and, to be honest, I've found most of our senior managers have a very open-door policy and will support you

FG3 identified that the regular whole-service meetings had also led them to feel more connected to one another and to the senior leaders.

In discussing what enables us to treat each other with respect and feel comfortable seeking advice from one another, some of the discussions moved towards occasions when that doesn't happen. One discussion highlighted poor ethos from leaders as part of the problem...

- A: *It definitely starts with the leadership, doesn't it, what's the word I'm looking for?*
B: *They have to start at the top, and if they show respect and if they do all of those things then everybody has to do it and I don't know if all the leaders do that.*
C: *Then again some people may be under pressure in a leadership role, they've been given too much or they're stretched and it could be pressure.*
A: *That shouldn't be an excuse, should it, because everyone, like you say, that's really important to get that right because the added value you get is so much better than to seek more in people because your job is more important.*
B: *You do go along the corridors and people just put their heads down, it's almost like there's no good morning, there's no eye contact.*

Within dimension C, the item against which the survey ranked us poorest was the mediation of conflict. One participant's response was "*We're not surprised*". Participants were able to identify that a lack of open communication alongside a hierarchical establishment contributed to this challenge. One participant's experience had led to them feeling,

...that the structure is you can't upset those above you. We can't challenge senior leaders. It's almost like, "What are you doing, talking to that senior leader without da, da, da?" You're thinking for goodness sake, we should be able to just have a conversation, a challenge. Therefore if they're challenged, it's, "Well, you shouldn't have done it." It's very old school as opposed to just being open, "You weren't happy with that, you weren't happy, yes, fine, I take it, sorry." It's almost a level of if you're at a certain stage.

This was echoed by other participants suggesting they had heard comments such as "*You're not paid to do that.*" or "*That's sort of, it's not your pay grade to make those sort of decisions.*"

A further point raised by participants was where colleagues may not wish to identify that they have conflict as they may see it as a failure. The mechanisms for managing conflict were also identified as being a barrier, where some colleagues suggested they felt they were "*outdated*", "*too cumbersome*" and "*too slow*". One participant highlighted that we had invested in an approach to

mediation and conflict management across our schools but we hadn't absorbed those approaches ourselves as an organisation.

Dimension D. Establishing a culture of enquiry, exploration and innovation

Table 6 shows the 'heat map' of mean scores for each of the items in Dimension D shared with the focus group participants.

D2. We are encouraged to take initiative	3.94
D8. We discuss things that have worked as well as those that haven't in order to learn from them	3.87
D5. We engage in enquiry (i.e. pose questions, gather and use evidence to decide how to change practice, and evaluate impact)	3.79
D7. We are open to others questioning our approaches and ideas	3.76
D6. We are open to thinking and doing things differently	3.74
D4. We spend time exploring a problem before taking action	3.66
D9. Learning from new initiatives and innovation is disseminated successfully	3.48
D1. We are encouraged to experiment and innovate	3.47
D3. We are supported when taking calculated risks	3.4

Table 6: Dimension D - items by mean score

They were first asked to consider what enabling us to feel encouraged to take initiative. All three groups identified that relationships play a pivotal role, suggesting

Again, it comes from having that openness and being able to have that relationship with your boss to be able to feel comfortable in suggesting ideas and say what do you think about this, talk to them through it and even if you just said no, there would have been a good valid reason for it.

And

I suppose that comes back to how you work within your team as well, and having the support of the people around you. If you are going to go out and do something, having people around you telling you that, you know, you can do it, and it's that ethos isn't it, of yes, give it a try and what's the worst that can happen?

Good lines of communication and trust with managers were identified as key to feeling encouraged to take the initiative and one participant also raised the issue of personal resilience, suggesting

It's also having the confidence in the person themselves. If someone else doesn't have that confidence and they're getting knocked back they may sit back and be - if you're not having that resilience in yourself, some people say, "I can't be bothered."

Others were able to identify that there are certain roles within the service that have more freedom in terms of taking initiative, but that austerity and statutory duties can limit many colleagues within the service,

F: *So, there's elements of it there within pockets, but it's not...*

A: *... systematically driven, and I think there are a number of reason for that, and I think austerity and resource allocation is putting pressure on people. So, you do the*

statutory duties, etc., etc., and the innovation is then just how do you survive? How do you keep doing what you're doing with less? So, you have to be very measured and systematic about trying to drive innovation over and above that. We might enable it now and again, but I think we could be much more robust about it because I think that's one of the most important things.

Within one of the groups the discussion developed further and considered the importance of recognition, suggesting that if their work is rewarded or celebrated in some way they may be more likely to take the initiative,

- A: *I think sometimes when you're doing it in terms of the initiative, sometimes it can feel, for some people, that it's over and above, and, therefore, recognition of that is really important, I think.*
- B: *That's a really good point.*
- C: *So, celebrating that and, you know, not making it feel that you've done stuff, but actually, you know, some of the people don't do it for whatever reasons and, "Why bother?" but actually, you're celebrating it and you're enabling that through recognition and those sort of things*
- D: *There's no system of recognition of initiatives. There's no reward for it.*

When exploring what the barriers may be for staff not feeling supported to take risks there were a number of ideas generated. Many of the points raised were around relationships and supportive culture; that we need managers to be approachable and open. One of the focus groups suggested that this was an issue with the culture of the service, identifying that our organisations culture is "risk-averse" and, in terms of risk taking and innovation, one colleague stated "*It's not supported. It's not encouraged*". The group went on to discuss that the organisation is process driven and that people can become comfortable within that sort of culture and can even "*...find it difficult to move outside that process in the end*". However, that same group also identified that with austerity and constant changes we have no choice but to innovate and take risks, that, "*We can't just sit still*".

Dimension E. *Embedding systems for collecting and exchanging knowledge and learning*

Dimension E showed the smallest range of all the dimensions, with only 0.39 between the lowest and highest scoring item (see Table 7 overleaf). Focus group participants were again asked to focus on considering the highest and lowest ranking items. Participants felt we had a development plan in place and process for identifying progress towards this. However, some participants also felt that this process wasn't without its challenges and that there was room for improvement to make this a more meaningful and purposeful process. Some participants identified that self-evaluation tools in use and the external pressure for self-assessment, such as from the inspectorate, were positive enablers.

One participant suggested that the development plan,

...gives you an idea of what the expectation is because the most stressful thing in the workforce is to not know what's expected of you and then not knowing if you've got it right or wrong.

E1. We have a development plan based on learning from continuous self-assessment and updated at least once every year	3.79
E2. Structures are in place for regular dialogue and knowledge sharing among staff	3.75
E4. We analyse and use data to improve our practice	3.74
E3. Evidence is collected to measure progress and identify gaps in performance	3.66
E5. We use research evidence to improve / influence our work	3.64
E8. We regularly discuss and evaluate whether actions had the desired impact and change course if necessary	3.64
E6. We analyse examples of good / great practices and failed practices to learn from them	3.62
E7. We have opportunities to learn how to analyse and use data to inform our practice	3.4

Table 7: Dimension E - items by mean score

A further element identified by participants as enabling us to feel confident about our development plan and self-assessment processes, were the annual whole-service events “*When we all meet and feedback things*”.

When asked to consider what might be stopping us from have the opportunities to learn how to analyse and use data, the overarching view was lack of capacity and systems to do so.

Have somebody to get all the data, capacity of somebody to collect all the data and deal with the data.

One participant suggested that when we do get systems in place to enable us in relation to this process, people don't know how to use them because they are not given time to learn. The overarching views of all three groups can be summarised by the statement made by one colleague,

So, sometimes, we've got the data and we don't use it. Sometimes, we don't use it very well. Sometimes, we don't use two sets of data against each other, and drill down, but, again, it's about capacity as well as systems, isn't it?

Dimension F. Learning with and from the external environment and larger system

Table 8 overleaf shows the mean scores presented to the focus groups for each of the seven items in Dimension F .

When considering what is enabling us to collaborate, learn and share knowledge with service users all three groups acknowledged that to do so was core to our role,

Well, because we're education. It's our bread and butter, isn't it?

and

We share and we collaborate with each other, parents and schools. It's part of your role.

F2. We collaborate, learn and share knowledge with service users, including pupils, parents / carers and schools	3.8
F3. We collaborate, learn and share knowledge with social and health services to better respond to pupils' needs	3.66
F5. We collaborate, learn and share knowledge with other external partners	3.64
F7. We are involved in and support school-to-school networks or collaborations	3.59
F1. External opportunities and challenges are monitored continuously to inform our work	3.42
F4. We collaborate, learn and share knowledge with higher education institutions to deepen staff and pupil learning	3.39
F6. External consultation/ engagement to explore different policy options are effective and informative	3.39

Table 8: Dimension F - items by mean score

One of the focus groups raised that our systems for sharing were also enabling, suggesting that the recent introduction of an online platform for engaging with schools was making a significant difference in this area.

When considering the challenges for this dimension, participants were asked to consider both F4 and F6. In response to considering what are the barriers to the service using external consultation or engagement to explore different policy options, there were some mixed responses. Some participants felt that they were not participants in policy decision processes and one participant suggested that it might depend on where you work within the service as to how much you know about policy decisions. One colleague stated,

I think we feel policy options are just handed down.

Participants in one group also highlighted that the statement itself is unclear and this may have influenced the survey responses to it,

I don't actually know what it means in some respects. 'External consultation and engagement to explore different policy options' or effectively. So, I went back to that. So, it's learning from external environment, larger systems. I think it's probably quite technical and clunky, and people go, "Waaah." I probably did that...

In relation to our collaboration with Higher Education (HE) institutions, some participants were able to identify several collaborative partnerships with HE institutions, suggesting

So, I would say that the structures are there, but we're yet to fully see it come to fruition. I think, strategically, with our next vision, it's definitely on the button in terms of that interface.

There was also an acknowledgement that our work with HE institutions is relatively new and so a barrier to this currently is lack of awareness,

- A: *It's just making people out there aware of the things that are...*
 B: *And how we use them.*
 C: *Potentially, and there's more work to be done.*
 B: *How we use them, and about partnership.*
 F: *Yes, how we use those links.*
 B: *The cornerstone is there, and it's about how do we refine it and kick on.*

Dimension G. Modelling and growing learning leadership

The table 9 below shows the 'heat map' for dimension G and that the item achieving the highest

G2. Leaders support staff to take responsibility for their own learning and development	3.79
G5. Staff are given opportunities to participate in decision making and lead on areas of work	3.67
G9. Leaders ensure that all actions are consistent with the service's vision, goals and values	3.62
G1. Leaders value and support innovative solutions	3.55
G3. Leaders celebrate success	3.53
G10. Leaders model effective collaborations with external partners and key stakeholders	3.49
G6. Leaders provide opportunities for service users, including pupils, parents / carers and schools to participate in decision making	3.48
G7. Leaders encourage learning opportunities, irrespective of the final result i.e. learning from mistakes is acceptable	3.47
G4. Leadership is fostered and developed in staff across the service	3.28
G8. Leaders are open to others questioning their beliefs, opinions and ideas	3.24

Table 9: Dimension G - items by mean score

overall mean score of 3.79 was G2. Participants in the focus groups were asked to consider what was enabling us to feel our leaders support staff to take responsibility for their own learning and development. The professional review process was highlighted by all three groups as enabling this, with one participant suggesting

Yes. I mean, that comes through your PPDR as well doesn't it, and you're always encouraged to look what's in the Academy, what training you need, what you feel, and you're given the time to do it as well if you need it.

The Academy is an online platform for identifying available training across the whole local authority. This learning platform was identified by two groups as being some that very much enables us to take responsibility for our own learning,

- A: *I think the Academy is definitely an enabler, isn't it?*
 B: *Oh, yes.*
 A: *It's accessible and it's in one place.*
 C: *You can look there at your leisure to see what you want to do.*

D: *...So, the flexibility of the online learning has been an enabler, and you're right, because if you can't be released to go to things, at least you've got something.*

Although asked to identify the things enabling us to do well against this item, two focus groups also highlighted that the item may have only achieved a higher score because the responsibility is on the individual rather than leadership, with one colleague outlining

It's like that's tough because if you read it, its leaders support staff to take responsibility. So the cynic in me is, the leaders are therefore not responsible. They're going, "You do it and if you haven't done it, it's your fault because you could have done that Academy course which wasn't relevant, but you could have that as an opportunity." That's why that came out top because people are going, "Yes, they want us to do it but I don't feel-" that's kind of what I'm thinking.

Participants were asked what were the barriers to leaders being open to others questioning their beliefs, opinion and ideas. As this was the last item for discussion across all the focus groups, only one group had time to discuss it in detail. However, the discussion was full and several observations were made by participants. Some participants felt that there was an entrenched ethos causing the barrier, whereas others disagreed with the scoring, suggesting that leaders were approachable in such circumstances, as can be seen from this extract,

A: *That's quite low as well, isn't it?*

F: *So, what's, kind of, stopping us from developing that culture of feeling able to challenge senior leaders and question senior leaders?*

B: *It's just entrenched in people, isn't it?*

C: *I don't feel that. I feel that the leaders in our department are quite open to challenge and welcome it.*

D: *Yes, I feel the same. I feel as though I can actually go and speak to anybody.*

C: *I think if I didn't challenge our director on some things, he'd think, "Well, why didn't she ask me that question?" but maybe that's just me.*

One participant acknowledged that people's experience of this must be shaped by their role within the service and suggested,

Yes, I wouldn't have rated them highly, but that's part of my role, you know, is to go up and challenge. So, yes, I was interested in people's views, whether there's a disconnect because it's so easy. Just in that one room, in xx, the disconnect must be massive, and I think we forget about walking in other people's shoes.

Thus identifying hierarchical structure as a potential barrier as well as ethos where one participant highlighted that

I think that comes back to your mutual respect for people as well.

4.4 Six Interconnecting Themes

The thematic analysis outlined in chapter 3 brought together the causal mechanisms identified and discussed by participants under six second-level themes:

- Communication
- Ethos/Relationships
- Leadership
- Opportunities
- Processes/Systems
- Resources

The interlocking and overlapping nature of these six themes can be seen in the concept map (see Appendix 22: Concept map). The findings will now be presented against each of the second level themes, describing the identified causal mechanisms within each theme alongside a brief reflection of how they interact with elements identified against the other 5 themes.

4.4.1 Communication

The second level theme of *Communication* arose throughout the three FG discussions through the identified barriers and affordances to us developing LO characteristics. Figure 9 shows how concepts interconnected across the first level themes and how these interlinked with all of the other 5 second level themes arising. The causal mechanisms identified by participants as enabling us to

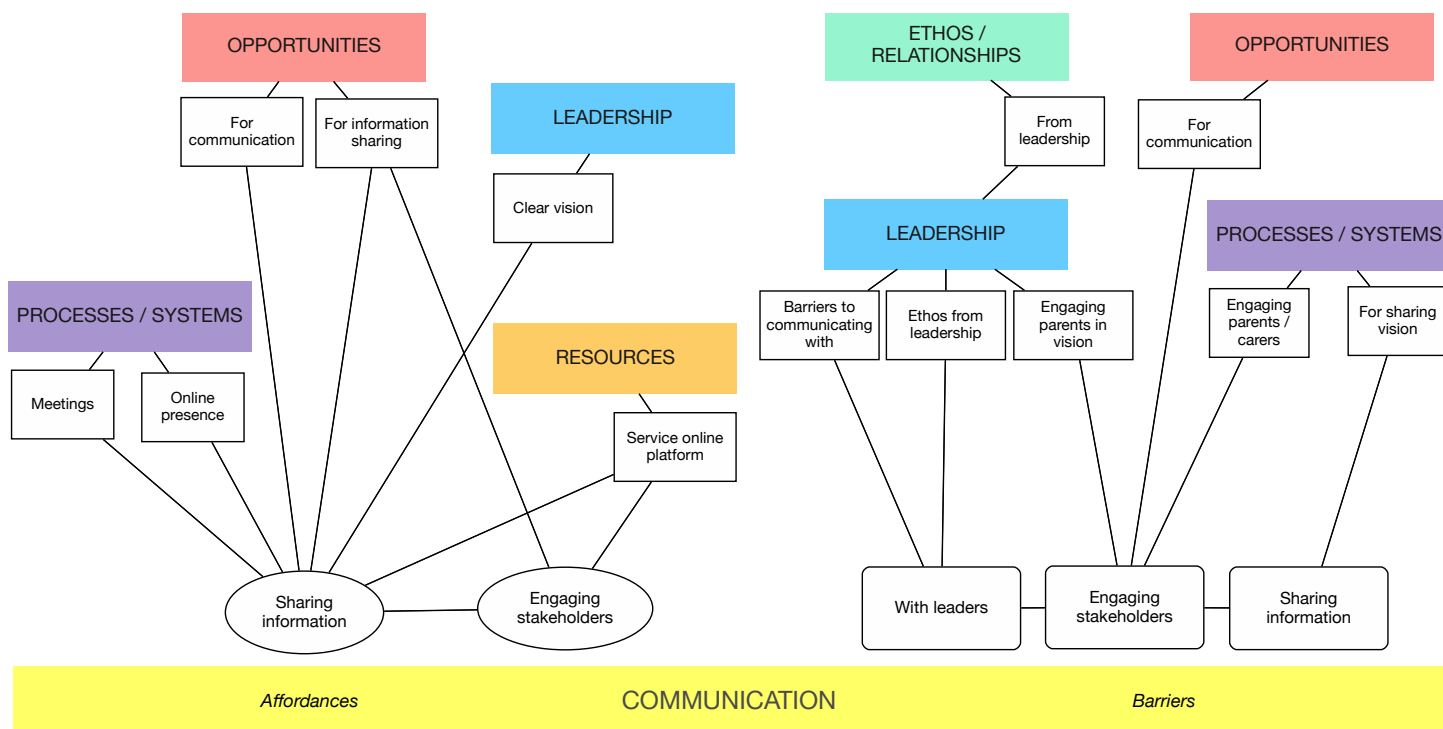


Figure 9: *Communication* concept map of overlapping themes

develop LO characteristics were grouped under *sharing information* and *engaging stakeholders*. Participants identified that the way in which we engage with our stakeholders enables us to shape the education vision and learn with and from our stakeholders. Colleagues felt that hosting

stakeholder events enables us to increase their involvement and that we are doing particularly well more recently with engaging children and young people...

We see different and hear different workshops and conferences and people involved and the children seem to be at the heart of it.

And

I think we're engaging with pupils better than we used to, and they're certainly featuring in all our planning now.

The ideas generated around sharing information largely identified processes, opportunities and resources for doing so. Having mechanisms for *sharing information* was identified as enabling us to develop a shared vision, a culture of enquiry, team learning and collaboration, and learning with and from the larger system. Mechanisms such as whole service meetings and the service's online platform for information and training were identified along with regular team meetings, which was the most commonly raised mechanism. One participant suggested,

There's value to it, I feel. The team meeting is valued, rather than just tagged on, "We've got to make our time up, so we'll have a team meeting at the end of the day." Action plans are discussed and formulated as a team, rather than top down, just given to you.

The causal mechanisms identified as creating barriers to our developing characteristics of a LO came through discussions of two dimensions; creating shared vision and learning with and from the wider system. *Sharing information* arose again as a theme here. Participants raised that poor communication across the service was leading to a lack of awareness of things that are happening, for example projects were discussed that had involved various stakeholders, such as HEIs and children and young people, that other representatives from different areas of the service were not aware of. Participants commented that there are "*Barriers in communication, particularly with senior leaders*" within the service. Poor communication with senior leaders more broadly was raised as creating barriers with suggestions such as,

Senior leaders need to meet teams more regularly so that all staff know who they are and understand their roles.

And

Leaders engaging with staff (not just those at Engagement events)

Engaging stakeholders also arose as a theme of identified barriers within *Communication*. The discussions centred around parents/carers; that we lack a mechanism or system for engaging parents and this is a causal mechanisms for parents/carers not being engaged in shaping the vision of the service.

4.4.2 Ethos/Relationships

A number of causal mechanisms as both barriers and affordances were raised which were grouped under the second level theme of Ethos/Relationships (see figure 10). Causal mechanisms of trust, respect, positive working relationships and a culture of collaboration were identified by participants

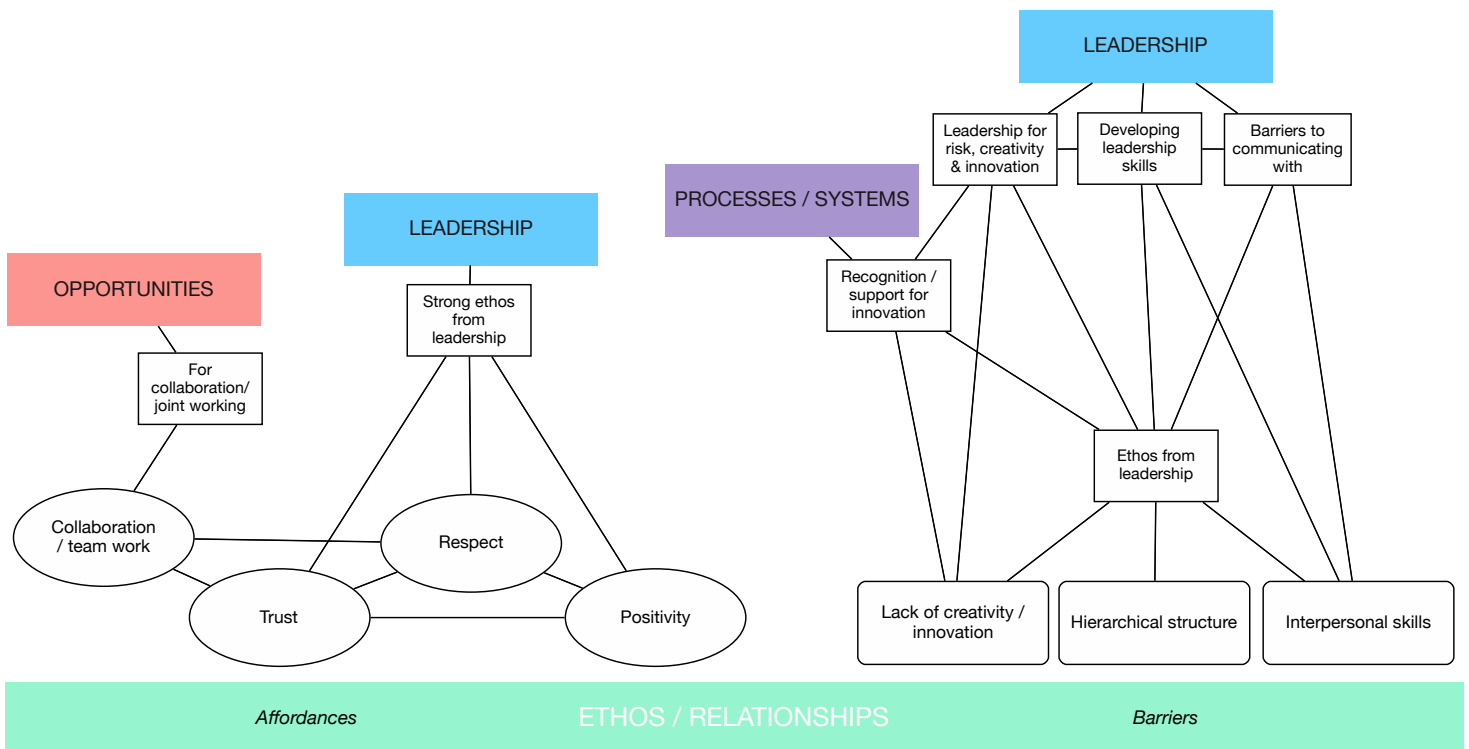


Figure 10: *Ethos / relationships* concept map of overlapping themes

as key affordances for collaboration and team learning, staff feeling encouraged to take initiative and supporting our sharing of information and collaborative learning with service users. When exploring causal mechanisms for what enables us to treat each other with respect and feel comfortable seeking advice from one another, some colleagues suggested that the general ethos of the service enabled us to do so,

I do feel that there's a real expectation that colleagues help each other. So, if I need some advice, we all talk to each other, and that's really nice and it's got better over the last three or four years, I'd say.

And

So, I think there is an ethos there of helping each other and supporting each other in the work that we do.

Other participants identified that from their perspective, this culture comes from leaders,

I think there's a respectful culture from leadership as well.

And

So, you know, if we're not sure of something, we would seek advice from senior managers, even if it's the director, and, to be honest, I've found most of our senior managers have a very open-door policy and will support you...

The causal mechanisms of a lack of creativity / innovation, the hierarchical structure of the service and poor interpersonal skills, including those of senior leaders, were identified as barriers to us developing good conflict mediation, staff feeling encouraged and supported to innovate and take risks, and leaders being open to others challenging their beliefs and ideas. Figure 9 shows the complexity of the way the barriers within this theme overlap with those identified under the second level theme of Leadership. Two of the three focus groups identified that the general ethos from leadership influenced how staff feel, the culture of the organisation and the work that colleagues feel supported to engage with.

4.4.3 Leadership

Several themes arose from the focus group discussions which were grouped under the second level theme of *Leadership*. *Leadership* was the only second level theme where the interconnecting second level themes were the same for both the affordances and the barriers, as can be seen from figure 11. Causal mechanisms of a strong ethos from leaders, good accountability processes being

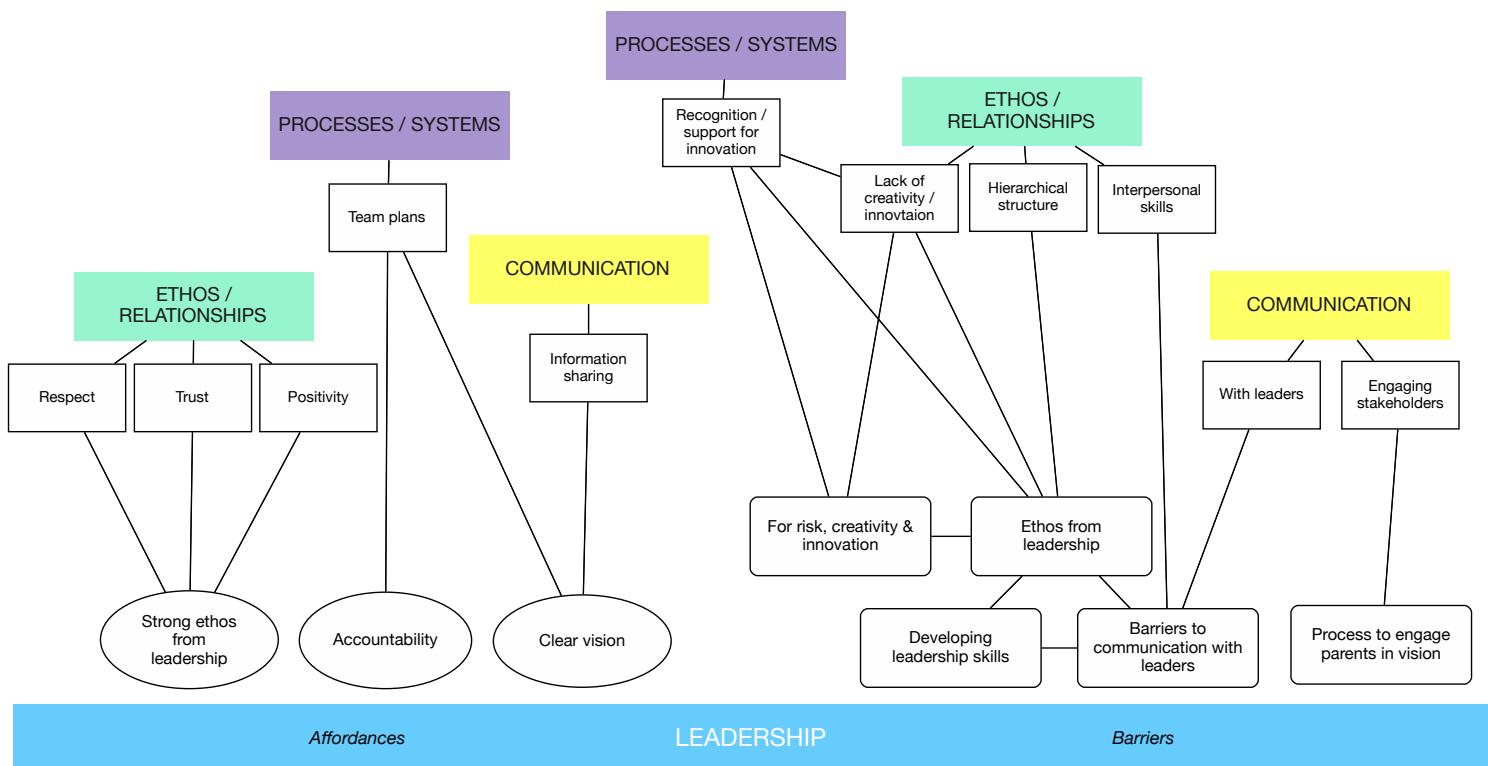


Figure 11: *Leadership* concept map of overlapping themes

in place and a clear vision communicated service-wide, were identified as enabling us to develop team plans in line with a shared vision, treat each other with respect and feel comfortable seeking advice from one another, feeling encouraged to take initiative and staff being able to take responsibility for their own professional learning.

Five first-level themes representing barriers identified by participants, were grouped under the second level theme of *Leadership*. They included a lack of leadership for engaging with parents, barriers to communicating with leaders, a need to develop leadership skills for some senior leaders, poor ethos from some senior leaders and a lack of leadership for taking risks, creativity and innovation. These represent identified causal mechanisms which participants felt were barriers to us developing a shared vision, better managing conflicts, staff feeling supported to innovate and take risks, and leaders being open to others challenging their beliefs and ideas.

4.4.4 Opportunities

The second level theme of *Opportunities* brought together causal mechanisms under the first-level themes of opportunities for collaboration/teamwork, communication and personal/professional development (see figure 12). These were identified by participants as affordances to our being able to identify clear objectives for our professional development, treating one another with respect,

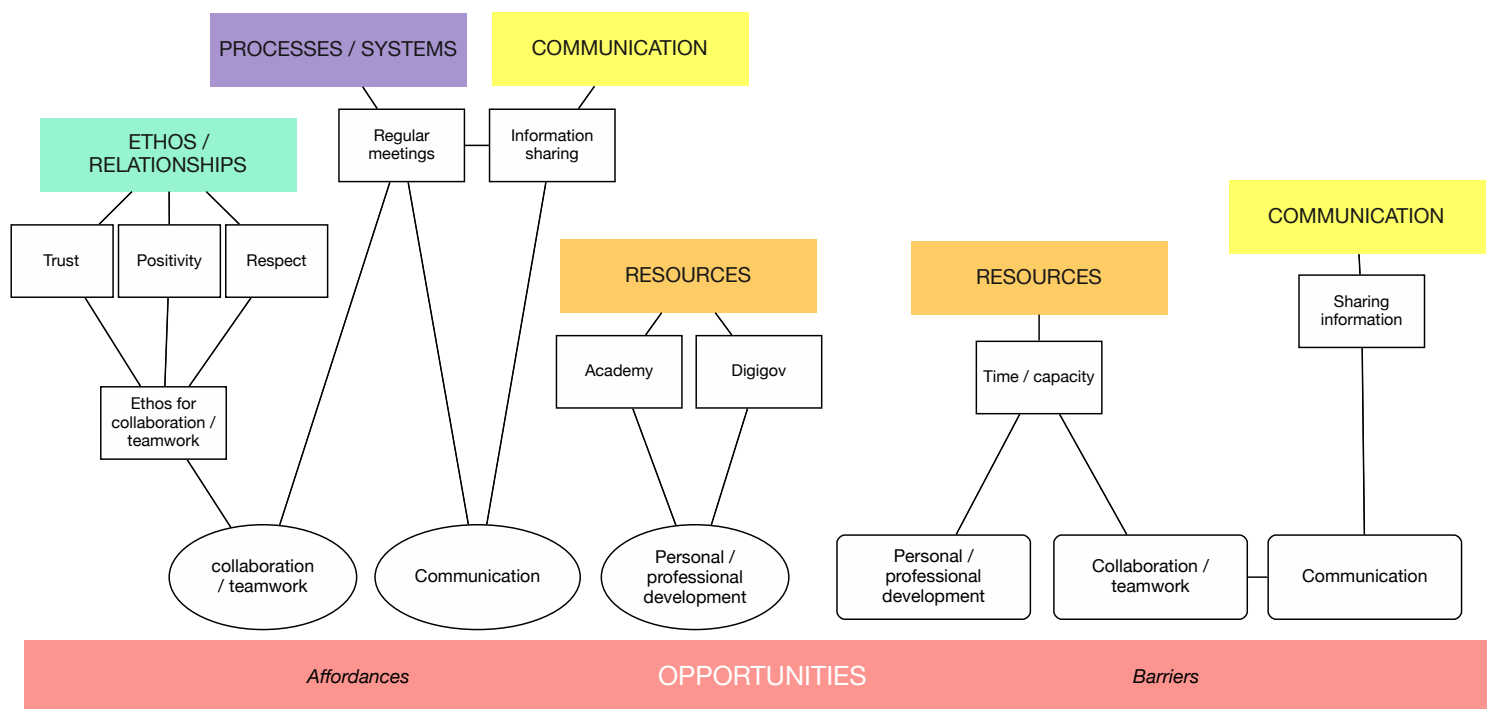


Figure 12: *Opportunities* concept map of overlapping themes

feeling able to approach one another for support and feeling encouraged to take initiative. These highlighted entities with actualised causal power such as our location, our online systems for professional reviews and training and the collective moral purpose of those working in the service. The causal mechanisms identified by participants as barriers that were thematically grouped under *Opportunities*, were the same themes as those identified as affordances; opportunities for collaboration/teamwork, communication and personal/professional development. Here participants were highlighting barriers such as the impact of location on opportunities to communicate and collaborate,

If you're not in the building, you don't stand a chance really, because you don't come into contact with those people.

and a lack of opportunity to work collaboratively within the service,

Opportunities to work with different teams in a meaningful way to build relationships across teams.

and with the wider system,

Time to meet and learn from other organisations e.g. health or other authorities.

The lack of opportunity identified as a barrier to professional development was highlighted as time and capacity to access the training or support needed.

4.4.5 Processes/Systems

The causal mechanisms brought together under the second level theme of *Processes/Systems* cover a broad range of elements, from practical processes and systems such as team plans, regular meetings and Digigov (our online HR platform), to systemic approaches such as recognition and support for innovation. As can be seen in figure 13, the overlaps and interconnections between

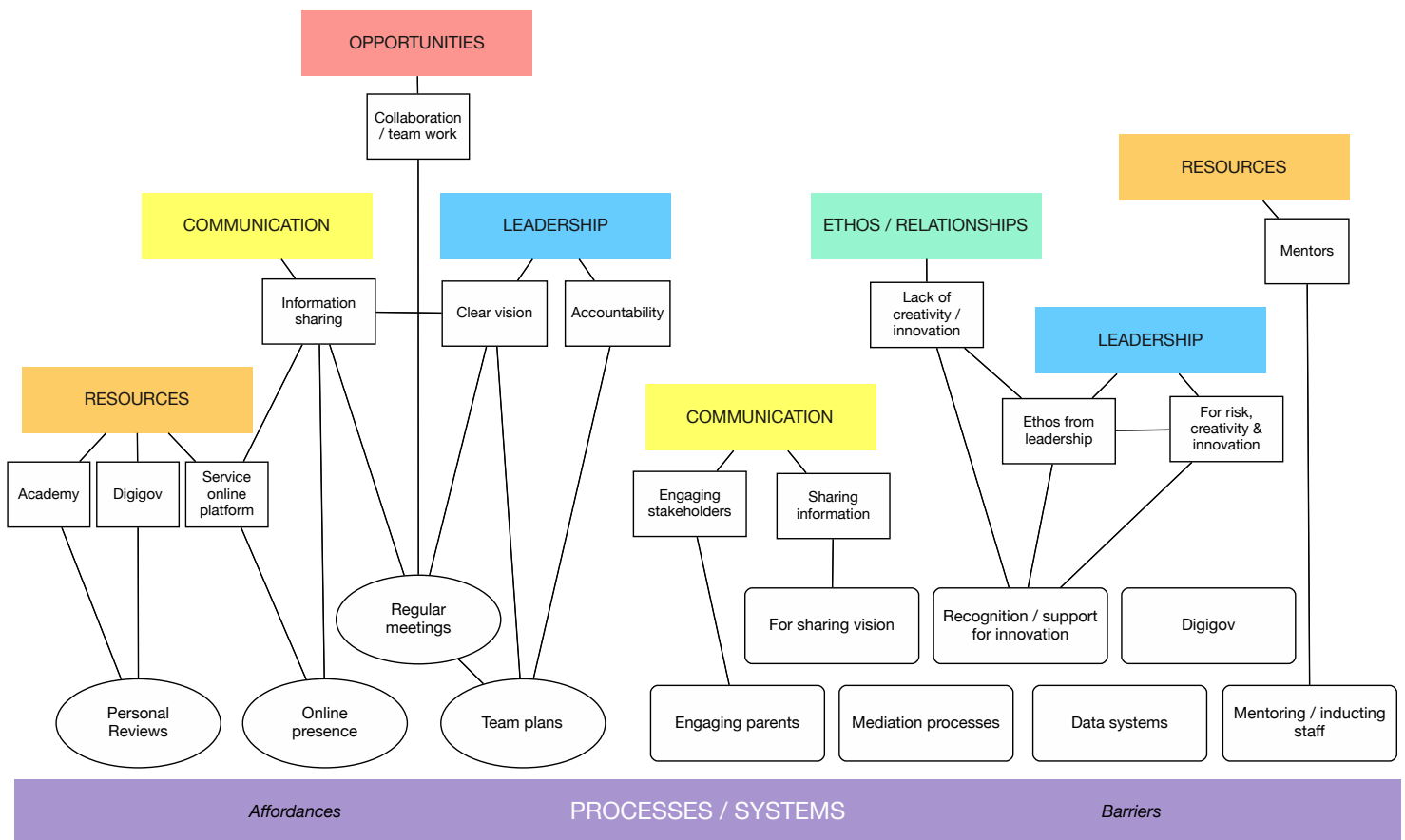


Figure 13: *Processes / Systems* concept map of overlapping themes

these causal mechanisms and those within all 5 of the other secondary levels themes is extensive.

Regular meetings within our teams and across the wider service were identified by two of the focus groups as causal mechanisms enabling the service to develop team plans with clear understanding

of the services' vision. Team plans were also highlighted as affordances for enabling learning through continuous cycles of self-assessment against the plans and broader development plan. Participants identified our processes for professional reviews as causal mechanisms enabling us to work towards a shared vision, enabling us to identify clear objectives, take responsibility for our own development and feeling confident to take initiative on pieces of work.

Despite our Professional Review processes being generally identified as a strength for the service, and one participant feeling that this was in part due to DigiGov, our online HR platform, other participants felt that this platform is a barrier to the process as its not intuitive and wastes a lot of people's time. For all other barriers identified under the theme of *Processes/Systems* it was the lack of a process or system that was being raised by participants. The lack of a process for engaging with parents was felt to be an underlying causal mechanism for our poor performance in parents helping to shape the vision for the service and our engagement with parents as stakeholders when learning with and from the wider system. As the focus of the LO model is learning, many of the discussions were linked to our creativity, innovation and risk taking. A number of participants identified that a lack of process for recognising and supporting innovation and risk taking is a barrier, suggesting

But there's no reward for that innovation. You can do it if you like, and risk your arse and that's fine, but, officially, there's absolutely no recognition for any of us, for anyone.

Barriers to us being supported to take risks, innovate and learn from our mistakes were also linked to the themes of leadership and the ethos of the service, as it was felt that leaders hold the causal power in order for these elements to develop.

4.4.6 Resources

A small number of causal mechanisms identified by participants were brought together under the theme of *Resources* (see figure 14 overleaf). Identified as affordances were Academy, an online staff training portal, DigiGov, the online HR system and our public facing online presence, which is a relatively recent development. These were identified as causal mechanisms enabling us to engage purposefully with our professional reviews and personal development, and to share information with the wider system and stakeholders. When asked to consider barriers to us providing mentors/coaches to support staff in their development, participants identified a number of causal mechanisms; that there are no mentors, that this is not built into the system, and that a lack of time and funding is a barrier to us changing this.

The issue of funding was also raised regarding access to training and to creativity and innovation, with suggests such as,

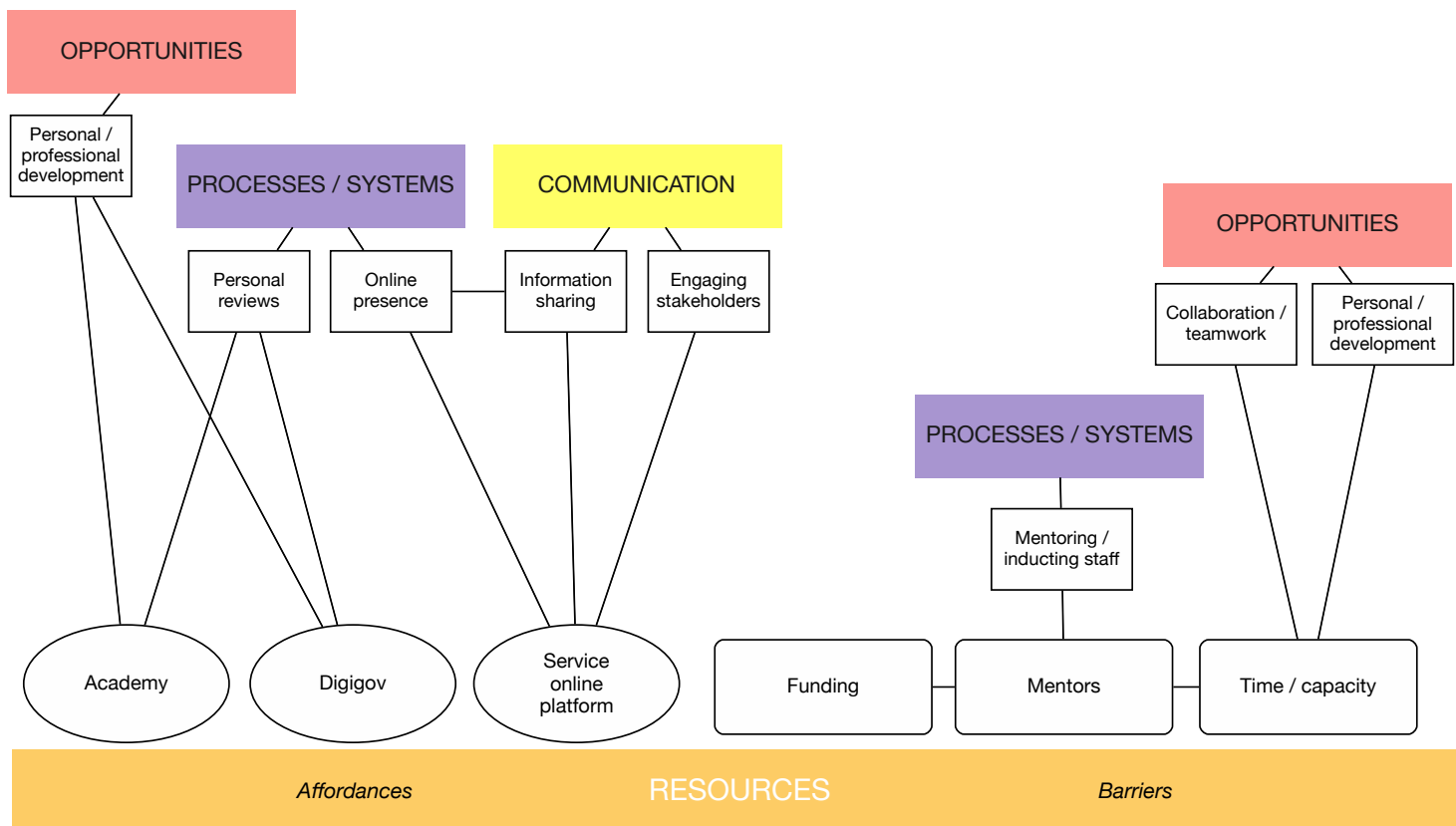


Figure 14: Resources concept map of overlapping themes

Austerity has driven elements of creativity and innovation out of public services

Time and capacity were added to the Menti® concept walls quite frequently, but came up in discussions less. The service not having the capacity to gather and process data was identified as a barrier to us being able learn and develop as a service. When discussing sharing information, some participants raised the they like to hear about the staff wellbeing initiatives happening in the service, even though they never have the time to participate,

- A: *What do you think of the website? We get lots of emails telling us what's going on. Nice things, and about wellbeing, and we haven't got time to go to them, but it's nice to know there are things going on, that they value their staff.*
- B: *Yes, there's a lot going on, isn't there? There's a bigger thing going on.*
- C: *Yes, and that's important. Not just work, work, work. It's nice. I like to hear the cake stalls are down in the main hall. I think, "I can't go to it," but I like to know that that's going on.*

Lack of time/capacity was also highlighted by participants as a barrier to our ability to take initiative and one participant noted,

So, you've got that horrendous pressure all the time, and it prevents us from actually doing things that, long-term, will be far better. I don't know if that's been your experience. We can't plan anything.

4.5 A solution focussed workforce

When presented with the LO items against which we were performing less well and asked to consider potential barriers, participants often steered towards suggesting solutions. I will discuss my views as to the significance of this in detail in the next chapter, but for now let me summarise some of the suggested solutions that arose, as they too have implications in later reflections.

4.5.1 Communication with leaders

Through a number of discussions in two of the FGs, suggestions were made as to how we could improve communication and relationships with our leaders. There were suggestions of increased time for communication to occur such as,

Senior leaders need to meet teams more regularly so that all staff know who they are and understand their roles.

And clarity,

...maybe they could make time and tell us what they're doing.

One participant made a particularly practical suggestion about the end-of-year whole service meeting, which takes place in July, suggestion it be earlier in that summer term, stating

I almost think that's too late in the year because we're all thinking about our holidays at that point.

Training for leaders was also raised in two of the FGs, with the suggestion that perhaps some of the barriers arise from a lack of leadership skills, with one participant suggesting,

I think that people do need some management skills when they're moved into different roles, maybe they have the technical background but maybe they don't have the managerial skills and they're put into roles without that support. They don't have it naturally. It's okay for someone who has it naturally.

4.5.2 Engaging parents/carers

Although there was a general agreement across both the survey results and FG discussions that as a service we have a clear, shared vision, the lack of parent/carer engagement in creating that vision was strongly noted. All three FGs offered suggestions for ways in which we could work towards better engagement with parents. Most of the suggestions involved using our links through schools to reach our parents/carers such as,

So we could almost like network out through the schools to the forums they use.

With clarity that this should be something owned by the LA,

We should make it very open, yes, through the schools, but if there was something that we did that was the local authority. We've asked them through the schools but we want you to connect with us...

With one participant even suggesting the LO model could be used to engage parents/carers,

That would be an excellent way of forging systems at the school level as well, by saying, "Actually, we'll hold a parent event, run by the parent governor, to discuss these sorts of headlines [the LO characteristics]" and actually, it would be a great way of getting parents to look at the school from a strategic, educational point of view...

A final suggestion made by one participant was to suggest we consider carefully the approach we take to engaging with parents, to ensure that this is accessible to all, stating,

I think the infrastructure, the, sort of, model of governors is based around the kind of environments that those parents would be comfortable with. It's very much based on the rotary club or the charity or the committee, and a lot of the parents who are from less-advantaged backgrounds don't have that background to go into committees. Even when I first came here, they had you taking minutes. It's all a bit formal. The language is formal, and they might not feel...

4.5.3 Risk taking, innovation and learning from mistakes

Across all three FGs there was discussion about the lack of ethos and support for taking risks, innovating and feeling able to learn from our mistakes. As outlined in the commentary above, there were many identified barriers to this, including lack of support from leaders, a risk averse culture and lack of processes in place. Throughout the discussions there was a general agreement that celebrating and sharing innovative work would be one possible solution as,

I think sometimes when you're doing it in terms of the initiative, sometimes it can feel, for some people, that it's over and above, and, therefore, recognition of that is really important, I think.

And,

So, celebrating that...you're celebrating it and you're enabling that through recognition

Participants identified that building in processes and opportunities for innovation and risk taking to be encouraged would be beneficial,

Yes, but if that process encouraged you to do something slightly different through a different lens, in a supporting way

With one participant highlighting that that having processes in place that push innovative work occasionally is not the same as building an ethos in which risk taking and innovation is part of how we operate,

So, you have to be very measured and systematic about trying to drive innovation over and above that. We might enable it now and again, but I think we could be much more robust about it because I think that's one of the most important things.

Two final solutions offered by participants in this area were very practical in nature and included having more time for team meetings to be able to move new pieces of work forward and the suggestion that,

It'd be actually really good to have an innovation group and call it 'I Dare You' or something.

4.5.4 Mentors

All three focus groups were able to identify that the key barrier to LO item B6 “*Mentors/coaches are available to help staff to develop their practice*” is not having that built in to our structure as a service. All participants felt that this would be something worth investing; giving new staff, or staff in new roles, time to familiarise themselves with their role and the processes and systems of the service. Participants highlighted that as members of teams, finding additional “ad hoc” time to support new colleagues was challenging and often led to a need for repeat modelling being needed, which is an inefficient use of staff time. One participant suggested it would be beneficial to have,

a mentoring structure to be included for at least the first three months in a new role

Another participant highlighted that the leaders of the service should ensure that mentoring support is in place. It was recognised that the resource implications of introducing mentors would be significant, but that the overall benefits would likely outweigh that cost,

It only works, as being someone who did induction, you only remember 10% of what you hear or 20% but at least you know there's a system there or a go to person that isn't bound down with their own role. I don't know, that's aspirational. It's like having a product champion or having a champion within the area for a little while.

4.5.5 Time for systems thinking

Through having the opportunity to discuss the LO model and reflect on our own service area, two suggestions were made which link directly to developing systems thinking. During a discussion in one FG about our collaboration and innovation, one participant suggested,

It would be good to have one database of all the areas that the councils are collaborating in and what projects they're doing.

And reflecting on the process of being invited to participate in the FG discussions, some participants highlighted how useful they have found them, with one stating,

You know what's nice when you do things like this, you start focussing on the positives and you realise what great colleagues and people we have. It's very easy to only remember the bits that aren't right or the bits that are frustrating.

4.6 Summary

Through this chapter I have presented the research findings from two cycles of data collection. The data from the extensive method of data collection, the survey, have been examined from the perspective of how it was used to shape the FG sessions. Heatmaps showing the mean scores for each item across all seven dimensions were created from the survey data, to provide a stimulus for the FG discussions and reflections. The data generated from the FGs, the intensive data collection method, were presented in detail; the barriers and affordances identified by participants as aiding or hindering our development of the LO characteristics. The FG data was explored initially against the LO dimensions, in keeping with the approach to the discussions and the LO framework. This was followed by an outline of the six second-level themes which emerged from a thematic analysis of the data; Communication, Ethos/Relationships, Leadership, Opportunities, Processes/Systems and Resources. In the next chapter I will consider answers to the research questions, through a deeper reflection of the findings alongside the theoretical constructs of complexity theory, systems theory and the LO framework.

5. DISCUSSION

5.1 Introduction

The purpose of this critical realist (CR) action research (AR) was to explore how our Tier 2 Education Service could engage with the Learning Organisation (LO) framework, to develop systems thinking and improve its ability to learn and change. In chapter 2 I explored the increasing influence of systems theory in education policy in Wales and was able to link this to the growing call for education systems to be able to engage with, and adapt to, change. I examined the development of the LO model as a framework underpinned by systems theory, and outlined some limitations to its adaptation and application to the field of education so far. In focussing on schools alone, I have suggested that the model's application contradicts its underpinning systems theory. Further, many of the LO frameworks developed within education have been managerial, applied to schools as a measure; a tick box exercise against which we can gauge a school's success at *achieving* LO status (Marsick and Watkins 2003; Yang, Watkins, and Marsick 2004; Kools and Stoll 2016b). Chapter 2 outlined how this research, shaped by a CR meta-theory, aimed to engage with the LO model in the way in which I believe it was originally intended; as framework to generate reflection and learning (Senge 1990; Garratt 1999); to look beyond the observable characteristics of a LO and consider causality.

Through chapter 3 a CR AR methodology was developed to engage colleagues in two, iterative cycles of research using "critical methodological pluralism" through the application of extensive and intensive methods of data collection (Danermark et al. 2002: 150) to answer the following research questions (RQs),

1. *Can the WG's SLO framework be adapted to engage colleagues in reflecting upon our own practice as a Tier 2 organisation?*
2. *What are the barriers to the organisation developing characteristics of a LO?*
3. *What are the affordances to the organisation developing characteristics of a LO?*
4. *How can we develop towards becoming a LO to improve our practice?*

The findings were presented in chapter 4, exploring the data against the LO framework and through a presentation of themes arising from the thematic analysis.

This chapter will begin by offering answers to RQ one, examining the adaptation and application of the LO framework through both the extensive and intensive methods of data collection. In considering the use of the LO framework for our Tier 2 organisation as a means of connecting and engaging colleagues in reflection, I will return to key the concepts of systems thinking, non-linear connections and emergence developed in chapters 2 and 3. I will examine the use of the model as a framework for deep reflection, enabling colleagues to consider barriers and affordances to us

developing characteristics of a LO. Through chapter 4 we were able to go some way to answering RQs two and three by outlining the focus group (FG) findings and exploring the six overarching themes that emerged. In this chapter I will present a summary of the six second-level themes that arose, highlighting the key barriers and affordances identified by participants and the interconnected nature of the themes arising. To consider RQ 4 there needs to be a deeper reflection.

Chapter 3 explored how “socially engaged” AR aligns with the CR paradigm (Danermark et al. 2002; Ram et al. 2014). Throughout this research precedence was given to the role of agency. Through engaging colleagues in a process of reflection, to seek to understand those barriers and affordances to us developing the characteristics of a LO, the research engaged with the precepts of complexity theory and critical realism; acknowledging holism, the stratified nature of reality, relationships between entities and emergence (Byrne 1998; Danermark et al. 2002; Trenholm and Ferlie 2013; Byrne and Callaghan 2014). The CR epistemological stance of this research has informed my interpretation of theory, the importance placed on theory throughout the research and drives my ambition to understand the research findings at a theoretical level. As highlighted by Danermark et al. (2002) for CR research theorising is “an integral part of the research process” (Danermark et al. 2002: 204). Through the remainder of this chapter I will move between the concrete and the abstract (Danermark et al. 2002; Eastwood, Jalaludin, and Kemp 2014) considering the implications of the research findings for my organisation, as well as presenting meta-findings; linking research findings to the key ideas and themes about complex systems that came out of chapter 2. Three themes will be explored in answer to RQ four, “*How can we develop towards becoming a LO to improve our practice?*” linking the findings to the key theoretical constructs of non-linear connections, leadership and organisational learning.

5.2 Applying the LO framework for reflection

In considering research question one “*Can the WG’s SLO framework be adapted to engage colleagues in reflecting upon our own practice as a Tier 2 organisation?*” I reflect on three phases of the frameworks application to this research; its adaptation for a Tier 2 organisation, its application as the extensive data collection method and its role within the intensive data collection cycle. The *Schools as Learning Organisations* (SLO) survey adapted for this research was based on the Welsh Government’s (WG) SLO framework (2017c). Through the process of adapting the survey to align with our Tier 2 organisation, the framework had already begun to serve as a tool to generate reflection. Collaborating with leaders from across the service, we necessarily reflected on the meaning, language and purpose of each item in the framework and how it may be applied to our organisation. Applying the adapted survey as an extensive data collection method introduced the framework, its purpose and its language to colleagues from across the Education Service. For

many colleagues who engaged with the survey this was their first introduction to the SLO model, which had been introduced across our schools in 2017. Not only did the survey provide a framework for engaging colleagues from across the Education Service in a process of reflection, but having done so may have influenced colleagues to participate in the FG sessions. When colleagues were approached across the service to participate in the FG sessions, it seems likely that having some knowledge of the framework increased people's confidence and willingness to engage.

Using the survey data to structure the FG discussions generated curiosity. Presenting FG participants with the LO framework alone, without survey results, is unlikely to have stimulated as much discussion. Participants expressed interest in the whole-service view of our performance against the LO items and in being able to offer their own commentary. At times they offered a conflicting view to the survey scores, with statements such as "*I'm surprised that some are so high*" and "*I think the only reason it isn't a four is sheer capacity*". Participants also offered some reflections that highlighted limitations of the survey, for instance

- A: *Three is high. I'm quite surprised it's high.*
B: *I think people misunderstood and did it from a team level.*

The question of misunderstanding the survey will be discussed in more detail in chapter 6.

A key aim of this research was to begin to develop systems thinking within our organisation. I would suggest that using the LO framework and survey data to structure discussions in the FG sessions achieved this goal. The LO framework introduced colleagues to a range of concepts that are underpinned by systems thinking and engaging them in discussion and reflection, which considered our organisation as a whole, necessitated they take a systems view (Senge 1990). Further, bringing together colleagues from across the service, who ordinarily may not get an opportunity to work together, created non-linear connections from which ideas and reflections emerged that would not otherwise have been generated (Cilliers 2011). There were some limitations to the use of the LO survey, which will be discussed in detail in chapter 6. However, using the LO model to survey the views of the organisation on a large scale, in order to stimulate discussion on a smaller scale with a far greater depth of reflection, in my view, generated rich data.

5.3 The barriers and affordances

As outlined in chapter 3, this "socially engaged" CR AR (Ram et al. 2014) gave participants the opportunity to jointly construct an understanding of causality (Smith and Elger 2014), bringing them together to discuss and reflect upon elements of the LO framework, to consider answers to RQs 2 and 3; "*What are the barriers to the organisation developing characteristics of a LO?*" and "*What are the affordances to the organisation developing characteristics of a LO?*" To do so necessitated

participants themselves apply abduction (albeit implicitly), seeking to describe causation from observed events (O'Mahoney and Vincent 2014). Chapter 4 offered a detailed presentation of the data generated by the FGs, outlining the barriers and affordances identified by the groups. The six interconnecting themes which arose as capturing causality were Leadership, Relationships/Ethos, Communication, Processes/Systems, Opportunities and Resources. The concept maps, also presented in chapter 4, outlined those barriers and affordances captured under each of the six second-level themes and their interconnected nature within and across all six themes. As a reminder for the reader I will present a brief overview of the barriers and affordances identified by participants, in preparation for the deeper, retroductive exploration of the findings and theoretical frameworks to follow.

The second-level theme of **Communication** identifies barriers to communicating with leaders, poor ethos from leaders, a lack of opportunity and systems for stakeholder engagement (in particular parents/carers) and a lack of systems for sharing information across the organisation. Barriers brought together under the theme of **Ethos/Relationships** identify a lack of process and leadership for supporting creativity, innovation and risk taking, and the hierarchical leadership structure and poor ethos from leaders creating barriers to communication. The lack of process and support for innovation, risk taking and creativity arose again within the second-level theme of **Leadership**, alongside poor ethos from leaders creating a communication barrier, and a lack of process to communicate with parents/carers. Those barriers captured under the theme of **Opportunities** included a lack time/capacity for personal/professional development, lack of time/capacity for collaboration and teamwork, and lack of opportunity for the sharing of information across the service. A wide range of barriers were brought together under the second-level theme of **Processes/Systems**, including specific data and HR systems used within the organisation, the absence of a system to engage with parents/carers, a lack of process for sharing information across the organisation, poor mediation processes and a scarcity of recognition/support for innovation, creativity and taking risks. The final second-level theme identified barriers that exemplify insufficient **Resources**. These included time/capacity for personal/professional development and collaboration/teamwork, no provision for mentors for new staff and insufficient funding to support the points raised.

Affordances captured under the second-level theme of **Communication**, included opportunities and resources that enable us to engage with stakeholders, opportunities and processes for sharing information and the clear vision created by leaders. The second-level theme of **Ethos/Relationships** identifies that an ethos of trust, respect and positivity, linked to a strong ethos from leaders, enables collaborative/joint work across the organisation. Those affordances outlined under **Leadership** include a strong ethos enabling trust, positivity and respect, strong accountability processes and a clear established vision being communicated across the service. Affordances

brought together under the theme of **Opportunities** include processes and an ethos that enables collaboration/teamwork, opportunities for good communication through regular team meetings and information sharing, and opportunities for personal/professional development. The affordances making up the second-level theme of **Processes/Systems** capture our personal review processes, our online presence supporting information sharing, our team plans linked to the service's clear vision and our regular meetings that support collaboration. The final theme of **Resources** identifies our online platform and its links to information sharing and stakeholder engagement, our HR online platform and its links to strong personal review processes and professional development opportunities, and our online training platform which also supports our opportunities professional development.

5.4 Meta-findings

The outline above goes some way to answering research questions two and three. However, the role of the CR researcher is to construct a deeper understanding of those causal mechanisms through the application of retroduction, bringing together the abstractions of participants with an understanding of the key theoretical constructs; interpenetrating layers, non-linear connections and emergence (Danermark et al. 2002; O'Mahoney and Vincent 2014). It will be recalled from chapter 4 that the FG participants reflected upon their own experiences and observations in relation to the LO model, and were asked to reflect more deeply to consider what might be stopping us from doing better or what might be enabling us to do well. Although participants were not aware of their discussions and reflections from a CR perspective, what they were identifying were causal mechanisms, reflecting both their experiences and observations (their empirical reality) and, through collective reflection, those entities which they feel have causal power (Danermark et al. 2002; O'Mahoney and Vincent 2014). As explored in chapter 2, *entities* are all "parts of the universe" whose interactions have the power to create events, whether we observe them or not, and whose nature "cannot be studied or understood in isolation from their environment" (O'Mahoney and Vincent 2014: 6). Those entities identified by participants included service areas, leaders, teams, the people that make up those teams, policies, structures and systems. All of these are entities with causal powers within our complex organisation. The importance of being able to consider the entities that make up our organisation is that doing so helps us to better understand emergence and therefore our organisation's ability to change (O'Mahoney and Vincent 2014: 7). In bringing together the research findings presented in chapter 4 with the frameworks of complexity theory, systems theory and the LO outlined in chapter 2, I will now present a deeper reflection; building on those identified barriers and affordances and the themes arising, to outline what I consider to be this research's meta-findings. It should be noted however that the ideas I will explore here as meta-findings are, as has been recurring theme throughout this research, complex and interconnected.

5.4.1 The importance of connection

As discussed in chapter 2, establishing connections is essential for complex organisations to change and learn. The complexity theory and systems theory literature shows us that fundamental to such emergence is the non-linearity of connections across the interpenetrating systems, or layers, within complex organisations (Cilliers 2011; Gerrits and Verweij 2013; Byrne and Callaghan 2014). This understanding was reflected in the research design, through the creation of opportunities for colleagues to come together from across the organisation to engage in collaborative reflection and begin to develop systems thinking. Colleagues from all positions (including the service's leadership structure) were encouraged to participate in the FGs. That none of the Education Management Team or Senior Leaders came forward to participate will be considered in more detail later in this section within a wider reflection of hierarchy and leadership, as well as within the consideration of the research's limitations in chapter 6. Through chapter 2 it was established that the theoretical constructs of emergence through non-linear connections also underpins the LO framework (Senge 1990; Fullan 1999; Eppel 2009b). This thinking is evident throughout the LO model adopted by the Welsh Government (WG), and dominates Dimension C. *Promoting team learning and collaboration among all staff*, Dimension E. *Embedding systems for collecting and exchanging knowledge for learning*, and Dimension F. *Learning with and from the external environment and larger system*. The research findings affirmed the importance of connection, evident through the survey data, participant responses to each dimension of the LO model and the interconnecting themes that emerged from the FG data. I will explore each of these key elements.

It was evident from the survey results and from the discussions within the FGs presented in chapter 4 that the Education Service in many ways has a strong culture of connection. The survey results showed that colleagues felt we were performing best against Dimension C. *Fostering team learning and collaboration amongst staff*. Participants identified that there is a positive ethos of trust and respect amongst colleagues, one which supports collaborative working, and a clear shared vision for the service which enables staff to feel connected to a wider purpose. *Communication and collaboration*, key aspects of connection, feature as affordances across all six of the second-level themes arising from the data presented in chapter 4 and summarised above. Participants in the FGs identified mechanisms that support connection across the service as including the positive ethos amongst colleagues, our physical location in terms of sharing an office, whole service events and our established shared vision. In the language of CR, individuals, relationships, processes, structures and leadership are all entities with causal power to enable connection across the organisation.

The experiences reflected upon by participants as exemplifying poor connections across the organisation included elements such as feeling unable to speak to senior leaders, being unaware of the work being undertaken by colleagues across the service and a lack of engagement with wider

stakeholders. Looking beneath these experiences participants reflected that the barriers to us developing better connections included the interpersonal skills of other colleagues, and particularly of leaders, the lack of systems and opportunities to engage with stakeholders and lack of systems for sharing information across the service. Looking more closely at an example, it will be recalled from chapter 4 that our connections with wider stakeholders was a topic which inspired much discussion and reflection. The barriers and affordances identified by participants were present across four of the six second-level themes arising from the data; Processes/Systems, Communication, Leadership and Resources. Participants agreed with the survey data that engaging with parents/carers is an area in which we need to improve as an organisation. They identified that the *systems* to enable us to engage with these service users aren't in place, but expressed that in their view the power to change this sits with leaders in the service. From a CR perspective it could be suggested then that leaders possess the causal powers to improve our engagement with the wider system, and to develop the systems and processes to do so, but that power has not been exercised or actualised in terms of parent/carer engagement. Or perhaps leaders may feel that they *have* created opportunities and systems to engage with wider service users, but that this exercised power has not resulted in actualised engagement in a way that enables service users to fully participate in shaping the service vision.

As might be expected, the lived experiences of the participants were nuanced and diverse and this could be seen within the presentation of data in chapter 4. These differences often highlighted each participant's place within the structure, indicating that the hierarchical structure of the organisation influences our ability to connect and communicate. For example, colleagues in more senior positions were more positive about communication and connections with leaders the those in positions further removed from senior leaders within the structure. This was echoed in the Observatory of Public Sector Innovation's (OPSI) blog post (Santos 12th Dec 2019) capturing the Welsh Government (WG) Education Directorate's journey towards becoming a LO. Through their work they identified six main barriers to the Directorate developing as a LO, one of which captured "The desire of people to feel empowered to contribute, regardless of their position in the organisation" (Santos 12th Dec 2019). In the language of CR, the barriers within our own organisation identify the actualised causal powers of the organisation's structure; that the *structure* of the organisation has causal power which can be experienced by those within the organisation as a barrier to connection.

In summary, reflecting upon the importance of non-linear connections brings together key concepts from complexity theory, systems theory and the LO literature. If we are committed to developing systems thinking and working towards becoming a LO we must embrace non-linear connection and collaboration across the service and wider system. It draws me back to the limitations of applying this LO model to each "Tier" of the education system in isolation, which in itself could potentially limit

the connections made across the whole system, and the ideas and learning that could be generated from such connections. Despite being the organisation who developed and promoted the Schools as Learning Organisations (SLO) model introduced in Wales (OECD 2016), the OECD have also recognised the limitations of developing the model at each “Tier” stating

“...it is not in the spirit of the model to have three, independently functioning tiers (even if individual organisations in each tier are embodying the dimensions of the Learning Organisation).”

(Santos 12th Dec 2019)

Considering specifically the need for *non-linear* connections within our own organisation, the findings from this research suggest that one of our greatest challenges is the traditional hierarchical leadership structure. The challenges of hierarchy to developing as a LO has been explored in literature within the fields of business and health (see Mills and Friesen 1992; Stewart 2001; Houchin and Maclean 2005; Eisler 2015) and through those reviewing the LO literature (see Garratt 1999; Santa 2015). There are elements of the LO framework that may challenge those in leadership positions; such as non-linear connections, leadership fostered throughout the organisation, transparency, leaders encouraging risk-taking (see Mills and Friesen 1992; Stewart 2001; Houchin and Maclean 2005; Eisler 2015). This may account for the lack of leadership presence within the FG sessions; that leaders were reluctant to discuss these elements with the wider service. Additionally, reflecting on the WG Education Directorate’s journey, Santos (12th Dec 2019) suggests that the “power of inertia is stronger than the capacity or desire to innovate” in public sector organisations. That we simply prefer to stick to things as they have always been. The LO model does ask us to think completely differently about the way we operate; to become an organisation that is “organic, networked, decentralised, flat, team-based, informal, de-layered” (Santa 2015: 248). This, for me, highlights the importance of leaders being on-board and supporting the organisation to change and learn; the need for leadership for learning.

5.4.2 Leadership for learning

The importance of leadership in enabling an organisation to develop as a LO was explored through the systems theory and LO literature in chapter 2 (Fullan 2005a; Hopkins 2007; Hopkins and Higham 2007; Senge 2015; OECD 2018a). Within the WG LO model, one of the dimensions is specifically dedicated to leadership (Dimension G. *Modelling and growing learning leadership*) and the items within this dimension link to all of the other dimensions within the model. For example, “G9. Leaders ensure that all actions are consistent with the service’s vision, goals and values” links directly to Dimension A. *Developing a shared vision centred on the learning of all learners* and “G10. Leaders model effective collaborations with external partners and key stakeholders” links directly to Dimension F. *Learning with and from the external environment and larger system*. It’s not surprising then that leadership was raised in the FG discussions against each of the dimensions, as either being a barrier or an affordance to us developing LO characteristics, and as such it arose as one of

the six second-level themes from the findings presented in chapter 4. In the language of CR, this highlighted that leaders have significant causal power to enable the organisation to develop characteristics of a LO. The affordances identified by participants as linking directly to leadership included establishing a strong positive ethos amongst staff, developing good accountability processes and establishing a clear vision across the service. Where leadership was identified as creating barriers to our developing as a LO, the elements were more complex and interlinked (see appendix 22: concept map).

In moving the organisation towards developing characteristics of the LO, leadership and the exercised and actualised causal power of our leaders, is essential. The close links between the second-level theme of Ethos/Relationships across the organisation and “ethos *from* leadership” as a first level theme, can be seen in the Concept Map (see appendix 22) and underpins several strands of the LO model. As previously highlighted, some participants suggested that they find leaders very approachable and open to being questioned, but others indicated that poor ethos and communication from leaders negatively influences the ethos of the whole service. Some participants discussed being fearful to upset those in leadership positions, or feeling restricted by their position in the structure. The findings presented in chapter 4 identified that participants’ place in the organisation’s structure influenced how able they feel to communicate openly and honestly with leaders, how engaged they are in policy development and their access to information about work going on across the organisation. As highlighted in section 5.4.1, this suggests that the hierarchical structure of the organisation has causal power, as well as the individual leaders. The importance of this causality in terms of leadership for learning is that, for those who felt restricted by leaders and leadership, they suggested that there is a lack of support and encouragement for innovation and risk taking, they don’t feel able to make mistakes and feel that leaders don’t share success stories. The sharing of success stories links to an earlier recommendation for the organisation to improve its mechanisms for sharing information about work/projects/achievements, but the implication of not feeling supported to take risks, innovate or lead is that, without these qualities, we will be unable to move forward as a LO.

That emergence requires a degree of unpredictability was explored in chapter 2 (Mason 2009b; Gerrits and Verweij 2013) and underpins the LO model’s call for organisations to develop an ethos in which colleagues feel supported to innovate, to lead and to take risks (Senge 1990; Mills and Friesen 1992). Organisations need to feel comfortable with the unpredictable, the unknown, the new and, therefore, with change if they are going to truly engage with the LO model. In chapter 4 I drew the reader’s attention to observations made by participants in one FG who suggested a link between austerity, innovation and risk taking. The discussion focussed on the long-term impact of austerity on our public sector organisation as resulting in an ever-decreasing workforce, with ever-decreasing budgets, which has necessitated a focus on essential service delivery. They reflected

that this context had restricted opportunities to work differently, to innovate and take risks; suggesting that we simply can't afford to take risks with such limited time and resource. However, within this discussion participants also highlighted that the very same context of austerity has *required* us to constantly change and shift what we do and how we do it; that in order to continue to offer a service which can meet the changing needs of its services users, with less resource through which to deliver it, we are required to innovate. This highlights that a key challenge for leaders is leading organisations through a landscape of constant change, whilst under significant pressures in terms of resource. I would suggest this offers an explanation for some leaders' reluctance to encourage risk-taking and why learning from mistakes is not part of our modus-operandi. Leaders likely feel that we cannot afford to get things wrong. However, if leaders are truly on board with developing systems thinking and developing as a LO, we must become organisation that supports risk taking, otherwise any innovation will be limited by a fear of failure. This brings us to the final meta-theory I wish to explore; developing our ability to learn as an organisation.

5.4.3 “Developing towards” - an organisation that learns to learn

Throughout this chapter I have reflected on the research findings presented in chapter 4, alongside a theoretical understanding of the LO framework, complexity theory and systems theory outlined in chapter 2, to offer answers to the final research question; “*How can we **develop towards** becoming a LO to improve our practice?*” In my experience within a professional context, a traditional approach to addressing this question would involve the organisation selecting a few of our lowest scoring items (or quick wins) from the LO survey around which to develop practice; re-measuring our performance against the survey at a later date. This was a criticism I raised in chapter 2 and again earlier in this chapter; that a common interpretation of the LO model appears to be as measure against which we can judge current practice (Fullan 1993; Silins, Zarins, and Mulford 1998; Watkins and Marsick 1999; Silins and Mulford 2002; Kools and Stoll 2016b), rather than something to support the system to develop its ability to learn. Engaging with the model as a measure, a tick list of how well you have achieved LO status is, in my view, extremely limited. A CR understanding of the nested and stratified nature of reality, alongside the recognition of the Education Service as a complex organisation, suggests that such an approach would fail to make long term changes (Ram et al. 2014). It would engage only at the level of the empirical, taking the form of what Porter and Shortfall refer to as ‘egalitarian incrementalism’ (Porter & Shortfall 2009 in Ram et al. 2014); merging the views of all actors without acknowledging their differing experiences, the causal structures or seeking to uncover causality. Through applying a CR methodological framework this research has been able to focus a lens on causal mechanisms; on the barriers and facilitators that are impacting on our ability to develop towards becoming a LO. It has engaged colleagues in a collaborative process of reflection and learning; drawing their attention to the wider system, their contribution to that system and therefore has begun to develop systems thinking (Senge 1990; Fullan 2005a). I would suggest that applying a CR perspective, whilst engaging with the complexity theory and LO theoretical frameworks, has enabled us to begin to engage with the

LO model in the way it was originally intended; as a vision with which we can continuously engage in order to learn and develop as an organisation (Garratt 1999; Senge 2010).

The ability to learn as an organisation is a central tenet of the LO model. The items in each dimension are reflective of those features we hope to see in a complex organisation able to learn; characteristics such as interconnecting layers, non-linear connections, opportunities to innovate, to lead, and an ethos of support and encouragement where colleagues aren't afraid of trying and failing. There is some debate in the literature as to whether the term "deutero learning" (Schon 1975; West 1994) or "meta-learning" (Davies and Nutley 2000; Visser 2007) is the appropriate term to refer to organisations learning to learn. However, what is not debated in the LO literature is the importance of them doing so (Schon 1975; West 1994; Davies and Nutley 2000; Thomas and Allen 2006; Visser 2007). By committing to becoming a LO the Education Service has committed to learning to learn; to developing our practices, structures and ethos to support the organisation's meta-learning. In chapter 4, section 4.5, I presented a summary of the solutions offered by participants during the FG discussions. Colleagues, at times, found it challenging to focus on barriers. Their instinct was to think creatively and to look for solutions. I would suggest that such approaches arise, in part, from the context of long-term austerity, as discussed in section 5.4.2. It is my experience that this solution-focussed approach is ingrained in our organisation and is a learning skill to be proud of and encouraged. However, there is also value in coming together to consider potential barriers to our own development and learning; the challenge may be that this requires a new language of learning and the leadership to support it.

I would suggest that the Education Service, and the education system as a whole, invest in developing structures, processes and approaches to encourage and enable learning to take place. In the previous section I raised the need for the organisation to develop structures and processes to encourage innovation and risk taking. However, what I propose here is a much larger and overarching concept of learning to learn. An organisation that encourages and values innovation, creativity and risk taking requires leadership for learning, alongside a culture and ethos that supports it to happen (Kools and Stoll 2016b). Establishing a clear and collectively held vision of what we are trying to achieve is of key importance to maintain focus and inspire continued collective learning (Yang, Watkins, and Marsick 2004; Senge 2010). As has been highlighted through the survey and FG discussions, as an organisation we excel (comparatively) at developing a clear shared vision. I would suggest that this could be a good starting point for the service; developing a shared vision that embeds within it systems thinking and learning to learn, and highlights those key areas for improvement as outlined above and in chapter 4. Learning has to be embedded throughout the system, through internal and external connections, and learning collaboratively is key (Senge 2010). If the Education Service remains committed to engaging with the LO model, we should consider investing in developing a learning culture; one in which agents are empowered to

innovate and are supported to make mistakes. Leadership throughout the organisation must model learning and support a learning culture to grow. The reflections of colleagues through this research, alongside publications from the field of business (Mills and Friesen 1992; Stewart 2001; Eisler 2015; Santa 2015), suggests that the current traditional hierarchical structure of the service may limit our ability to develop these characteristics. Again, if the Education Service remains committed, it may be beneficial for them to give further thought to the leadership structure and its implications for our developing as a LO.

5.5 Summary

Shaped by a CR meta-theory, this research has applied an adapted version of the WG's LO model to a Tier 2 organisation in education, using the model as a framework for collaborative reflection. Through a process of reflection and abductive reasoning, research participants identified causality to our developing characteristics of a LO. The barriers and affordances they identified, outlined in chapter 4 and explored in greater depth throughout this chapter, represent causal mechanisms that exist within our complex organisation. With knowledge of these causal mechanisms we can, as individuals and as an organisation, begin to change them (Ram et al. 2014). Throughout this chapter I have explored the research findings using an understanding of emergence, non-linear connections and leadership, developed from the complexity and systems theory conceptual frameworks explored in chapter 2. Through retroductive reasoning I have moved between the concrete and the abstract, offering wider theoretical reflections using the language of CR to support our developing understanding of causality in a complex organisation, alongside an exploration of three key meta-findings; the importance of connection, leadership for learning and "developing towards" - an organisation that learns to learn.

Within the final chapter I will present a summary of the key findings and arguments from this research and outline key recommendations for our organisation. I will reflect on the overall approach taken to the research, identifying key strengths and limitations, followed by a reflection of the empirical and methodological contributions to knowledge. The chapter will conclude with suggestions for further research.

6. CONCLUSION

6.1 Introduction

The research findings presented in chapter 4 were explored in the previous chapter using the theoretical constructs of emergence, non-linear connections and leadership, arising from the review of the complexity and systems theory literature in chapter 2. Through applying retroductive reasoning three meta-findings emerged, which outlined how the learning organisation (LO) model can be considered using the complexity and systems theory frameworks, and the potential implications for our Tier 2 organisation. Within the final chapter of this doctoral research I will begin by outlining the key findings and perspectives from this critical realist (CR) action research (AR), including some practical recommendations for our organisation. Reflecting upon the overall approach taken to the research I will explore what I consider to be its methodological and empirical contributions to knowledge, as well as the strengths and limitations of the methods used. From here I will present suggestions for opportunities for further research and end with some closing remarks.

6.2 Summary of key findings

The focus at the outset of this study was how we could engage as an organisation in systems thinking, to improve our ability to change and learn. Within the current policy context in Wales, the SLO model has been introduced to support schools to manage the significant raft of reforms currently being rolled-out; to better equip them to “have the capacity to adapt more quickly and explore new approaches” (Government 2017a: 12). Since its introduction the OECD, the organisation behind the SLO model, have reviewed its implementation in schools through a survey reaching representatives from only 12% of schools in Wales and semi-structured interviews with 80 school staff (OECD 2018b). Despite the limitations of this review, the Welsh Government felt able to assure schools that this provided “...a significant evidence base supporting the schools as learning organisations work over time” (Government 2018b). The following year the OECD went on to acknowledge that its application to just one part of the whole system *has* been a limitation and they called for other parts of the system to engage with the model (Santos 12th Dec 2019). This research has provided an independent investigation into the application of the model within the context of a Tier 2 organisation. The insights provided through this research are of key importance to the wider roll-out and application of the LO model across the whole education system in Wales. Through this research I have been able to offer a valuable insight into the policy context into which this model has been introduced in Wales, as well as some clear reflections about the limitations of its application thus far.

It is apparent from the LO and systems thinking literature that the model has been narrowly applied and that this will likely undermine its impact within education in Wales unless, as suggested by Egan

et al. (Egan et al. 2018), the Welsh Government can offer some clarity and guidance as to how all Tiers of the system can engage with the model to improve practice. This research provides an approach which can support all parts of the education system to engage with the model in a way that can generate clear insights into how LO practice can be developed. The SLO model, in its original form, continues to be referenced in policy documentation and school self-evaluations. This suggests that it remains high on the agenda for schools but, from my experience working across schools, is not impacting on practice in the way in which it was intended.

To my knowledge no other work has been done to reframe the SLO model as a system-wide model, or to support all parts of the system to embrace the underlying principles of systems thinking. Allowing the model to sit within the separate parts of the system as a managerial check-list of performance could “breed conformity, cynicism and the very opposite of the goal to support a new kind of professional responsibility” (Egan et al. 2018: 14). By contrast, this research has offered one way to approach the principles of the LO which could be applied across the education system; applied in a way which promotes active engagement with the model. In this study, an approach is modelled which engages practitioners in a process of collaborative reflection to consider causality. This is significant because it not only offers a way to engage practitioners with the LO model which embodies its key principles of reflection, collaboration and learning, but also supports them to develop a deeper understanding of the model and their organisation; offering a stronger platform for change.

By applying a CR AR framework the research aimed to answer the following research questions,

1. *Can the WG's SLO framework be adapted to engage colleagues in reflecting upon our own practice as a Tier 2 organisation?*
2. *What are the barriers to the organisation developing characteristics of a LO?*
3. *What are the affordances to the organisation developing characteristics of a LO?*
4. *How can we develop towards becoming a LO to improve our practice?*

In chapter 5 I explored the adaptation and application of the WG SLO survey, which was based on the SLO framework, for use in our Tier 2 organisation. The survey was adapted for the context of our Tier 2 Education Service and used to engage colleagues in a process of reflection, considering our practice as an organisation. Through the task of adapting the model leaders engaged in a process of reflection and, I would suggest, applied systems thinking. Using the model to survey the views of the organisation on a large scale, introduced the concepts and language of the LO model to the wider organisation, as well as inviting colleagues to consider the LO items and reflect on the overall nature of our organisation. Again, I believe that this afforded colleagues the opportunity to begin to develop systems thinking. Using the survey data to frame the focus group discussions stimulated the curiosity of participants. Through the application of the CR AR framework developed

in chapter 3, the focus groups (FG) engaged participants in a process of collaborative reflection and enabled them to look beneath the LO characteristics set out in the model, to consider causality.

The barriers and affordances identified by participants were presented in detail in chapter 4. A thematic analysis of the data brought the barriers and affordances together under six themes of Leadership, Relationships/Ethos, Communication, Processes/Systems, Opportunities and Resources. The causal mechanisms discussed under each theme significantly overlapped, shown in the concept maps presented in chapter 4 (see figures 8-13); a summary of which can be found in chapter 5, section 5.3. Participants identified that individuals, relationships, processes, structures and leadership are all entities with causal power to enable connection, and support learning and leadership across our organisation. Through chapter 5 I offered a deeper retroductive analysis, bringing together the causal mechanisms identified by participants with the key theoretical constructs of interpenetrating layers, non-linear connections and emergence (Danermark et al. 2002; O'Mahoney and Vincent 2014). Three meta-findings were explored in chapter 5, bringing together the findings and theory to highlight elements fundamental to our developing as a LO; the importance of connection, leadership for learning and developing as an organisation that learns to learn. Throughout chapter 5 suggestions and recommendations were made for the Education Service going forward; moving us back from the abstract to the concrete (Danermark et al. 2002). I will now summarise those recommendations and, alongside the participant suggested solutions presented in chapter 4, offer some practical illustrations of how these might look in practice.

6.2.1 Recommendations for practice

The Education Service would benefit from continuing to develop non-linear connections across the whole organisation but also across the wider education *system*. When considering ways in which we can develop non-linear connections, a good place to begin is acknowledging the existing strengths within our organisation, which include,

- the positive ethos of trust and respect amongst colleagues
- a strong culture of collaborative working across the service
- our clear shared vision which enables colleagues to feel connected to the wider purpose of the service

Recommendations arising from this research to enable the Education Service to further develop non-linear connections include,

- improving mechanisms for sharing information about work/projects/achievements
 - A practical example could be in holding a central information point for all staff so they can browse current partnerships and projects and express and interest in becoming involved.*
- improving mechanisms for engaging with parents/carers in shaping the service's vision
 - Practical suggestions include reaching out to parents/carers through our schools, more informal opportunities to discuss the Education Service's goals with parents/carers, and an*

interactive online portal where we present our key goals and ask for feedback; this would avoid the need for face-to-face for those parents where this is not possible or not desirable.

- promoting professional development through collaborative projects/work wherever possible

The importance of leaders and leadership for developing systems thinking and, more specifically, characteristics of a LO has been established throughout the research. Building on existing strengths identified through the research, leaders should continue to,

- support a positive ethos of trust and respect amongst staff
- promote good accountability processes
- create a clear shared vision for the service

Recommendations for the Education Service in terms of further developing leadership for learning include,

- developing a more positive and open ethos from leaders

This could include being more present with wider teams, holding more regular meetings with wider service staff and considering the professional development pathways for leadership skills.

- promoting and developing opportunities and systems that foster leadership across the service
- developing leadership which promotes an ethos of leaders being open to others questioning their ideas, opinions and beliefs
- considering the impact of the hierarchical structure of the service on our ability to move forward as a LO

Learning is an obvious central tenet of the LO framework, but this research has shown that developing meta-learning, that is systems through which we learn to learn, is key. Taking this work forward for our organisation, we can begin by building on the strengths that already exist within the service, which include,

- a solution focussed workforce
- a workforce that has demonstrated innovation, through the need to adapt to change in the face of austerity
- an organisation that has a clear shared vision

Recommendations as to how we could develop our organisation's meta-learning include,

- embedding the LO concepts in to our vision for the service
- developing structures and processes to support innovation and risk taking

This could include regular systems for celebrating innovative work, learning workshops where we consider things that have worked and are open and reflective about things that haven't.

- developing a mentor role within the service structure

6.3 Strengths and Limitations

I will begin this section with an outline of what I think are the two most significant strengths of this research; the empirical contribution to knowledge and methodological contribution to knowledge. This will be followed by some strengths and limitations of the methods applied within this CR AR.

6.3.1 Empirical contribution: *Moving to a systems view*

As highlighted through chapter 2, and again in chapter 5, a focus on schools dominates the literature on LOs in the field of education (Hayes et al. 2004; Silins and Mulford 2004; Kools and Stoll 2016b; OECD 2016; Harris and Jones 2018). As a model underpinned by systems theory and a systems view of learning and managing change, this narrow application, in my view, is limited. Using my search strategies to review the literature, I could find no other research which considers the LO model in any other part of the education *system*. This research, in empirical terms, took an original stance of adapting and applying a SLO model to a Tier 2 organisation: a local authority Education Service. Through the collaborative and iterative research process adopted throughout this study, we have developed an exciting model for a second tier organisation; not only in terms of the model itself, but also in the way it was applied to the organisation. The findings from the study offer an insight into the barriers and facilitators that may be influencing our ability to develop characteristics of a LO. This approach to considering the LO model through a CR lens has offered a unique view of the framework and the context in which the research has taken place.

6.3.2 Methodological contribution: CR AR in education

The CR AR framework developed for this research enabled us to engage with the LO model in the way in which it was originally intended; as a model to be 'generative' (Senge in Fulmer and Keys 1998: 35). CR AR is an emerging methodological approach but, to my knowledge, it is yet to be applied in the field of education. This research brought together complexity theory and CR and developed a framework for CR AR in a professional context. As discussed in chapter 5, it allowed the research to move away from the traditional approach of using the LO model as a measure (Fullan 1993; Silins, Zarins, and Mulford 1998; Watkins and Marsick 1999; Silins and Mulford 2002; Kools and Stoll 2016b), and focussed the lens on causality and the importance of collaboratively constructing our understanding of causal mechanisms (Danermark et al. 2002; Ram et al. 2014). A CR methodological framework recognises the richness of non-linear connections and emergence and is a theoretical approach often associated with emancipation; enabling groups to consider existing power struggles (Ram et al. 2014). Considering the LO model in a professional context, it was necessary to recognise that a model largely developed around leadership and change, would throw up reflections, and potentially questions, around power; elements that may challenge the current leadership framework.

Applying a CR AR framework also enabled the research to address what Van de Ven calls the "dual hurdles of relevance and rigor" (Van de Ven 2007: 34); bringing together changes to our

professional practice as a complex organisation, with theoretical debates about complexity, systems theory and the LO model. Engaging participants in systems thinking, affording them an opportunity to reflect on the wider system and how it connects and learns, ensured this research was an “active intervention” (Ackroyd and Karlsson 2014: 39). Central to this process was connecting colleagues from across the organisation, thus supporting opportunities for emergence through non-linear connections, and engaging the participants in reflecting upon the system as a whole. Ram et al. (2014) highlight that bringing together the ideas, knowledge and reflections of researcher and practitioner “is more conducive to the generation of useful insights than either party working in isolation” (Ram et al. 2014: 220). Through non-linear connections and collaborative reflection we have developed an understanding of barriers and affordances to our development as a LO. Participating in that process has in itself begun to develop systems thinking within our organisation and I hope this is something that the Education Service feels able to continue. Through engaging in ongoing critical reflection as a service, a “process of sharing and negotiating” (Ram et al. 2014: 215), we can “recognise the existence of alternative rationalities, the limitations of our immediate interpretations, and, consequently, possibilities for change” (Munn-Giddings and Winter 2001: 53).

6.3.3 Capturing participant ideas

Using a creative interviewing approach (Mason 2010), this research employed two methods of recording the ideas and reflections generated from the FG discussions, providing a more in-depth data capture. Transcripts of audio recordings ensured that discussions were captured in their fullness, as is traditionally advocated as good practice (Somekh and Lewin 2005; Cohen, Manion, and Morrison 2007). Participants also logged their key ideas on the online Mentimeter® platform during the sessions (see appendix 19: Mentimeter® data - live concept wall capture). Part of the richness of bringing together colleagues who don't usually work together to explore and co-construct ideas, is the emergence that can result. Although the groups were asked to focus on barriers and affordances, at times these discussions also generated suggestions for improvement or solutions; explored in chapters 4 and 5. The online platform was not pre-designed to capture these suggestions and so, were it not for the audio transcripts, the ideas would have been lost. However, the Mentimeter® platform, which enabled participants to anonymously log key ideas, also had its benefits. Some participants added ideas to the Mentimeter® concept walls that they hadn't raised during the discussion; perhaps lacking the confidence to share some ideas, or thinking of ideas in addition as they inputted their thoughts.

6.3.4 The LO survey as a framework for discussion

As discussed in chapter 5, the application of the LO survey results to stimulate and frame discussion within the FGs could be suggested as a further key strength of this CR AR methodology. In chapter 5 I was able to outline the interest shown by participants in the scores from the wider organisation and the discussion this generated. The application of a LO survey in education research previously has been limited to its use as a measure (Marsick and Watkins 2003; Yang,

Watkins, and Marsick 2004). Taking such an approach would not have generated the same depth of reflection, or enabled participants to consider causality, without which our ability to change and develop is limited.

6.3.5 Survey limitations

Using the LO survey to introduce the LO framework and system thinking to the service as a whole was limited by the level of engagement. Some of the factors that likely impacted on engagement included the design, length and some of the content. The survey was designed to be completed in one sitting. This ensured anonymity, as there was no need for participants to log in, or input any identifiable information that would enable them to return to the survey to complete at a later date. As a result, many responses were begun but not completed. The completed survey response rate was 23%, but if all of the responses had been completed, this response rate would have been closer to 40%. Multiple factors will have impacted on participants completing the survey, but one obvious factor was likely the survey length. Although slightly reduced from the original WG SLO survey, the survey still required Likert responses to 63 items. Should the LA contemplate future roll-outs of the survey, they should perhaps consider reducing its length and, therefore, potentially increase engagement.

A further limitation of the survey was that the concepts being surveyed were quite vast, complex and, therefore, open to a great deal of interpretation. This was raised in the FG discussions, where participants agreed that they found some of the statements difficult to interpret as they were 'technical' and 'clunky'. FG participants also identified that there were times when they had interpreted survey items differently, such as questions about leadership. For many of the survey items referring to leadership some participants had reflected on the leadership of their immediate line manager, where others had reflected on service managers or Education Management Team members. If the LA plans further roll-outs of the survey, further development is needed to ensure as much clarity as possible for participants. However, these reflections once again highlight the importance of the opportunity for participants to engage in the FG discussions; without which it would not have been possible to explore the interpretations and limitations of the survey as experienced by participants.

6.3.6 Focus Group limitations

Careful consideration was given to involvement of senior leaders in the FG sessions. A key concern was the potential impact of their presence on the dynamic of the groups. However, in keeping with the theoretical underpinnings of the LO model, which calls for leaders who are able to "model effective collaborations" and "are open to others questioning their beliefs, opinions and ideas" (Government 2017c), and in recognition of the importance of non-linear connections, senior leaders were invited to participate. Despite communicating this to leaders, none came forward. My instinct initially was to assume that the research was just not important enough to leaders for them

to prioritise finding the time. I held a rather cynical view that the service leaders had only engaged with the research as a result of the outward impression it would give to the Welsh Government and to our inspectorate. However, central to CR research is the importance of being reflexive. During the time period that this AR was being carried out, my experiences and views of the organisation and its leadership were subject to their own changes; both from an academic and personal perspective. However, upon examining my own emotional, mental and value structures I was able to recognise how my recent experiences were shaping those assumptions. Upon deeper reflection I recognised that much of the LO model is reflecting on leadership and in chapter 5 I explored the possible implications of this for leaders. I considered that perhaps for some leaders the thought of participating in the groups, with representatives from across the service, may have been intimidating or uncomfortable. However, the FG discussions would likely have been richer for the views and reflections of our leaders, and the dialogue this may have stimulated, in a space engineered for colleagues to feel safe and empowered to speak openly.

6.4 Suggestions for further research

As acknowledged throughout this research, the LO model is built upon a foundation of systems theory but, within the field of education, its application has been limited to schools. I would suggest there is a need for research which considers its application to the education system as a whole. This echoes the OECD's call for the model to be widened across all Tiers of the education system, following their work supporting the Welsh Government Education Directorate to become a LO (Santos 12th Dec 2019). Research could focus on revising the model to extend its application across the multiple interconnecting layers of an education system, or consider approaches for developing LO characteristics across those settings. Further research may also consider the richness of opportunities for interconnection across the different layers of the education system, looking in more detail at the emergence from non-linear connections and what factors enable such connections to take place.

Through chapter 5 the role of leaders and the impact of a hierarchical leadership structure was identified as clear causal mechanisms in developing many of the LO characteristics. It was suggested that without the engagement of leaders, success at working towards developing as a LO will be limited; something echoed by Garratt (1999). The impact of a traditional hierarchical leadership structure on an organisation's ability to develop as an LO has been raised in research (Mills and Friesen 1992; Stewart 2001; Eisler 2015; Santa 2015), but within the field of education this warrants further consideration. Research could consider an approach which engages leaders, in the first instance, in reflecting on their structures and systems and how they may impact on the development of the LO characteristics, in preparation for introducing the model to their organisation.

However, there is another perspective regarding the hierarchical structure of a complex organisation, deriving from complexity theory which I find compelling. Houchin & Maclean (2005) carried out a four year ethnographic study considering complexity theory and change in a public sector organisation. From their findings they suggested that in complex systems a response to uncertainty is anxiety, and through anxiety a complex organisation will self-organise and that this can create hierarchy, even where none existed previously (Houchin and Maclean 2005). Further, they identified that the more they worked at the boundaries of the organisation, encouraging connectivity the more anxiety was generated causing the organisation to withdraw and seek anxiety-reducing, safe activities (Houchin and Maclean 2005). This is fascinating and could have significant implications when trying to encourage a complex organisation to engage with learning and change. There is not the scope to examine this in detail here, but it could generate some fascinating further research.

My final suggestion is for further research which explores the development and application of CR AR in the field of education. There is an emerging interest in CR AR as a methodological framework for research. However, its application has so far been limited to the fields of business (see Coghlan 2007; Ram et al. 2014; Teehankee 2018) and social care (see Houston 2010). Within chapter 3 I explored the ways in which CR and AR compliment one another, bringing together the philosophical position of CR, its focus on emancipation and human agency, alongside the cyclical inquiry of AR and its potential for bringing about social change (Friedman and Rogers 2009; Houston 2010; Ram et al. 2014). Through a CR understanding of reality as stratified and knowledge of reality as derived from interpretation, CR enables AR to “prevail against the generative mechanisms already in operation” (Ackroyd and Karlsson 2014: 38) by focusing causality. Through this research I have begun to explore the richness of applying a CR AR framework to a research problem in the field of education. The benefits of the CR AR methodology have been discussed throughout chapters 5 and 6. I would suggest that there is enormous scope for CR AR to be developed further in our field. This small study has only begun to scratch the surface.

6.5 Concluding remarks

“Any education system, however good or bad, cannot move or improve without actively building the capacity to do so.”

(Harris 2012: 400)

This research has shown that through a CR AR approach, the LO model introduced to schools in Wales can offer a framework for reflection and ongoing development for a Tier 2 organisation. The LO framework provided an anchor point for the research and an opportunity to begin to bring the concepts of systems theory into the discourse of the service. It also offered a clear rationale for

service leaders in gaining their support the research. The Welsh Government Education Directorate's commitment to become a LO alongside the schools they support, offered significant motivation for those organisations in Tier 2 to follow suit. However, it is clear from this research that the value of the LO framework is as a model with which an organisation can engage to develop its practices and processes; not as a measuring stick against which to judge itself. Through collaborative reflection colleagues were able to identify the barriers and affordances to us developing the characteristics of a LO. By applying retroduction, bringing together those causal mechanisms with a deeper theoretical reflection, this research has identified meta-findings which have offered a deeper insight into the importance of systems thinking in a complex organisation and our approaches to developing characteristics of a LO.

As I draw this research to its conclusion we are in the middle of a global pandemic, the likes of which we have never experienced in our lifetimes and a circumstance we could have never predicted. Our schools, colleges and universities have experienced periods of being closed to their learners and staff, and "business as usual" has not been possible. Our children and young people and their families have faced months of uncertainty and change. Experiences that form the very fabric of our education systems, such as year 6 leavers celebrations, sitting exams, getting results, gaining entry into university and year 11 proms, have not been possible in 2020. Recovering from this will be challenging, for individuals as well as for the system. Education systems have been called upon to adapt and change at a rapid pace.

Within my own LA, new ways of working and new ways of supporting schools and families have had to be devised, considered and implemented in record time. My personal reflection, as one cog in this education system, is that in many ways we have struggled. The system has struggled. In particular there have been barriers in terms of communication, but also barriers as a result of our traditional hierarchical leadership structure. In those first 2 to 3 months of Covid-19, where swift responses were needed for families and children, the existing processes in place to get something approved by leaders often took too long. The service's leaders, at times, seemed focussed on avoiding making mistakes and so took time to consider things, but the landscape shifted so rapidly that opportunities were missed.

The world as we knew it has changed and we have no way of predicting how this will develop and where it will take us next. Never before has being able to manage change, and work collaboratively and collectively for the greater good of the system and the people we serve, been more essential. I am more committed than ever to continue the work begun through this research project, of working collaboratively with colleagues to support our Education Service to develop as a learning organisation, to enable our education system to better engage with change.

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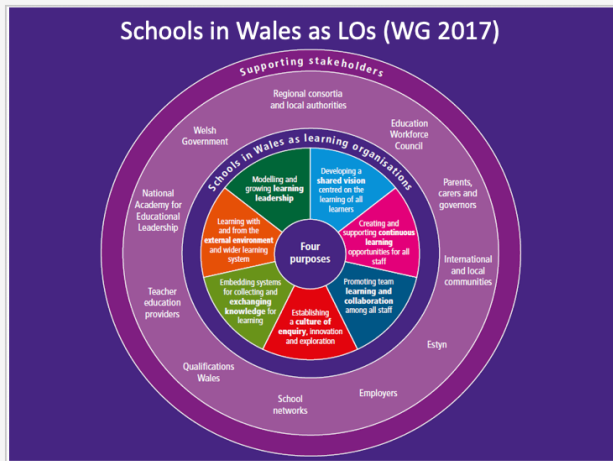
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APPENDICES

Appendix 1: SLO presentation for EMT

SLO in Tier 2 organisation
Research proposal

1



2

LEARNING ORGANISATION

The Welsh Education System three-tier model

Tier 1	Welsh Government • Planning and policy making – through evidence-based collaboration. • Managing models of accountability within the democratic process. • Engaging with all tiers and supporting capacity-building for system improvement.
Tier 2	Four regional consortia, local authorities, diocesan authorities, Estyn, Qualifications Wales, Education Workforce Council (EWC), examination boards and higher education • Using their knowledge of schools and research to facilitate and support the sharing of best practice and collaboration to improve learner outcomes, within a self-improving school system.
Tier 3	Schools • Working together to provide the range of experiences for children, young people and professionals to enhance their learning and well-being.

Education in Wales: Our National Mission (Welsh Government 2017, p.10)

3

LEARNING ORGANISATION

System-wide LOs development

- WG has committed to becoming a LO
 - Working with OECD to shape schools questionnaire for Tier 1
 - Roll-out this summer?
- Some consortia are developing work towards becoming LOs

Education Service development

- To what extent do the characteristics of the WG LO model already exist within the Education Service?
- What may be some of the barriers in our journey towards becoming a LO?

4

LEARNING ORGANISATION

Initial proposal...

- Revise the SLO questionnaire for the LA
- Questionnaire to all education staff
- Semi-structured interviews / focus groups?

5

Appendix 2: Extended SLO presentation for wider EMT


**Education Service
as a
Learning Organisation**

1

LEARNING ORGANISATION

"Knowledge is a capacity for effective action, and learning is a process that enhances knowledge."
(Senge, Schneider, and Wallace 2014: 3)

- Systems theory – complex systems, capable of learning and changing through internal and external connections in open nested systems
- Popularized by Senge's **5th Discipline** (1990) – aimed at world of business
- Systems need to be able to learn and adapt to survive fast paced change



2

LEARNING ORGANISATION

SCHOOLS as Learning Organizations (SLO)

- SLO research since the 1990's (O'Neil 1995; Leithwood, Leonard, and Sharratt 1998; Silins, Zbarin, and Mulford 1998)
- Recent resurgence (Kools and Stoll 2016b; Seashore Louis and Lee 2016; Harris and Jones 2018)
- Underpinned by systems theory, learning theories, change management

What makes a school a learning organisation? (Kools and Stoll 2016)

What makes a school a learning organisation? A guide for policy makers, school leaders and teachers (OECD 2016)

- Created a revised model for SLOs based on synthesis of existing perspectives
- Develop 7 dimension model of SLOs
- 4T's: trust, time, technology and thinking together

3

LEARNING ORGANISATION

The Welsh Education System three-tier model

Tier 1	Welsh Government - Planning and policy making – through evidence-based collaboration - Managing models of accountability within the democratic process - Engaging with all tiers and supporting capacity-building for system improvement
Tier 2	Four regional consortia, local authorities, diocesan authorities, Eisteddfod, Qualifications Wales, Education Workforce Council (EWC), examination boards and higher education - Using their knowledge of schools and research to facilitate and support the sharing of best practice and innovation to improve learner outcomes, within a well-resourcing school system
Tier 3	Schools - Working together to provide the range of experiences for children, young people and professionals to enhance their learning and well-being

Education in Wales: Our National Mission (Welsh Government 2017, p.10)

WHOLE SYSTEM REFORM = connections and leadership across all parts of the system + conscious responsibility towards whole system
Fullan (1993, 1999, 2003) and Barber and Fullan (2005)

4

LEARNING ORGANISATION

Wales' SLO model...

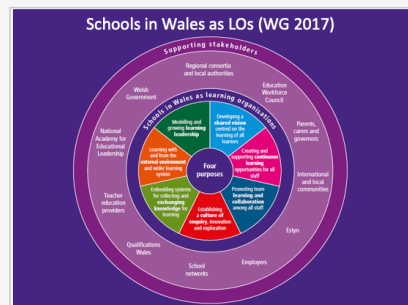
Education in Wales: Our National Mission (WG 2017)

- Strong theme of whole system working, managing change and working collaboratively
- Called for "effective and honest engagement between all facets of the education system" (p.8)
- Committed to the OECD SLO model

Schools in Wales as Learning Organisations (WG 2017)

- 4 core curriculum purposes at heart
- Slightly tweaked 7 dimensions

5



6

LEARNING ORGANISATION

Developing Schools as Learning Organisations in Wales (OECD 2018)

Questionnaire to schools staff – 1703 responses from 178 schools
Interviews – 80 schools leaders, teachers and teaching assistants

- "majority" of schools progressing towards
- "considerable proportion" far from "realising objective"
- Uneven engagement with 7 dimensions
 - Good progress in team learning & collaboration + systems for collecting and exchanging knowledge & learning
 - Less developed work on shared vision, culture of enquiry and links with wider system
- Secondary schools finding it much more difficult than primary
- OECD felt some responses were not open reflections due to "high stakes assessment, evaluation and accountability"

7

LEARNING ORGANISATION

System-wide LOs development

WG has committed to becoming a LO

- Working with OECD to shape schools questionnaire for Tier 1
- Roll-out this summer?

Education Service development

Some consortia are developing work towards becoming LOs

Education Service development

To what extent do the characteristics of the WG LO model already exist within the Education Service?

What may be some of the barriers in our journey towards becoming a LO?

8

LEARNING ORGANISATION

Next steps...

- Final revision of LO questionnaire
- Questionnaire to all Education Service staff June 2019
- Semi-structured interviews / focus groups with staff from across the service July - September?
- Data analysis July – Oct
- Time to reflect and plan
- Repeat questionnaire within agreed timeframe

9

LEARNING ORGANISATION

Aiming for Education to be

"...an organization skilled at creating, acquiring, and transferring knowledge, and at modifying its behaviour to reflect new knowledge and insights."
(Garvin 1993: 80)

whilst recognising that becoming a LO is

"...more an aspiration for a continuous process rather than a single product"
(Garratt 1999: 206)

10

Appendix 3: Suggested email for survey

From: Hodgson, Anne
Sent: 02 July 2019 13:47
To: [REDACTED]
Cc: [REDACTED]
Subject: Education Service - Online Survey
Importance: High

Hi [REDACTED]

The survey is live and bilingual. I would say we need to get it out in the next day or two, given how close to the end of term we are now.

I'm not sure if you want to send the email out from you or if [REDACTED] would like to send it out. I've put together a suggested email to outline the survey to colleagues service-wide (see below). Feel free to tweak. As long as it still mentions that its part of doctoral research and that responses are anonymous (both of those are ethics requirements), I'm happy for any other changes to be made.

Many thanks again for all your support with this

Regards

Anne

Dear colleagues,

As a service, we are aspiring to become a **Learning Organisation**; committed to developing our shared vision, leadership, collaboration and learning opportunities. This is in line with the Welsh Government's '*Schools as Learning Organisations*' model and their own commitment to developing towards becoming a Learning Organisation.

All staff in [REDACTED] Education Service are strongly encouraged to complete an **online survey** to enable you to participate in the development of the service moving forward. The survey, which should take approximately **10 minutes** to complete, will form part of a piece of doctoral research being carried out by one of our Education Service colleagues. There is a language selection drop down menu at the top of each screen, enabling you to move between **English and Welsh**. You will be asked 3 questions to establish your role in the service, but no other personal information will be sought and responses will be completely **anonymous**. The survey will be live until **Wednesday the 24th of July**.

The survey can be completed on mobile devices, computers or laptops. Please follow the link to take the survey https://bristolexppsych.eu.qualtrics.com/jfe/form/SV_b9jbp68KWhNI2b3

We thank you in advance for your time and for sharing your views.

Kindest regards,

Appendix 4: Final email for survey from OM

From: [REDACTED]

Sent: 5 Jul 2019 22:24

To: Education - All Staff [REDACTED]

Cc: [REDACTED]

Subject: STAFF SURVEY - please take part!

Dear colleagues,

As we prepare for a refresh of our vision for education and learning in [REDACTED], it is an opportune time for us to capture staff views and opinion regarding our effectiveness as a **Learning Organisation** - an organisation committed to developing a shared vision, leadership, collaboration and learning opportunities. In doing so, we are keen to embrace the Welsh Government's '*Schools as Learning Organisations*' model; a model which is being actively adopted by schools and the Welsh Government itself as an employer.

Please can I encourage you to complete the online survey below, to have your say on our effectiveness as a Learning Organisation, and to ensure your voice is heard in this respect as we move forward?

The survey, which should take approximately 10 minutes to complete, will also form part of a piece of doctoral research being carried out by one of our Education Service colleagues. There is a language selection drop down menu at the top of each screen, enabling you to move between English and Welsh. You will be asked 3 questions to establish your role in the service, but no other personal information will be sought and responses will be completely anonymous.

The survey can be completed on mobile devices, computers or laptops. Please follow the link to take the survey https://bristolxppsy.ch.eu.qualtrics.com/jfe/form/SV_b9jbp68KWhNI2b3

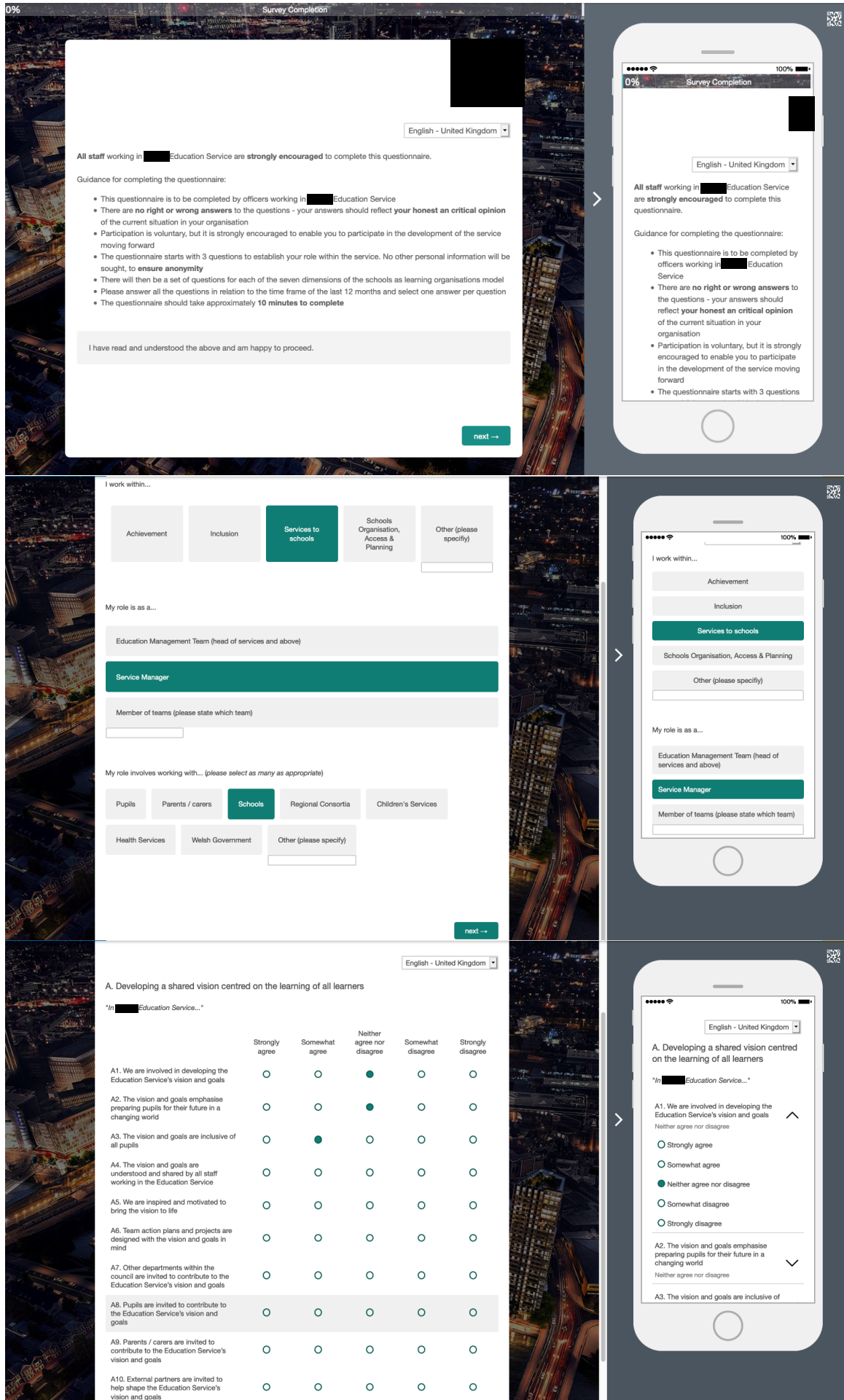
The survey will be live until Wednesday the 24th of July.

Thank you in advance for your time and for sharing your views. Once complete, aggregate survey outcomes will be shared.

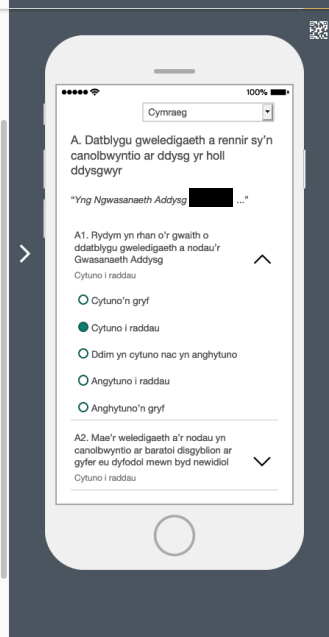
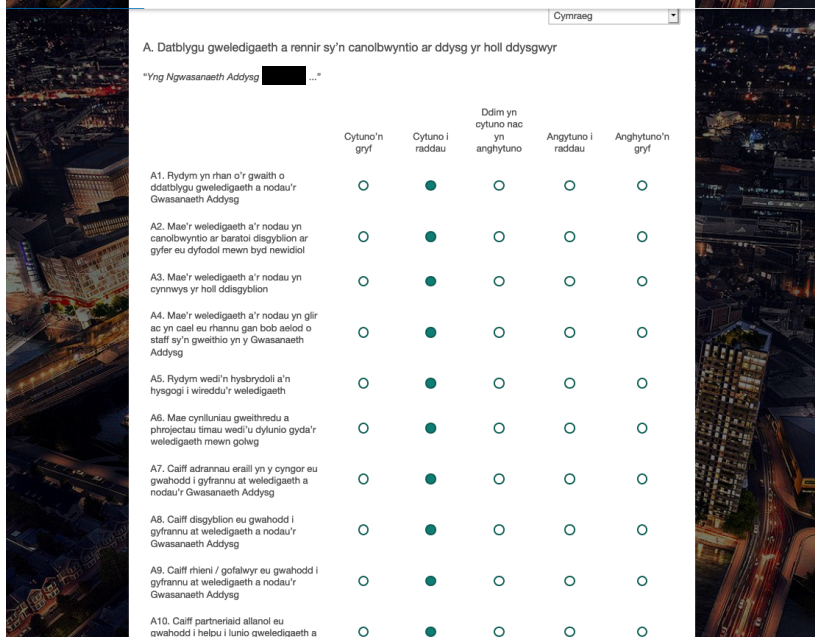
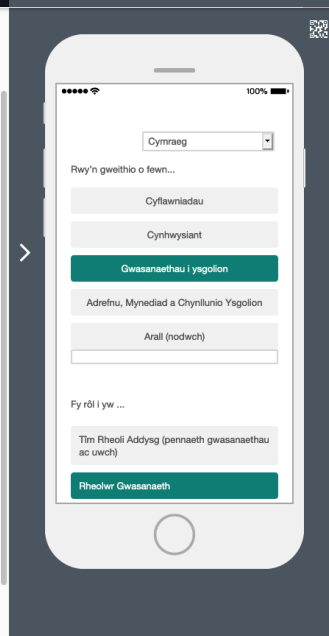
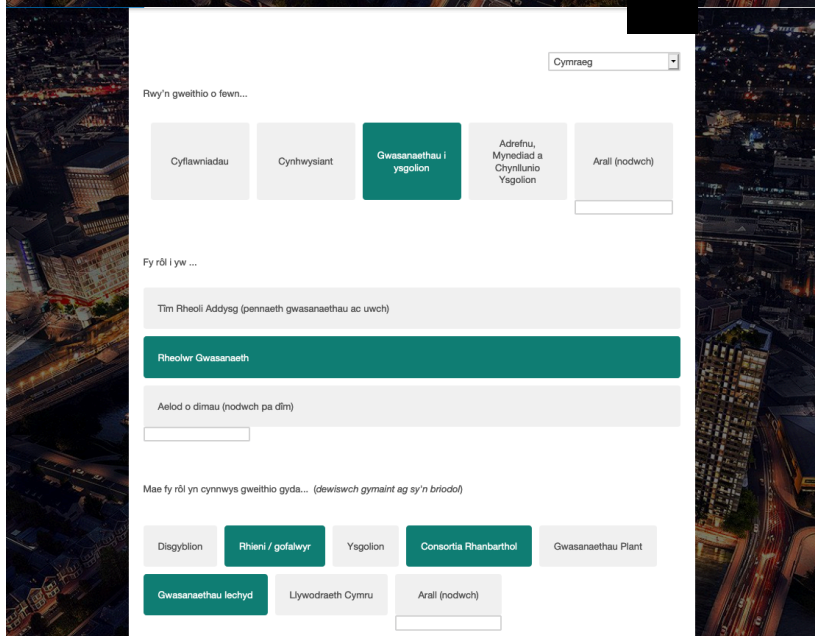
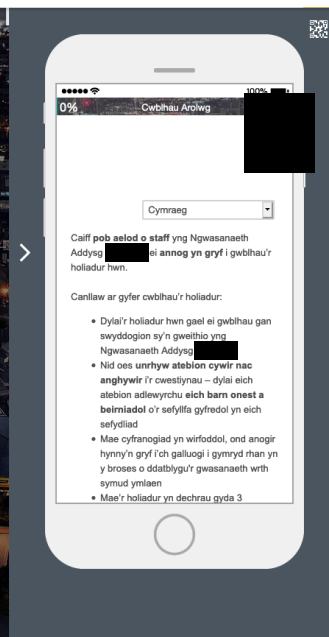
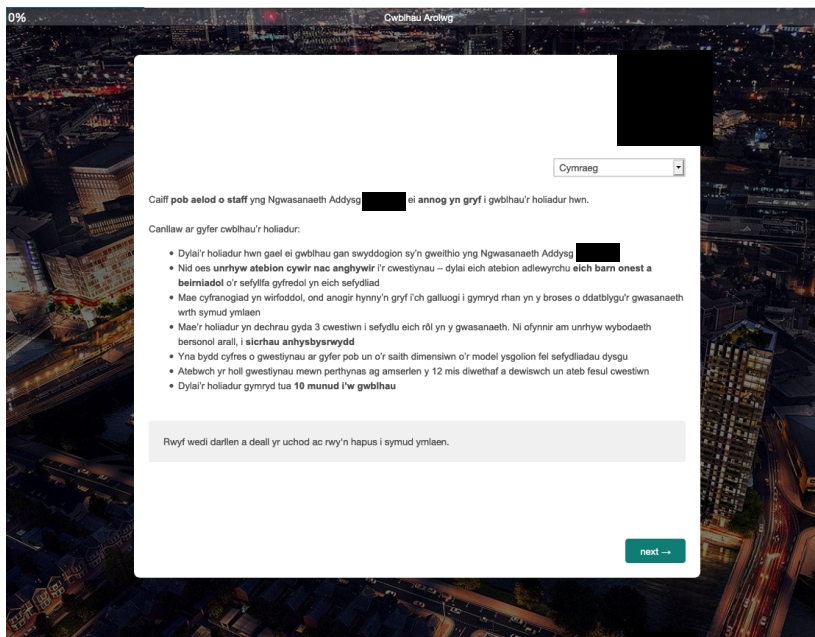
Kind regards,

[REDACTED]

Appendix 5: Online survey (English)



Appendix 6: Online survey (Cymraeg)



Annex 2.C. Schools as Learning Organisations Survey, 2017

Questionnaire for school leaders, teachers and teaching support staff

Guidance for completing the questionnaire: (to be further tailored to local context)

- This questionnaire is to be completed by school leaders, teachers and learning support workers.
- There are no right or wrong answers to the questions – your answers should reflect your honest and critical opinion on the current situation in your school.
- The questionnaire starts with a question on your position, followed by a set of questions for each of the seven dimensions of the school as learning organisation (background questions are not included).
- Please answer all questions in relation to the time frame of the last 12 months.
- Select one answer per question.
- The questionnaire should take approximately 10 minutes to complete.

QUESTIONS

A. Developing a shared vision centred on the learning of all students

	<i>"In my school, ..."</i>				
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
A1. The school's vision is aimed at enhancing student's cognitive and social-emotional outcomes, including their well-being	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A2. The school's vision emphasises preparing students for their future in a changing world	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A3. The school's vision enhances all students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A4. Learning activities and teaching are designed with the school's vision in mind	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A5. The school's vision is understood and shared by all staff working in the school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A6. Staff are inspired and motivated to bring the school's vision to life	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A7. All staff are involved in developing the school's vision	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A8. School governors are involved in developing the school's vision	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A9. Students are invited to contribute to the school's vision	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A10. Parents are invited to contribute to the school's vision	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A11. External partners are invited to help shape the school's vision	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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B. Promoting and supporting continuous professional learning for all staff

	<i>"In my school, ..."</i>				
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
B1. Professional learning of staff is considered a high priority	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B2. Staff engage in professional learning to ensure their practice is critically informed and up to date	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B3. Staff are involved in identifying the objectives for their professional learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B4. Professional learning is focused on students' needs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B5. Professional learning is aligned to the school's vision	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B6. Mentors/coaches are available to help staff develop their practice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B7. All new staff receive sufficient support to help them in their new role	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B8. Staff receive regular feedback to support reflection and improvement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B9. Students are encouraged to give feedback to teachers and support staff*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B10. Staff have opportunities to experiment with and practise new skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B11. Beliefs, mindsets and practices are challenged by professional learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

C. Fostering team learning and collaboration among staff

	<i>"In my school, ..."</i>				
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
C1. Staff collaborate to improve their practice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C2. Staff learn how to work together as a team	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C3. Staff help each other to improve their practice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C4. Staff observe each other's practice and collaborate in developing it*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C5. Staff give honest feedback to each other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C6. Staff listen to each other's ideas and opinions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C7. Staff feel comfortable turning to others for advice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C8. Staff treat each other with respect	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C9. Staff spend time building trust with each other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C10. Staff think through and tackle problems together	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C11. Staff reflect together on how to learn and improve their practice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

D. Establishing a culture of enquiry, exploration and innovation

	<i>"In my school, ..."</i>				
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
D1. Staff are encouraged to experiment and innovate their practice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
D2. Staff are encouraged to take initiative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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D3. Staff are supported when taking calculated risks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
D4. Staff spend time exploring a problem before taking action	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
D5. Staff engage in enquiry (i.e. pose questions, gather and use evidence to decide how to change their practice, and evaluate its impact)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
D6. Staff are open to thinking and doing things differently	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
D7. Staff are open to others questioning their beliefs, opinions and ideas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
D8. Staff openly discuss failures in order to learn from them	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
D9. Problems are seen as opportunities for learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

E. Embedding systems for collecting and exchanging knowledge and learning

"In my school, ..."

E1. The school's development plan is based on learning from continuous self-assessment and updated at least once every year	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
E2. Structures are in place for regular dialogue and knowledge sharing among staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
E3. Evidence is collected to measure progress and identify gaps in the school's performance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
E4. Staff analyse and use data to improve their practice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
E5. Staff use research evidence to improve their practice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
E6. Staff analyse examples of good/great practices and failed practices to learn from them	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
E7. Staff learn how to analyse and use data to inform their practice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
E8. Staff regularly discuss and evaluate whether actions had the desired impact and change course if necessary	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

F. Learning with and from the external environment and larger system

"In my school, ..."

F1. Opportunities and threats outside the school are monitored continuously to improve our practice *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
F2. Parents/guardians are partners in the school's organisational and educational processes *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
F3. Staff actively collaborate with social and health services to better respond to students' needs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
F4. Staff actively collaborate with higher education institutions to deepen staff and student learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
F5. Staff actively collaborate with other external partners to deepen staff and student learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
F6. Staff collaborate, learn and share knowledge with peers in other schools	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
F7. The school as a whole is involved in school-to-school networks or collaborations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

G. Modelling and growing learning leadership

"In my school, ..."

G1. Leaders participate in professional learning to develop their practice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
G2. Leaders facilitate individual and group learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
G3. Leaders coach those they lead	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
G4. Leaders develop the potential of others to become future leaders	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
G5. Leaders provide opportunities for staff to participate in decision making	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
G6. Leaders provide opportunities for students to participate in decision making	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
G7. Leaders give staff responsibility to lead activities and projects	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
G8. Leaders spend time building trust with staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
G9. Leaders put a strong focus on improving learning and teaching	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
G10. Leaders ensure that all actions are consistent with the school's vision, goals and values	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
G11. Leaders anticipate opportunities and threats	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
G12. Leaders model effective collaborations with external partners	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Note: * Indicates the survey items that the principal component analysis and reliability analysis found not to fit the SLO concept i.e. Wales' SLO model. These items were excluded from the list of items used to calculate the average scores for each of the SLO dimensions and as such were also not included in the average SLO score reported on in Chapter 2.

Appendix 8: Developing SLO survey for Tier 2 organisation

A detailed breakdown of changes to the survey - colour coded

In **Dimension A** the OECD's item A1 was not used in the Tier 2 (T2) survey. Discussions led to the conclusion that T2's A2 and A3 statements covered learner "cognitive and social-emotional outcomes, including their well-being" and that the statement was more appropriate for schools, as many service areas in education are not working directly with learners. Significant changes were made to 2 items in dimension A, A4 was necessarily changed to reflect the different types of work carried out by the LA compared to schools, using the terms "team action plans and projects". Similarly, "other departments within the council" replaced "school governors" in the OECD's A8 item. The items were re-ordered in this dimension as it was felt that the order selected flowed more purposefully, beginning with the concept of everyone being involved in developing the vision and goals, what those goals are focussed on, steering all work and others contributing to their development.

Developing a shared vision centred on the learning of all students	Developing a shared vision centred on the learning of all <i>learners</i>	Aligns with OECD item
"In my school,..."	"In X Education Service, ..."	
A1. The school's vision is aimed at enhancing student's cognitive and social-emotional outcomes, including their well-being	A1. We are involved in developing the Education Service's vision and goals (A7)	A7
A2. The school's vision emphasises preparing students for their future in a changing world	A2. The vision and goals emphasise preparing pupils for their future in a changing world (A2)	A2
A3. The school's vision embraces all students	A3. The vision and goals are inclusive of all pupils (A3)	A3
A4. Learning activities and teaching are designed with the school's vision in mind	A4. The vision and goals are understood and shared by all staff working in the Education Service (A5)	A5
A5. The school's vision is understood and shared by all staff working in the school	A5. We are inspired and motivated to bring the vision to life (A6)	A6
A6. Staff are inspired and motivated to bring the school's vision to life	A6. Team action plans and projects are designed with the vision and goals in mind (A4)	A4
A7. All staff are involved in developing the school's vision	A7. Other departments within the council are invited to contribute to the Education Service's vision and goals (A8)	A8
A8. School governors are involved in developing the school vision	A8. Pupils are invited to contribute to the Education Service's vision and goals (A9)	A9
A9. Students are invited to contribute to the school's vision	A9. Parents / carers are invited to contribute to the Education Service's vision and goals (A10)	A10
A10. Parents are invited to contribute to the school's vision	A10. External partners are invited to help shape the Education Service's vision and goals (A11)	A11
A11. External partners are invited to help shape the school's vision		

Within **Dimension B**, two items remained untouched in terms of wording (OECD's B6 and B11). The OECD's B4 was removed entirely as it was felt that the T2 B4 was sufficient and again, many staff in the service do not work directly with learners. All other statements received just minor tweaks (see below). In their analysis the OECD had identified item B9 as not fitting the survey. However we took the decision to retain that item (see B10) concept as feedback from service users is so crucial to our service.

Promoting and supporting continuous professional learning for all staff	Promoting and supporting continuous professional learning for all staff	Aligns with OECD item
"In my school,..."	"In X Education Service, ..."	
B1. Professional learning of staff is considered a high priority	B1. The professional learning and development of staff is considered a high priority (B1)	B1
B2. Staff engage in professional learning to ensure their practice is critically informed and up to date	B2. We engage in professional learning to update our knowledge and skills and challenge work practices (B2)	B2
B3. Staff are involved in identifying the objectives for their professional learning	B3. We are involved in identifying the objectives for our professional learning (B3)	B3
B4. Professional learning is focussed on student's needs	B4. Professional learning is aligned to the Education Service's vision (B5)	B5
B5. Professional learning is aligned to the school's vision	B5. All staff receive sufficient support to help them in a new role (new employee / new role) (B7)	B7
B6. Mentors / coaches are available to help staff to develop their practice	B6. Mentors / coaches are available to help staff to develop their practice (B6)	B6
B7. All new staff receive sufficient support to help them in their new role	B7. We receive regular feedback to support reflection and improvement (B8)	B8
B8. Staff receive regular feedback to support reflection and improvement	B8. We have opportunities to experiment with and practise new skills (B10)	B10
B9. Students are encouraged to give feedback to teachers and support staff *	B9. Beliefs, mindsets and practices are challenged by professional learning (B11)	B11
B10. Staff have opportunities to experiment with and practise new skills	B10. Service users, including pupils, parents / carers and schools are encouraged to give feedback to the Education Service (B9) - important for service to keep this in!	B9
B11. Beliefs, mindsets and practices are challenged by professional learning		

Dimension C saw the second highest number of changes of all the dimensions. Three of the OECD items were removed from our survey. C3 was felt to be a repeat of C1, C4 was found by the OECD not to fit and C9 was felt to be another way of saying items C5-C8. Item C1 was re-worded to include 'opportunities' to collaborate and replaced 'improve their practice' with 'learn from each other'. The importance of working across teams was added to C2 and C5 was expanded from 'honest feedback' to a wider concept of being honest and open with each other. Item C9 was a new addition, which was felt necessary in an organisation as large and diverse as the Education Service.

Promoting and supporting continuous professional learning for all staff	Fostering team learning and collaboration amongst staff	Aligns with OECD item
“In my school,...”	“In X Education Service, ...”	
C1. Staff collaborate to improve their practice	C1. We have opportunities to collaborate and learn from each other (C1)	C1
C2. Staff learn how to work together as a team	C2. We are encouraged to work together as teams and across teams (C2)	C2
C3. Staff help each other to improve practice - seemed a repeat of C1	C3. We feel comfortable seeking advice from others (C7)	C7
C4. Staff observe each others practice and collaborate in developing it *	C4. We treat each other with respect (C8)	C8
C5. Staff give honest feedback to each other	C5. We are open and honest with each other (C5)	C5
C6. Staff listen to each other’s ideas and opinions	C6. We listen to each other’s ideas and opinions (C6)	C6
C7. Staff feel comfortable turning to each other for advice	C7. We think through and tackle problems together (C10)	C10
C8. Staff treat each other with respect	C8. We reflect together on how to learn and improve our practice (C11)	C11
C9. Staff spend time building trust with each other	C9. Conflicts are mediated effectively	
C10. Staff think through and tackle problems together		
C11. Staff reflect together on how to learn and improve their practice		

Dimension D was largely unaltered. Minor tweaks to language were made, mainly changing ‘staff’ to ‘we’. The OECD’s item D9 was removed and replaced by an item which talked about the dissemination of learning. Again, do to the nature of the organisation, it was felt that a crucial factor was the way in which new learning was shared across the service.

Establishing a culture of enquiry, exploration and innovation	Establishing a culture of enquiry, exploration and innovation	Aligns with OECD item
“In my school,...”	“In X Education Service, ...”	
D1. Staff are encouraged to experiment and innovate their practice	D1. We are encouraged to experiment and innovate (D1)	D1
D2. Staff are encouraged to take initiative	D2. We are encouraged to take initiative (D2)	D2
D3. Staff are supported when taking calculated risks	D3. We are supported when taking calculated risks (D3)	D3
D4. Staff spend time exploring a problem before taking action	D4. We spend time exploring a problem before taking action (D4)	D4

Establishing a culture of enquiry, exploration and innovation	Establishing a culture of enquiry, exploration and innovation	Aligns with OECD item
D5. Staff engage in enquiry (i.e. pose questions, gather and use evidence to decide how to change their practice, and evaluate its impact)	D5. We engage in enquiry (i.e. pose questions, gather and use evidence to decide how to change practice, and evaluate impact) (D5)	D5
D6. Staff are open to thinking and doing things differently	D6. We are open to thinking and doing things differently (D6)	D6
D7. Staff are open to others questioning their beliefs, opinions and ideas	D7. We are open to others questioning our approaches and ideas (D7)	D7
D8. Staff openly discuss failures in order to learn from them	D8. We discuss things that have worked as well as those that haven't in order to learn from them (D8)	D8
D9. Problems are seen as opportunities for learning	D9. Learning from new initiatives and innovation is disseminated successfully	

Little was changed in **Dimension E**. Items E2 and E3 were retained without any changes at all and only minor edits were made to the remaining items.

Embedding systems for collecting and exchanging knowledge and learning	Embedding systems for collecting and exchanging knowledge and learning	Aligns with OECD item
"In my school,..."	"In X Education Service, ..."	
E1. The school's development plan based on learning from continuous self-assessment and updated at least once every year	E1. We have a development plan based on learning from continuous self-assessment and updated at least once every year	E1
E2. Structures are in place for regular dialogue and knowledge sharing among staff	E2. Structures are in place for regular dialogue and knowledge sharing among staff	E2
E3. Evidence is collected to measure progress and identify gaps in performance	E3. Evidence is collected to measure progress and identify gaps in performance	E3
E4. Staff analyse and use data to improve their practice	E4. We analyse and use data to improve our practice	E4
E5. Staff use research evidence to improve their practice	E5. We use research evidence to improve / influence our work	E5
E6. Staff analyse examples of good / great practices and failed practices to learn from them	E6. We analyse examples of good / great practices and failed practices to learn from them	E6
E7. Staff learn how to analyse and use data to inform their practice	E7. We have opportunities to learn how to analyse and use data to inform our practice	E7
E8. Staff regularly discuss and evaluate whether actions had the desired impact and change course if necessary	E8. We regularly discuss and evaluate whether actions had the desired impact and change course if necessary	E8

In **Dimension F**, elements of the OECD items F2 and F6, were brought together to create the T2 survey's F2 "*We collaborate, learn and share knowledge with service users, including pupils, parents / carers and*

schools". An additional item was added to the survey, item F6, to capture the policy context of the service and our role in consulting with others and exploring policy options. This was felt a crucial part of the role of the LA.

Learning with and from the external environment and larger system	Learning with and from the external environment and larger system	Aligns with OECD item
"In my school,..."	"In X Education Service, ..."	
F1. Opportunities and threats outside the school are monitored continuously to improve our practice *	F1. External opportunities and challenges are monitored continuously to inform our work (F1)	F1
F2. Parents / guardians are partners in the school's organisational and educational processes *	F2. We collaborate, learn and share knowledge with service users, including pupils, parents / carers and schools (takes elements of F2 and F6 with LA context)	F2+F6
F3. Staff actively collaborate with social and health services to better respond to students' needs	F3. We collaborate, learn and share knowledge with social and health services to better respond to pupils' needs (F3)	F3
F4. Staff actively collaborate with higher education institutions to deepen staff and student learning	F4. We collaborate, learn and share knowledge with higher education institutions to deepen staff and pupil learning (F4)	F4
F5. Staff actively collaborate with other external partners to deepen staff and student learning	F5. We collaborate, learn and share knowledge with other external partners	F5
F6. Staff collaborate, learn and share knowledge with peers in other schools	F6. External consultation/ engagement to explore different policy options are effective and informative	
F7. The school as a whole is involved in school-to-school networks or collaborations	F7. We are involved in and support school-to-school networks or collaborations (F7)	F7

Finally, **Dimension G**. This was the most significantly changed dimension of the survey. 5 OECD items were removed, 4 T2 items were added and 3 further items were significantly changed. This is perhaps reflective of the fact that it was the leaders in the service that shaped the survey development. It was felt that an item which highlighted the importance of innovation (G1), celebrating success (G3) leaders being accepting of mistakes (G7) and being open to others questioning their opinions (G8) were all essential additions for this dimension. Item G2 was reworded from leaders facilitating learning to supporting staff 'to take responsibility for their own learning'. This is reflection of the size and diversity of the service, where a small number of senior staff are not able to 'facilitate' the learning of all individuals.

Modelling and growing learning leadership	Modelling and growing learning leadership	Aligns with OECD item
"In my school,..."	"In X Education Service, ..."	
G1. Leaders participate in professional learning to develop their practice	G1. Leaders value and support innovative solutions	
G2. Leaders facilitate individual and group learning	G2. Leaders support staff to take responsibility for their own learning and development	G2
G3. Leaders coach those they lead	G3. Leaders celebrate success	

Modelling and growing learning leadership	Modelling and growing learning leadership	Aligns with OECD item
G4. Leaders develop the potential of others to become future leaders	G4. Leadership is fostered and developed in staff across the service (G4)	G4
G5. Leaders provide opportunities for staff to participate in decision making	G5. Staff are given opportunities to participate in decision making and lead on areas of work (combined G5+G7)	G5+G7
G6. Leaders provide opportunities for students to participate in decision making	G6. Leaders provide opportunities for service users, including pupils, parents / carers and schools to participate in decision making (widened G6 to include all service users)	G6
G7. Leaders give staff responsibility to lead activities and projects	G7. Leaders encourage learning opportunities, irrespective of the final result i.e. learning from mistakes is acceptable	
G8. Leaders spend time building trust with staff	G8. Leaders are open to others questioning their beliefs, opinions and ideas	
G9. Leaders put a strong focus on improving learning and teaching	G9. Leaders ensure that all actions are consistent with the service's vision, goals and values (G10)	G10
G10. Leaders ensure that all actions are consistent with the school's vision, goals and values	G10. Leaders model effective collaborations with external partners and key stakeholders (G12)	G12
G11. Leaders anticipate opportunities and threats		
G12. Leaders model effective collaborations with external partners		

Appendix 9: Finalised Tier 2 LO survey

A. Developing a shared vision centred on the learning of all learners

"In [redacted] Education Service, ..."	strongly agree	Somewhat at agree	Neither agree nor disagree	Somewhat at disagree	strongly disagree
A1. We are involved in developing the Education Service's vision and goals					
A2. The vision and goals emphasise preparing pupils for their future in a changing world					
A3. The vision and goals are inclusive of all pupils					
A4. The vision and goals are understood and shared by all staff working in the Education Service					
A5. We are inspired and motivated to bring the vision to life					
A6. Team action plans and projects are designed with the vision and goals in mind					
A7. Other departments within the council are invited to contribute to the Education Service's vision and goals					
A8. Pupils are invited to contribute to the Education Service's vision and goals					
A9. Parents / carers are invited to contribute to the Education Service's vision and goals					
A10. External partners are invited to help shape the Education Service's vision and goals					

B. Promoting and supporting continuous professional learning for all staff

"In [redacted] Education Service, ..."	strongly agree	Somewhat at agree	Neither agree nor disagree	Somewhat at disagree	strongly disagree
B1. The professional learning and development of staff is considered a high priority					
B2. We engage in professional learning to update our knowledge and skills and challenge work practices					
B3. We are involved in identifying the objectives for our professional learning					
B4. Professional learning is aligned to the Education Service's vision					
B5. All staff receive sufficient support to help them in a new role (new employee / new role)					
B6. Mentors / coaches are available to help staff to develop their practice					
B7. We receive regular feedback to support reflection and improvement					
B8. We have opportunities to experiment with and practise new skills					
B9. Beliefs, mindsets and practices are challenged by professional learning					

B10. Service users, including pupils, parents / carers and schools are encouraged to give feedback to the Education Service					
---	--	--	--	--	--

C. Fostering team learning and collaboration amongst staff

"In [redacted] Education Service, ..."	strongly agree	Somewhat at agree	Neither agree nor disagree	Somewhat at disagree	strongly disagree
C1. We have opportunities to collaborate and learn from each other					
C2. We are encouraged to work together as teams and across teams					
C3. We feel comfortable seeking advice from others					
C4. We treat each other with respect					
C5. We are open and honest with each other					
C6. We listen to each other's ideas and opinions					
C7. We think through and tackle problems together					
C8. We reflect together on how to learn and improve our practice					
C9. Conflicts are mediated effectively					

D. Establishing a culture of enquiry, exploration and innovation

"In [redacted] Education Service, ..."	strongly agree	Somewhat at agree	Neither agree nor disagree	Somewhat at disagree	strongly disagree
D1. We are encouraged to experiment and innovate					
D2. We are encouraged to take initiative					
D3. We are supported when taking calculated risks					
D4. We spend time exploring a problem before taking action					
D5. We engage in enquiry (i.e. pose questions, gather and use evidence to decide how to change practice, and evaluate impact)					
D6. We are open to thinking and doing things differently					
D7. We are open to others questioning our approaches and ideas					
D8. We discuss things that have worked as well as those that haven't in order to learn from them					
D9. Learning from new initiatives and innovation is disseminated successfully					

E. Embedding systems for collecting and exchanging knowledge and learning

"In [redacted] Education Service, ..."	strongly agree	Somewh at agree	Neither agree nor disagree	Somewh at disagree	strongly disagree
E1. We have a development plan based on learning from continuous self-assessment and updated at least once every year					
E2. Structures are in place for regular dialogue and knowledge sharing among staff					
E3. Evidence is collected to measure progress and identify gaps in performance					
E4. We analyse and use data to improve our practice					
E5. We use research evidence to improve / influence our work					
E6. We analyse examples of good / great practices and failed practices to learn from them					
E7. We have opportunities to learn how to analyse and use data to inform our practice					
E8. We regularly discuss and evaluate whether actions had the desired impact and change course if necessary					

F. Learning with and from the external environment and larger system

"In [redacted] Education Service, ..."	strongly agree	Somewh at agree	Neither agree nor disagree	Somewh at disagree	strongly disagree
F1. External opportunities and challenges are monitored continuously to inform our work					
F2. We collaborate, learn and share knowledge with service users, including pupils, parents / carers and schools					
F3. We collaborate, learn and share knowledge with social and health services to better respond to pupils' needs					
F4. We collaborate, learn and share knowledge with higher education institutions to deepen staff and pupil learning					
F5. We collaborate, learn and share knowledge with other external partners					
F6. External consultation/ engagement to explore different policy options are effective and informative					
F7. We are involved in and support school-to-school networks or collaborations					

I. Modelling and growing learning leadership

"In [redacted] Education Service, ..."	strongly agree	Somewh at agree	Neither agree nor disagree	Somewh at disagree	strongly disagree
G1. Leaders value and support innovative solutions					
G2. Leaders support staff to take responsibility for their own learning and development					
G3. Leaders celebrate success					
G4. Leadership is fostered and developed in staff across the service					
G5. Staff are given opportunities to participate in decision making and lead on areas of work					
G6. Leaders provide opportunities for service users, including pupils, parents / carers and schools to participate in decision making					
G7. Leaders encourage learning opportunities, irrespective of the final result i.e. learning from mistakes is acceptable					
G8. Leaders are open to others questioning their beliefs, opinions and ideas					
G9. Leaders ensure that all actions are consistent with the service's vision, goals and values					
G10. Leaders model effective collaborations with external partners and key stakeholders					

Appendix 10: Survey email to all staff

EMAIL SENT OUT WITH SURVEY LINK...

From: SS
Sent: 05 July 2019 22:24
To: Education - All Staff
Cc: Hodgson, Anne
Subject: STAFF SURVEY - please take part!
Importance: High

Dear colleagues,

As we prepare for a refresh of our vision for education and learning in [REDACTED], it is an opportune time for us to capture staff views and opinion regarding our effectiveness as a **Learning Organisation** - an organisation committed to developing a shared vision, leadership, collaboration and learning opportunities. In doing so, we are keen to embrace the Welsh Government's '*Schools as Learning Organisations*' model; a model which is being actively adopted by schools and the Welsh Government itself as an employer.

Please can I encourage you to complete the online survey below, to have your say on our effectiveness as a Learning Organisation, and to ensure your voice is heard in this respect as we move forward?

The survey, which should take approximately 10 minutes to complete, will also form part of a piece of doctoral research being carried out by one of our Education Service colleagues. There is a language selection drop down menu at the top of each screen, enabling you to move between English and Welsh. You will be asked 3 questions to establish your role in the service, but no other personal information will be sought and responses will be completely anonymous.

The survey can be completed on mobile devices, computers or laptops. Please follow the link to take the survey
https://bristolxppsycheu.qualtrics.com/jfe/form/SV_b9jbp68KWhNI2b3

The survey will be live until Wednesday the 24th of July.

Thank you in advance for your time and for sharing your views. Once complete, aggregate survey outcomes will be shared.

Kind regards,

SS

Rheolwr Partneriaethau & Perfformiad Addysg / Education Partnerships & Performance Manager (OM)

Appendix 11: Focus group proposal for EMT

Second CR-AR cycle: Focus groups

Using the outcomes from the survey as a springboard for discussion through focus groups.

The LO dimensions...

- A. Developing a shared vision centred on the learning of all learners
- B. Promoting and supporting continuous professional learning for all staff
- C. Fostering team learning and collaboration amongst staff
- D. Establishing a culture of enquiry, exploration and innovation
- E. Embedding systems for collecting and exchanging knowledge and learning
- F. Learning with and from the external environment and larger system
- G. Modelling and growing learning leadership

The data gathered through the survey suggests that as an organisation we are currently doing best in dimension C, with dimensions D and E closely behind. The data also suggests that the areas in which we need to improve most are B and G.

Purpose:

To engage colleagues in open dialogue and collective thought about mechanisms as barriers to, and mechanisms which support, the development of those characteristics of a LO.

Focus Groups:

3 or 4 groups

Ideal number of participants 4-5 per group. Invite 6 to each session, over recruiting to allow for those not able to attend.

Purposive sampling to ensure mixed groups from across the service and at all levels of the service and aim for homogeneity across groups

Recorded and transcribed

Activities:

Ice breaker - in pairs or groups of 3, physically place the dimensions in rank order from most important to least important. No right or wrong answer. Feedback your top ranking dimension and give your reasons. This is to remind the participants of the 7 dimensions and get them thinking about the LO elements.

Show participants the overall mean score graph for each dimension. Highlight the dimensions in which we scored more highly.

Activity - present the group with colour coded dimension data showing rank order of items by score. Ask the group to discuss each dimension (5 mins per dimension); consider what might be enabling those qualities of the LO and what might be the barriers to developing such qualities. Collectively agree on one or two elements for each dimension and write it on the sheet. Feedback taken after each dimension is discussed.

Once feedback has been taken for each dimension, participants are encouraged to add their ideas to the live feed slides through [menti.com](https://www.menti.com)

resources - white board
internet connection
3 x seven dimension cards
presentation slide with graph
A3 colour print out of colour coded rank order data for each dimension
pens and flip chart paper
[menti.com](https://www.menti.com)
dictaphone x2
camera
consent forms

Appendix 12: Email to all staff outlining focus groups

From: [REDACTED]
Sent: 26 November 2019 09:59
To: Education Management Team [REDACTED]
Cc: Hodgson, Anne [REDACTED]
Subject: Self Evaluation & Improvement - Learning Organisation Survey
Importance: High

Good morning all,

Thank you for your ongoing contributions to the self-evaluation process, which will be used to underpin the new Directorate Delivery Plan, in line with the ambitions of [REDACTED]. A key aspect of this self-evaluation process is engagement with our workforce and as you are aware, we have chosen to use the 'Learning Organisation' model as one means of involving staff, supported by Anne Hodgson.

A message from Anne is below, to invite staff to join a focus groups on either the 10th or 17th December, to explore the findings of the recent Learning Organisation survey.

From Anne:

*Can I thank all those who completed the **Learning Organisation** survey in July this year. We had a really great response! The data has been drawn together and we will be producing a report to share with you all soon.*

In the meantime, we would like to invite expressions of interest to participate in one of our focus group sessions to explore some of the findings in more detail. This will be an opportunity to engage with a small group of colleagues from across the Education Service to explore what is enabling us to develop those characteristics of a learning organisation and what may be causing barriers to us doing so. Participation would require just an hour of your time and would support the service's ongoing work in workforce development, self-evaluation and employee participation and engagement as well as forming part of a colleagues doctoral research.

Please can you identify team members to join either or of the focus groups, and respond to Anne directly, using the Invite from attached no later than Wednesday 4th December.

Many thanks

[REDACTED]
[REDACTED]
Rheolwr Partneriaethau & Perfformiad Addysg / Education Partnerships & Performance Manager (OM)
[REDACTED]

Appendix 13: Participant Information

Participant Information

Learning Organisation focus groups

Many thanks to all those colleagues who were able to complete the Learning Organisation survey back in July. Following on from the survey we wish to explore your views in more depth and invite you to participate in some small focus group discussions. These focus group sessions form part of a doctoral research project which aims to bring together and explore our ideas about developing learning, leadership and collaborative practices that could support our organisation to become a learning organisation. The co-constructed ideas and reflections generated from your discussions will be reflected upon in the Education Service's self-evaluation and in our workforce development planning.

We would ask you to read the following information before deciding whether to take part in the focus groups. Please feel free to talk about your participation with others and don't hesitate to speak to the researcher, using the contact information at the end of this sheet, if you have any further questions.

Why am I being asked to take part?

As a colleague working within [redacted] Council's Education Service we would like to hear your views and ideas about developing professional practice and ethos within the organisation.

What is involved?

We would like to invite you to take part in a focus group. This will be a small group discussion involving colleagues from across the Education Service, will last no longer than 1 hour and will take place at County Hall during working hours. The focus group questions will explore your views and ideas around practices within our organisation. Specifically, we will be exploring the Learning Organisation model put forward by the Welsh Government, which identifies 7 dimensions of practice...

- A. Developing a shared vision centred on the learning of all learners
- B. Promoting and supporting continuous professional learning for all staff
- C. Fostering team learning and collaboration amongst staff
- D. Establishing a culture of enquiry, exploration and innovation
- E. Embedding systems for collecting and exchanging knowledge and learning
- F. Learning with and from the external environment and larger system
- G. Modelling and growing learning leadership

If you take part in the focus group, snacks and refreshments will be provided on the day.

Do I have to participate?

Participation in the research is, of course, entirely voluntary. You must feel free to end your participation at any time and without needing to give any reason; this applies even if the focus group has already started. If for any

reason you feel uncomfortable, you can of course leave. If you do decide to participate you will be given this information sheet to keep and a copy of the signed consent form.

Will the focus group be recorded and how will these recordings be used?

If you are happy for the focus group to be recorded, we will make an electronic audio recording. The recording will only be available to the researcher and their supervisors and it will only be used to allow the preparation of typed notes. Whilst these typed notes are being prepared, the recordings will be stored in a secure Google drive and only the researcher and transcriber will have access to the recordings. The electronic recordings will be destroyed at the end of the research project.

How will information about me be used?

The ideas and information gathered through these focus groups will be used within the service to contribute towards our self-evaluation and workforce development planning. These groups are an opportunity for you to contribute toward developing ideas and shaping practice within the service for the future. The information gathered will also form part of a doctoral research project and as such the outcomes of this research may be published externally in a journal, on a website or via a conference presentation. Your personal details will be kept strictly confidential and your name will be removed in any work published as a result of this research. However, we may want to be able to refer to the positions and some aspects of the identities of those who are involved. You can decide whether or not to give us permission to do this. Before you take part in the research, we will ask you to fill in a consent form. On this form you can tell us how you want us to use your data. We will not use your name in any publications that result from this research. With your permission, however, we may use anonymised quotes.

What are the benefits and disadvantages of taking part?

We hope that you will find the process beneficial as an opportunity to reflect on your experiences and share your ideas about ways in which we can improve practices within our organisation as well as having a chance to take part in a project that may help improve yours and other colleagues' experiences. The main disadvantage is the time taken to participate.

Ethical Review

This research has been ethically reviewed via the School of Education's Ethics Committee at the University of Bristol. If there is any aspect of the project, or your participation that you would like to discuss further, or feel you may need support with, please do not hesitate to get in touch with one of the key contacts listed below.

Timescale

The research is planned to take place between the 1st and 20th of December with the outcomes of the project to be included in a report submitted to the Education Management Team by the end of March and a dissertation completed and submitted to the Graduate School of Education at the University of Bristol by August 2020. We would be very happy to keep you informed about how the project progresses and the conclusions that are reached. If you wish to receive information, please get in touch with one of the key contacts listed below.

Key Contacts

Researcher

Name: Anne Hodgson

Email: [redacted]@[redacted].gov.uk

EMT lead officer

Name: [redacted]

Email: [redacted]@[redacted].gov.uk

Thank you for your time

Appendix 14: Email Invite with Qualtrics link

From: Hodgson, Anne [REDACTED]
Sent: 02 December 2019 09:11
To: Education - All Staff [REDACTED]
Subject: Learning Organisation Focus Groups

Good morning all,

Many thanks to those who have volunteered to take part in the upcoming focus groups. Some people have raised that they are finding the word doc difficult to populate, so I have created the form online for your convenience.

These groups are open to **all** education staff and will only take **1 hour** of your time. If you are able to join us for one of the sessions, it would be very much appreciated.

Please follow the link to complete the quick form https://bristolexppsych.eu.qualtrics.com/jfe/form/SV_eLqcPN3uXHsm3KR

Kindest regards
Anne

Anne Hodgson

Arweinydd Tîm | Tîm Cymorth Awtistiaeth | Gwasanaeth Addysg
Team Leader | Autism Support Team | Education Service



Appendix 15: Participant confirmation email

From: Hodgson, Anne

Sent: 06 December 2019 14:40

To: [REDACTED]

Subject: LO Focus Group - Tuesday 10th

Hi [REDACTED]

Enormous thanks for agreeing to participate in the focus group next week. This is just a reminder that your session will be taking place on **Tuesday 10th December** from **09:00 - 10:00** in the [REDACTED], in county hall.

You don't need to bring anything with you (just your ideas 😊) and I'm attaching the participant information sheet again, just in case you want another opportunity to read through it.

I look forward to seeing you there.

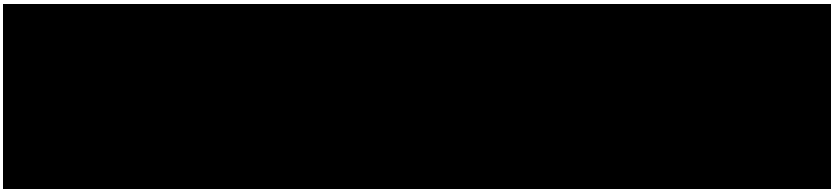
Best wishes

Anne

[Anne Hodgson](#)

Arweinydd Tîm | Tîm Cymorth Awtistiaeth | Gwasanaeth Addysg

Team Leader | Autism Support Team | Education Service



Appendix 16: Participant consent form

Education Service

Consent form

Learning Organisation focus groups

Please initial box

I have read and understand the participant information and have had answers to my questions that I am happy with.

I understand that my participation is voluntary and that I am free to withdraw at any time, without giving reason

If I withdraw from the study I understand that any anonymised data collected from me up to this point will be kept.

I understand that I have the right to refuse to answer any question or discuss any topic that I do not want to talk about.

I give my permission for the interview/ discussion to be audio-recorded. I also understand that the audio-recording will be destroyed at the end of the project and the transcript will be archived.

I agree to the use of anonymised quotes made by me in publications

I agree to take part in the focus group discussion.

Participant's signature:

Date:

Facilitator's signature:

Date:

Appendix 17: Mentimeter® interactive presentation

Go to www.menti.com and use the code **94 97 3**

EDUCATION SERVICE - THE CONTEXT

- Workforce development
- Self-evaluation
- Learning organisation
- Employee participation and engagement sessions

Go to www.menti.com and use the code **94 97 3**

- A. Developing a shared vision centred on the learning of all learners
- B. Promoting and supporting continuous professional learning for all staff
- C. Fostering team learning and collaboration amongst staff
- D. Establishing a culture of enquiry, exploration and innovation
- E. Embedding systems for collecting and exchanging knowledge and learning
- F. Learning with and from the external environment and larger system
- G. Modelling and growing learning leadership

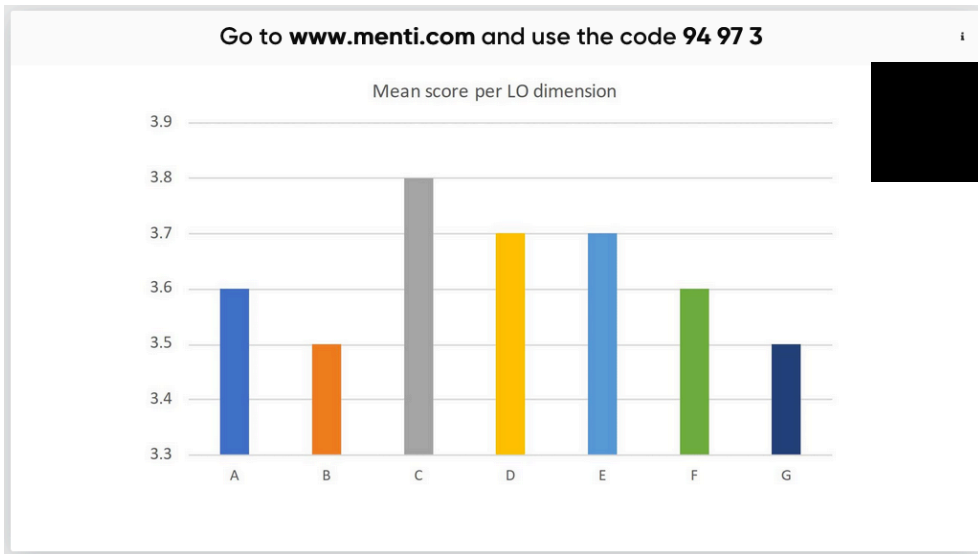
Cardiff Education as a Learning Organisation

Go to www.menti.com and use the code **94 97 3**

place the LO dimensions in order of importance

- | | |
|------------|---|
| 1st | Developing a shared vision centred on the learning of all learners |
| 2nd | Promoting and supporting continuous professional learning for all staff |
| 3rd | Fostering team learning and collaboration amongst staff |
| 4th | Establishing a culture of enquiry, exploration and innovation |
| 5th | Embedding systems for collecting and exchanging knowledge and learning |
| 6th | Learning with and from the external environment and larger system |
| 7th | Modelling and growing learning leadership |

 0



Go to www.menti.com and use the code **94 97 3**

What is helping us develop towards being a LO?

0

Go to www.menti.com and use the code **94 97 3**

What are the barriers to us developing these qualities?

0

Appendix 18: Heat map of mean scores

A6. Team action plans and projects are designed with the vision and goals in mind	4
A2. The vision and goals emphasise preparing pupils for their future in a changing world	3.94
A1. We are involved in developing the Education Service's vision and goals	3.76
A3. The vision and goals are inclusive of all pupils	3.74
A5. We are inspired and motivated to bring the vision to life	3.62
A7. Other departments within the council are invited to contribute to the Education Service's vision and goals	3.52
A10. External partners are invited to help shape the Education Service's vision and goals	3.43
A4. The vision and goals are understood and shared by all staff working in the Education Service	3.43
A8. Pupils are invited to contribute to the Education Service's vision and goals	3.36
A9. Parents / carers are invited to contribute to the Education Service's vision and goals	3.17

B3. We are involved in identifying the objectives for our professional learning	3.95
B2. We engage in professional learning to update our knowledge and skills and challenge work practices	3.85
B4. Professional learning is aligned to the Education Service's vision	3.71
B1. The professional learning and development of staff is considered a high priority	3.6
B10. Service users, including pupils, parents / carers and schools are encouraged to give feedback to the Education Service	3.52
B9. Beliefs, mindsets and practices are challenged by professional learning	3.48
B8. We have opportunities to experiment with and practise new skills	3.45
B5. All staff receive sufficient support to help them in a new role (new employee / new role)	3.38
B7. We receive regular feedback to support reflection and improvement	3.29
B6. Mentors / coaches are available to help staff to develop their practice	3.08

C4. We treat each other with respect	4.12
C3. We feel comfortable seeking advice from others	4.11
C6. We listen to each other's ideas and opinions	3.95
C5. We are open and honest with each other	3.87
C7. We think through and tackle problems together	3.76
C8. We reflect together on how to learn and improve our practice	3.72
C2. We are encouraged to work together as teams and across teams	3.71
C1. We have opportunities to collaborate and learn from each other	3.66
C9. Conflicts are mediated effectively	3.34

D2. We are encouraged to take initiative	3.94
D8. We discuss things that have worked as well as those that haven't in order to learn from them	3.87
D5. We engage in enquiry (i.e. pose questions, gather and use evidence to decide how to change practice, and evaluate impact)	3.79
D7. We are open to others questioning our approaches and ideas	3.76
D6. We are open to thinking and doing things differently	3.74
D4. We spend time exploring a problem before taking action	3.66
D9. Learning from new initiatives and innovation is disseminated successfully	3.48
D1. We are encouraged to experiment and innovate	3.47
D3. We are supported when taking calculated risks	3.4

E1. We have a development plan based on learning from continuous self-assessment and updated at least once every year	3.79
E2. Structures are in place for regular dialogue and knowledge sharing among staff	3.75
E4. We analyse and use data to improve our practice	3.74
E3. Evidence is collected to measure progress and identify gaps in performance	3.66
E5. We use research evidence to improve / influence our work	3.64
E8. We regularly discuss and evaluate whether actions had the desired impact and change course if necessary	3.64
E6. We analyse examples of good / great practices and failed practices to learn from them	3.62
E7. We have opportunities to learn how to analyse and use data to inform our practice	3.4

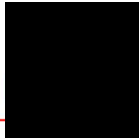
F2. We collaborate, learn and share knowledge with service users, including pupils, parents / carers and schools	3.8
F3. We collaborate, learn and share knowledge with social and health services to better respond to pupils' needs	3.66
F5. We collaborate, learn and share knowledge with other external partners	3.64
F7. We are involved in and support school-to-school networks or collaborations	3.59
F1. External opportunities and challenges are monitored continuously to inform our work	3.42
F4. We collaborate, learn and share knowledge with higher education institutions to deepen staff and pupil learning	3.39
F6. External consultation/ engagement to explore different policy options are effective and informative	3.39

G2. Leaders support staff to take responsibility for their own learning and development	3.79
G5. Staff are given opportunities to participate in decision making and lead on areas of work	3.67
G9. Leaders ensure that all actions are consistent with the service's vision, goals and values	3.62
G1. Leaders value and support innovative solutions	3.55
G3. Leaders celebrate success	3.53
G10. Leaders model effective collaborations with external partners and key stakeholders	3.49
G6. Leaders provide opportunities for service users, including pupils, parents / carers and schools to participate in decision making	3.48
G7. Leaders encourage learning opportunities, irrespective of the final result i.e. learning from mistakes is acceptable	3.47
G4. Leadership is fostered and developed in staff across the service	3.28
G8. Leaders are open to others questioning their beliefs, opinions and ideas	3.24

Appendix 19: Mentimeter® data - live concept wall capture

Focus Group 1

What is helping us develop towards being a LO?



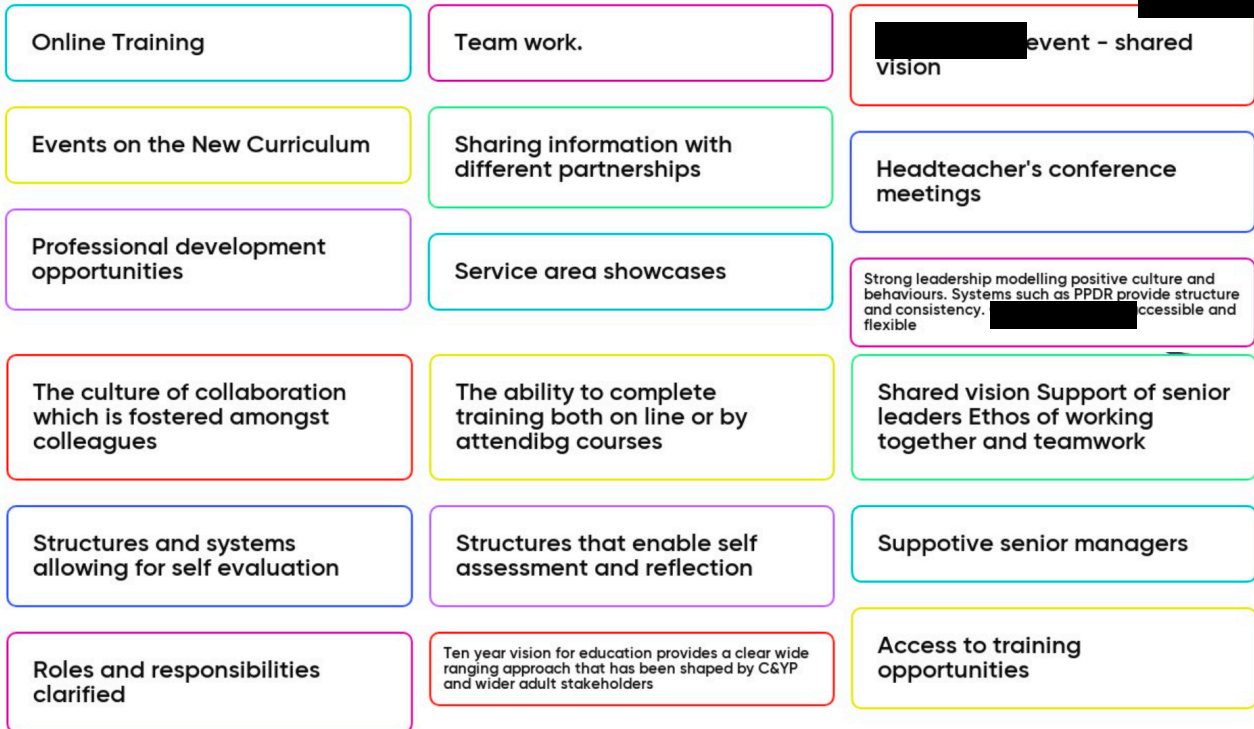
Clear line of sight	Regular team meetings.	PPDR
Clear vision	Regular team meetings	Objectives are linked
Trust in line managers	Team leaders having the correct people management skills where they are approachable and supportive to new ideas from their colleagues.	Goals to achieve
Plans reflect directorate goals	Positive environment	We are encouraged to take initiative
Regular professional development and access to courses.	Public launches of new visions	Clear & frequent communication
we are responsible for our own development	Opportunity to develop	Opportunities for open discussions with line managers
clear goals and targets for the year.	Collaborative teams	Training platform available for schools
Projects designed with the vision	Opportunities to work and communicate with other teams	Information to be cascaded in a timely manner
Lack of interaction with senior leaders	Barriers in communication, particularly with senior leaders	Need more professional mentors
Time for team meetings to effectively move things forward.	Opportunities to work with different teams in a meaningful way to build relationships across teams	

What are the barriers to us developing these qualities?

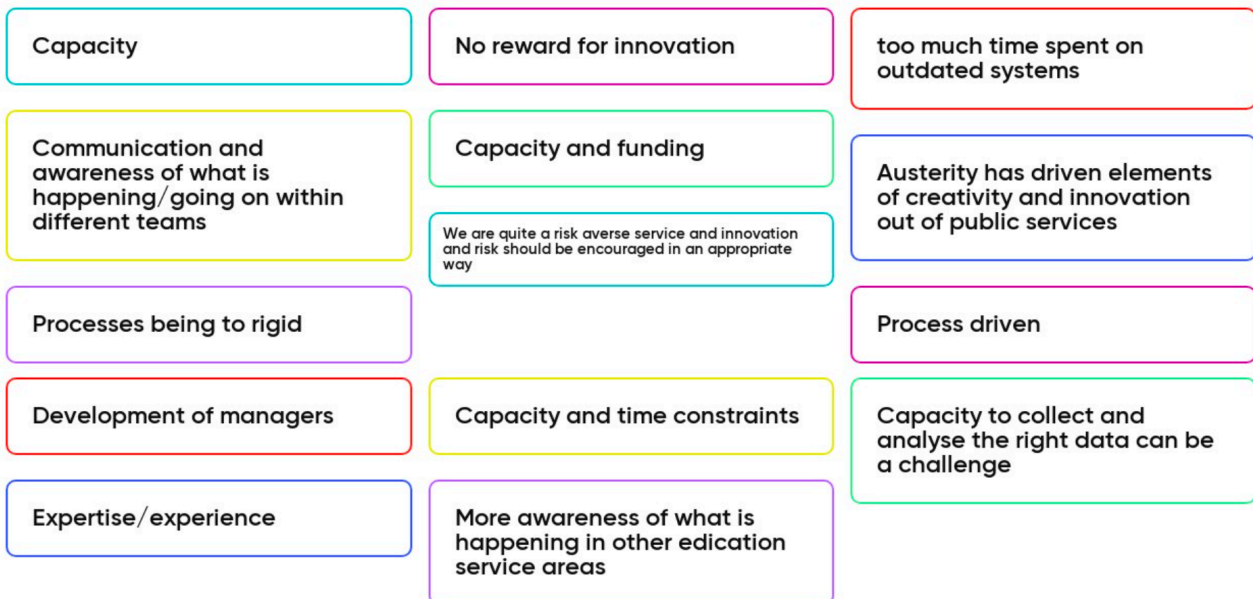


Focus Group 2

What is helping us develop towards being a LO?



What are the barriers to us developing these qualities?



Focus Group 3

What is helping us develop towards being a LO?

Personal review meetings every 6 months	A strong emphasis on personal reviews (including quality and compliance)	More contact time with managers
Team meetings Monday am every fortnight	Collaborative working with other teams	Inclusion service meetings every term
Departments have to work together to complete projects (organic collaboration)	Increasing opportunities for personal development	Regular team meetings
Sharing of information on emails and intranet	Attending regular team meetings	Accountability
Regular whole service meetings/regular senior mgmt workshops	Respect for each others role	A strong ethos of working together
Feeling part of the the 'bigger picture' ie working with others for greater outcome	Understanding of team working	

What are the barriers to us developing these qualities?

Time	Potential "them and us" environment	Lack of systems in place to include parents
Not supported enough	Money - budget	Time limitations for mentoring
Lack of resource (time, financial, experptise) to devlop/access mentors and coaches	Unapproachable leadership	Public sector risk averse environment
Accountability prevents risk taking	Time restraints	New teams less skilled
Lack of mediation for conflict resolution	Focus on mitigating short term losses without recognising potential long term gains	Poor systems for data collection and analysis. One Group may improve this.
Political structure within LG can restrict constructive criticism and critical thinking	Time to meet and learn from other organisations e.g. health or other authorities.	Leaders asking for feedback on teams performance.

Appendix 20: Comparison of dimension items by mean vs frequency distribution score

Each dimension is shown twice with the data sorted by mean or distribution (see shaded column). Highlighted in pink or yellow are the items which change position in the order. Shows that this rarely impacted on highest scoring and lowest scoring items.

Dimension A	Mean	Median	Std. Deviation	% who somewhat agree or strongly agree	% who somewhat disagree or strongly disagree
A6. Team action plans and projects are designed with the vision and goals in mind	4	4	0.986	78%	9%
A2. The vision and goals emphasise preparing pupils for their future in a changing world	3.94	4	0.980	74%	8%
A1. We are involved in developing the Education Service's vision and goals	3.76	4	1.158	71%	17%
A3. The vision and goals are inclusive of all pupils	3.74	4	1.173	70%	19%
A5. We are inspired and motivated to bring the vision to life	3.62	4	1.112	64%	18%
A7. Other departments within the council are invited to contribute to the Education Service's vision and goals	3.52	3	0.941	50%	9%
A4. The vision and goals are understood and shared by all staff working in the Education Service	3.43	4	1.116	54%	23%
A10. External partners are invited to help shape the Education Service's vision and goals	3.43	3	0.968	42%	10%
A8. Pupils are invited to contribute to the Education Service's vision and goals	3.36	3	1.098	45%	19%
A9. Parents / carers are invited to contribute to the Education Service's vision and goals	3.17	3	1.077	34%	22%

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A9. Parents / carers are invited to contribute to the Education Service's vision and goals	3.17	3	1.077	34%	22%

Dimension B	Mean	Median	Std. Deviation	% who somewhat agree or strongly agree	% who somewhat disagree or strongly disagree
B3. We are involved in identifying the objectives for our professional learning	3.95	4	1.083	76%	13%
B2. We engage in professional learning to update our knowledge and skills and challenge work practices	3.85	4	1.128	73%	14%
B4. Professional learning is aligned to the Education Service's vision	3.71	4	1.106	63%	14%
B1. The professional learning and development of staff is considered a high priority	3.6	4	1.262	65%	22%
B10. Service users, including pupils, parents / carers and schools are encouraged to give feedback to the Education Service	3.52	4	1.162	52%	18%
B9. Beliefs, mindsets and practices are challenged by professional learning	3.48	4	1.119	53%	18%
B8. We have opportunities to experiment with and practise new skills	3.45	4	1.191	59%	24%
B5. All staff receive sufficient support to help them in a new role (new employee / new role)	3.38	4	1.112	54%	22%
B7. We receive regular feedback to support reflection and improvement	3.29	3	1.215	49%	27%
B6. Mentors / coaches are available to help staff to develop their practice	3.08	3	1.251	41%	38%

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B6. Mentors / coaches are available to help staff to develop their practice	3.08	3	1.251	41%	38%

Dimension C	Mean	Median	Std. Deviation	% who somewhat agree or strongly agree	% who somewhat disagree or strongly disagree
C4. We treat each other with respect	4.12	4	0.989	81%	9%
C3. We feel comfortable seeking advice from others	4.11	4	0.897	83%	6%
C6. We listen to each other's ideas and opinions	3.95	4	1.023	75%	10%
C5. We are open and honest with each other	3.87	4	1.050	71%	13%
C7. We think through and tackle problems together	3.76	4	1.076	69%	15%
C8. We reflect together on how to learn and improve our practice	3.72	4	1.177	66%	18%
C2. We are encouraged to work together as teams and across teams	3.71	4	1.150	67%	20%
C1. We have opportunities to collaborate and learn from each other	3.66	4	1.126	66%	20%
C9. Conflicts are mediated effectively	3.34	3	1.151	44%	20%

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C8. We reflect together on how to learn and improve our practice	3.72	4	1.177	66%	18%
C1. We have opportunities to collaborate and learn from each other	3.66	4	1.126	66%	20%
C9. Conflicts are mediated effectively	3.34	3	1.151	44%	20%

Dimension D	Mean	Median	Std. Deviation	% who somewhat agree or strongly agree	% who somewhat disagree or strongly disagree
D2. We are encouraged to take initiative	3.94	4	1.106	76%	13%
D8. We discuss things that have worked as well as those that haven't in order to learn from them	3.87	4	1.056	71%	13%
D5. We engage in enquiry (i.e. pose questions, gather and use evidence to decide how to change practice, and evaluate impact)	3.79	4	0.985	70%	11%
D7. We are open to others questioning our approaches and ideas	3.76	4	1.014	67%	11%
D6. We are open to thinking and doing things differently	3.74	4	1.033	66%	13%
D4. We spend time exploring a problem before taking action	3.66	4	1.132	65%	18%
D1. We are encouraged to experiment and innovate	3.47	4	1.197	58%	24%
D9. Learning from new initiatives and innovation is disseminated successfully	3.48	4	1.174	53%	22%
D3. We are supported when taking calculated risks	3.4	4	1.217	52%	23%

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D1. We are encouraged to experiment and innovate	3.47	4	1.197	58%	24%
D3. We are supported when taking calculated risks	3.4	4	1.217	52%	23%

Dimension E	Mean	Median	Std. Deviation	% who somewhat agree or strongly agree	% who somewhat disagree or strongly disagree
E1. We have a development plan based on learning from continuous self-assessment and updated at least once every year	3.79	4	1.198	69%	16%
E2. Structures are in place for regular dialogue and knowledge sharing among staff	3.75	4	1.129	70%	18%
E4. We analyse and use data to improve our practice	3.74	4	1.092	69%	15%
E3. Evidence is collected to measure progress and identify gaps in performance	3.66	4	1.139	64%	17%
E8. We regularly discuss and evaluate whether actions had the desired impact and change course if necessary	3.64	4	1.135	61%	18%
E5. We use research evidence to improve / influence our work	3.64	4	1.085	60%	15%
E6. We analyse examples of good / great practices and failed practices to learn from them	3.62	4	1.086	59%	15%
E7. We have opportunities to learn how to analyse and use data to inform our practice	3.4	4	1.170	52%	24%

Dimension E	Mean	Median	Std. Deviation	% who somewhat agree or strongly agree	% who somewhat disagree or strongly disagree
E2. Structures are in place for regular dialogue and knowledge sharing among staff	3.75	4	1.129	70%	18%
E1. We have a development plan based on learning from continuous self-assessment and updated at least once every year	3.79	4	1.198	69%	16%
E4. We analyse and use data to improve our practice	3.74	4	1.092	69%	15%
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E7. We have opportunities to learn how to analyse and use data to inform our practice	3.4	4	1.170	52%	24%

Dimension F	Mean	Median	Std. Deviation	% who somewhat agree or strongly agree	% who somewhat disagree or strongly disagree
F2. We collaborate, learn and share knowledge with service users, including pupils, parents / carers and schools	3.8	4	0.973	71%	13%
F3. We collaborate, learn and share knowledge with social and health services to better respond to pupils' needs	3.66	4	1.022	64%	14%
F5. We collaborate, learn and share knowledge with other external partners	3.64	4	1.052	63%	14%
F7. We are involved in and support school-to-school networks or collaborations	3.59	4	1.115	54%	14%
F1. External opportunities and challenges are monitored continuously to inform our work	3.42	3	1.003	47%	16%
F4. We collaborate, learn and share knowledge with higher education institutions to deepen staff and pupil learning	3.39	4	1.181	52%	20%
F6. External consultation/ engagement to explore different policy options are effective and informative	3.39	3	1.035	45%	16%

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Dimension G	Mean	Median	Std. Deviation	% who somewhat agree or strongly agree	% who somewhat disagree or strongly disagree
G2. Leaders support staff to take responsibility for their own learning and development	3.79	4	1.006	69%	10%
G5. Staff are given opportunities to participate in decision making and lead on areas of work	3.67	4	1.161	64%	16%
G9. Leaders ensure that all actions are consistent with the service's vision, goals and values	3.62	4	1.081	58%	12%
G1. Leaders value and support innovative solutions	3.55	4	1.111	61%	19%
G3. Leaders celebrate success	3.53	4	1.197	60%	20%
G10. Leaders model effective collaborations with external partners and key stakeholders	3.49	3	1.054	50%	13%
G6. Leaders provide opportunities for service users, including pupils, parents / carers and schools to participate in decision making	3.48	4	1.119	51%	17%
G7. Leaders encourage learning opportunities, irrespective of the final result i.e. learning from mistakes is acceptable	3.47	4	1.054	52%	17%
G4. Leadership is fostered and developed in staff across the service	3.28	3	1.141	47%	25%
G8. Leaders are open to others questioning their beliefs, opinions and ideas	3.24	3	1.140	45%	24%

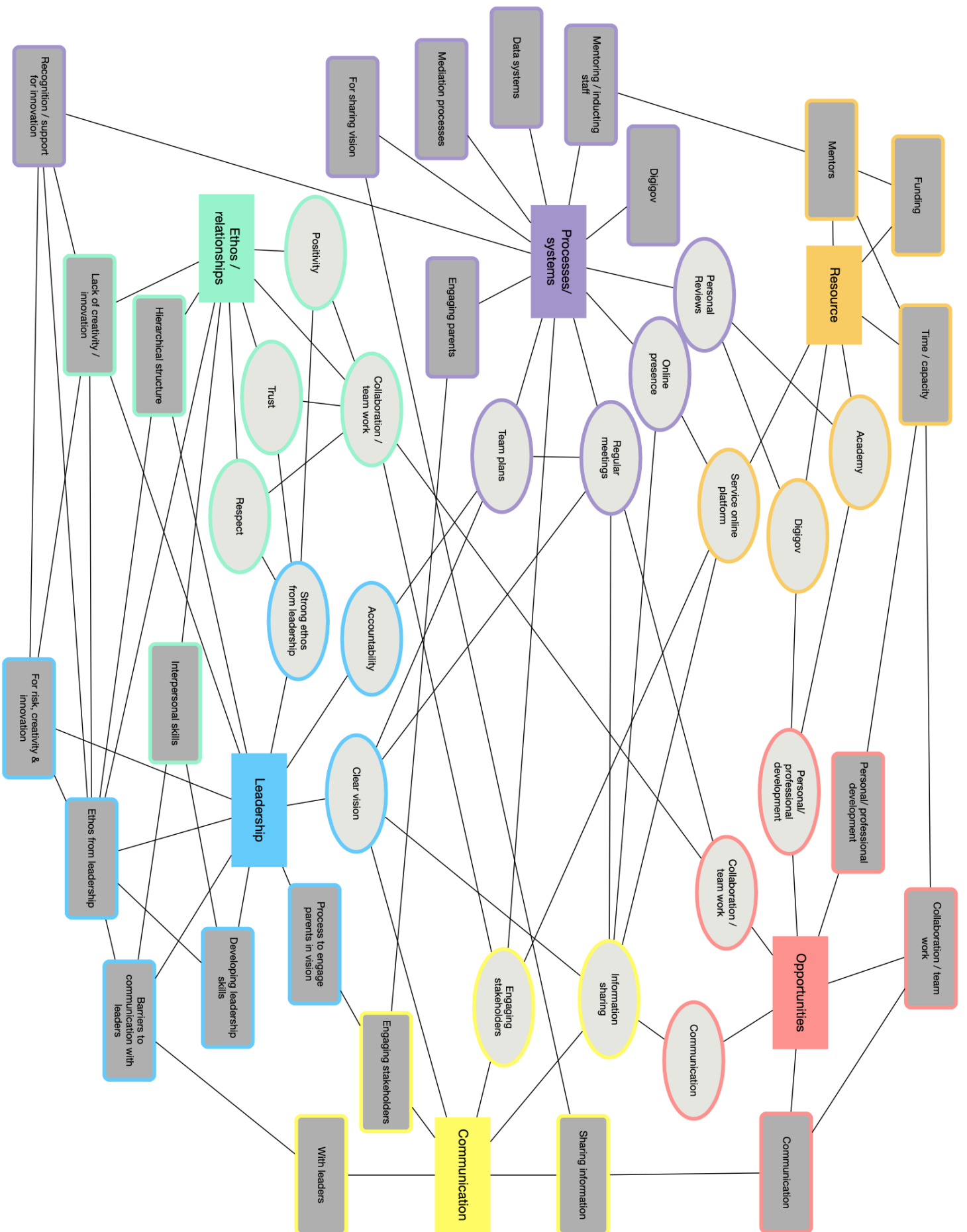
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Appendix 21: Intensive data - first and second level themes

second level theme	Communication	Ethos / relationships	Leadership
first level themes	information sharing engaging stakeholders communication with leaders communication with partners	collaboration / teamwork positivity trust respect hierarchical structure interpersonal skills lack of creativity or innovation	accountability clear vision positive leadership barriers to communicating with leaders developing leadership systems for engaging parents ethos from leadership leadership for risk, creativity and innovation

second level theme	Opportunities	Processes	Resource
first level themes	for collaboration / teamwork for communication personal professional development	meetings personal reviews team plans data systems engaging parents / carers for sharing vision mentoring / inducting staff mediation recognition / support for innovation	time / capacity funding mentors Academy online online service platform digigov

Appendix 22: Concept Map



Appendix 23: Ethics Form

Name(s): **Anne Hodgson**

Proposed research project: ***Leading for change in a local authority Education Service; critical realist action research exploring a learning organisation framework for whole system change***

Proposed funder(s): **none**

Discussant for the ethics meeting: Daniela Pino and Aminath Shiyama

Name of supervisor: **Leon Tikly**

Has your supervisor seen this submitted draft of your ethics application? **N**

RESEARCH SUMMARY:

Aims and purpose of the research

In my role within the local authority (LA) Inclusion Service, my time is spread across regional work, central LA work, city-wide work across schools, work with colleagues in health and children's services, work with individual classroom teachers and Additional Learning Needs Coordinators and work with individual children and their families. From these experiences I have become increasingly interested in the concept of the education *system* and the LA's role within whole-system collaboration and engagement with change. Over the last decade, systems theory perspectives have had an increasing influence in education in Wales, evident in Wales' adoption (and adaptation) of the systems leadership model, self-improving schools framework and professional learning communities approaches. Language influenced by systems thinking can be seen woven into various policy documents, with an increasing focus on the notion of 'the system', 'system leadership' and a 'systems view'. In response to the current climate of major policy reform in Education in Wales the Welsh Government and OECD have developed the *Schools in Wales as Learning Organisations* (SLO) model focusing on collaborative, whole-system change and leadership for change. The model aims to be a significant step towards shifting professional culture and empowering the system to learn and thrive (W. Government, 2017c; Kools & Stoll, 2016; OECD, 2018).

The application of the LO theoretical framework to education appeals to my interest in education as a whole system; systemic change, leadership and collaboration. Despite the theoretical underpinnings of systems theory, which acknowledges the interconnected nature of complex systems and their ability to generate learning and change through those internal and external connections; the call for agents to engage with a sense of responsibility for the system as a whole; and the myriad of frameworks which acknowledge that leadership for change exists within all facets of the system; the model developed by the Welsh Government and OECD focuses on one part of that system. This narrow focus on schools presented by the Welsh Government and OECD's SLO model, whilst purporting to be supportive of whole system change and reform, identifies "*supporting stakeholders*" almost as afterthought (seen in the outer band fig. 1.4). Despite developing the model with a focus on schools, the OECD (2018) calls for "*all schools and other parts of the system to develop into learning organisations*" (OECD 2018b: 57). In response, the WG has committed to becoming a learning organisation and continues to work with the OECD to develop the model for central government; what is referred to in the Welsh Education system as Tier 1.

Aims

This research aims to consider the value of the Learning Organisation (LO) framework underpinning the Welsh Government and OECD's *Schools in Wales as Learning Organisations* (SLO) model for a middle tier (Tier 2) organisation; a local authority Education Service. The research will explore how the local authority Education Service can use the Welsh Government and OECD's SLO model to assist in the development of systems thinking and improve strategic approaches to collaboration and system-wide engagement. A secondary aim of the research will be to develop and adapt the LO model for the context of our Tier 2 Education Service.

Objectives

This research will first engage in a critical review of the theoretical literature pertaining to the LO frameworks and their application to education. This will include consideration of the complexity and systems theory literature, and leadership frameworks with a focus on educational change. The research aims to apply an existing model developed for schools to a different context, that of a local authority Education Service. Therefore, the research will undertake an exploration of the local authority context and consider the potential relevance of the LO model in the current reform climate. Given that this is insider action research, the exploration will also include placing the researcher within the context of the LA and offer a reflexive critique. Using a critical realist action research framework the research will engage in an iterative research process, using multiple methods, to explore the application of the LO framework to a Tier 2 organisation in order to improve understanding and practice. Consideration will be given to the possible implications of the findings in this study for other Tier 2 organisations and the wider education system in Wales.

Initial research questions

- How can we, as a Tier 2 organisation, develop towards becoming an LO to improve our practice?
- What are the barriers to the organisation making those improvements?
- What are the affordances to the organisation making those improvements?

Research Design

Using a critical realist participatory action research framework, this research will engage in an iterative cyclical of “conception and application” (Edwards, O'Mahoney, and Vincent 2014a: 13) using multiple methods, to explore the implementation of the LO framework to a Tier 2 organisation in order to improve understanding and practice. Two key cycles of research will enable the researcher to work alongside participants to explore the use of the LO framework within a Tier 2 organisation. The participatory nature of this action research is an essential feature, as it is through the collective process of planning, acting, observing and reflecting that we will understand and impact upon our own practice, as well as the practice of others.

	Survey (QUAN)	Focus Groups (QUAL)
plan	survey development... <ul style="list-style-type: none"> • LO theoretical frameworks • Welsh Government context for SLO • OECD's report on survey to schools • brief outline of SLO model and research purpose presented to Education Management Team (EMT) • piloting - through iterative process of survey development with EMT colleagues, including presentation to Education Management Forum (wider group) to outline research and further draft survey • agree approach to administering survey, including language, i.e. needs to be bilingual, anonymity, sample boundary, consent, data storage 	using the analysis from the survey findings... <ul style="list-style-type: none"> • select groups for focus group discussion • approach through service managers and team leaders • email to outline purpose, anonymity and consent organise focus group sessions. consider... <ul style="list-style-type: none"> • length of session • location • purpose and approach (present with key survey findings. explore barriers and affordances) • resources needed, including and visuals for stimulation and a reiteration of consent form
act	<ul style="list-style-type: none"> • create final survey online using Qualtrics • develop clear guidance regarding consent and anonymity • get survey translated into Welsh • administer survey via link in an email 	focus groups <ul style="list-style-type: none"> • introduce purpose of session, anonymity, process of sharing summary of discussion / views and gain consent • outline the LO 7 dimensions • ask participants to rank order in terms of how they think the service is currently performing in each area • present key survey findings • lead group discussion around barriers and affordances
observe	analyse data <ul style="list-style-type: none"> • return rate • validity • significance 	<ul style="list-style-type: none"> • capture themes of discussions • visual maps of key points made, consider using a digital word cloud tool, such as menti.com

reflect	<p>alongside colleagues in EMT, reflect upon findings in relation to the 7 dimensions...</p> <ul style="list-style-type: none"> • in which areas are we doing well / better? • in which areas are we facing the most challenge? • do the views of participants correlate with service area / hierarchy / type of role? 	<ul style="list-style-type: none"> • challenges / limitations of the process (such as engagement, dynamics) <p>thematic analysis of focus group discussions to elicit...</p> <ul style="list-style-type: none"> • colleagues' views of the 7 dimensions of LO • barriers or affordances arising as themes <p>consolidate views and analysis to formulate...</p> <ul style="list-style-type: none"> • overall reflection of the LO as it pertains to the LA education service • summary of findings • views of participants with regards to the 7-dimension model • revised LO concept map for the LA Education Service to take forward
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Ethical issues discussed and decisions taken:

1. *Researcher access*

As a piece of insider research, that is that I am carrying out research in my place of work, access to relevant participants is not hugely problematic. The research aims explore how the local authority Education Service can use the Welsh Government and OECD's SLO model to assist in the development of systems thinking and improve strategic approaches to collaboration and system-wide engagement. As such, the data collection will involve practitioners within the Education Service and potentially representatives across the wider education system. My role situates me as a middle manager within the Education Service; as such I have connections across the service and wider education system. However, it will be important to reflect on existing relationships and not allow them to unfairly shape those participants selected or the way in which they are approached to participate.

In the first iteration of this action research (AR) all Education Service staff will be invited to participate and consent to participate, in a survey. Initially consent has to be gained from the Director of Education to implement a survey across the whole service. In order for this consent to be informed, presentations will be given to the Director of Education and wider Education Management Team, giving the context of the research, aims of the questionnaire and the intended use of the data. At this point, as the researcher, I will need to be fully open about my interests in the SLO framework and how I feel engaging with this may help us. I will also need to be open to discussing the research with the Director of Education and Education management Team, including how the information will be used and what further iterations of data collection I think may be needed

2. *Power and participant relations*

As a member of the Education Service in which I am carrying out this research, the power and participant relations are significant factors. Within my approach to the Director of Education and wider Education Management Team, I am mindful of the hierarchical nature of the service and my place within that hierarchy. There are certain processes internally in terms of how someone in a middle management position (my post) approaches Education Management Team members. In order to secure an opportunity to present my research proposal to the Education Management Team I would first speak to my direct line manager, who sits as part of the EMT. With their agreement, the proposal would be listed to be discussed at a future Education Management Team meeting and I would be invited to attend.

A further point to note here, in relation to power relations, is the importance of ensuring the research discussion and outcomes are not shaped by any political agenda from within the service. For example, wishing to shape the discussion and presentation of the findings in terms of their reflection on the service or areas within the service. The research must be sensitive to the needs of individuals, teams and the whole service, in terms of ensuring anonymity, but must also be careful to ensure a fair and transparent reflection is given.

As insider research it is imperative that I consider my own views, beliefs or preconceptions, but also that I consider the interplay of my role as researcher and my role within the structure of the service. Within the first cycle of research, a survey to all Education Service staff, my role and relationships are unlikely to impact on participation or responses. The survey will be communicated to all education staff via email from the Director of Education and Education Management Team as something of interest to the service as a whole. However, although the second cycle will be shaped by the outcomes of the first cycle, at present it is planned that the second cycle use focus groups as a method to explore the views of participants; the participants for which may even extend beyond the 'boundary' of what I am defining as the Education Service and into the wider

education system. At this point, the impact of my personal and professional relationships with individual and groups of professionals will need to be acknowledged. Further consideration will need to be given to the way in which the group is managed through the discussion process, to ensure that all present are given an opportunity to share their views and are not having to compete for space within the discussion. This can take careful management and well-developed people-management and mediation skills. Within my professional role I often conduct challenging meetings in which there are differing and emotive views. As such, I feel equipped to manage such a forum.

3. Information for participants, Participant's right of withdrawal, Informed Consent, Complaints procedure, Safety and well-being of participants/researchers, Anonymity/confidentiality

The first process in terms of informing participants will be, as previously highlighted, ensuring that the Director of Education and his Education Management Team are making an informed decision with regards to the participation of the Education Service in the research as an organisation. A briefing paper outlining the SLO model and my research proposal, alongside the draft survey, will be presented to the Education Management Team to gain their approval to commence. Once consent to move forward is granted by the Director of Education and the wider Education Management Team, ensuring *all* participants are fully informed as to the purpose of the research and how any data gathered will be used is essential. Therefore, a more detailed presentation, including some extracts of key literature and accompanying Welsh Government documents, will be provided at a wider Education Management *Forum* meeting, which extends to all service leads and team leaders. I will be present and open to questioning and discussion with colleagues as the aim will be to ensure that all feel informed and confident to relay the key information back to their teams. It will be important here to ensure I make all colleagues aware that they can contact me to discuss any queries. This is to ensure that everyone feels comfortable with the research and approach, even if they do not feel confident to raise any concerns in the Education Management Forum.

The online survey will be sent to participants via a link embedded in an email. It will begin with an information sheet outlining the survey purpose, both in terms of the service and the research, the approach to anonymity and will require participants to give consent to participate before leading them to the questions. All survey responses will be anonymised and careful thought will be given to what identifying factors, such as what service areas within Education or the type of role held, are sought to enable for robust and valid analysis of the data is possible, whilst reassuring participants that individuals and individual teams won't be exposed. This balance will encourage responses and more open, honest responses to the survey. It will not be possible for participants to retrospectively withdraw from the survey as they will be collected with complete anonymity and I will have no way of knowing which response to withdraw. This will be made clear in the information sheet at the introduction to the survey and in the email invite sent to all participants.

During the second cycle of the action research focus groups are planned. It will be essential to ensure that individual participants are aware of the purpose of the planned discussions, how their views will be recorded, written up and presented. Again, participants must be ensured anonymity and reassured that they can withdraw from the research at any time and the process to enable them to do this, i.e. an email to the researcher requesting withdrawal. A clear outline of what the participants can expect will also be essential; identifying the expected length of time, the nature of what will be discussed and approaches to be used in the session. All of this information will be communicated to each individual participant in advance of, via email, and again during the data collection process, via written consent form.

Ensuring anonymity within the research analysis and discussion is likely to have significant implications. An overview of the recorded views and information gathered during the focus groups will be shared with participants prior to analysis to ensure they are happy with what was captured. However, there may be parts of the discussions within interviews or focus groups that are exposing in terms of a participant's role or team. Or perhaps something they disagree with in the summary. Therefore, there may be parts of discussions that are not able to be included in the analysis because of the potential implications for participants.

4. Collection, Analysis, Storage and Protection of the Data

The initial round of data collection is an online survey to all Education Service staff. This survey will be created using an online platform, such as Qualtrics, and made available to colleagues across the service via email. The majority of key systems within the Education Service are IT and web based, including our interface with schools, pupils' records, professional development and human resources tools and service request systems. Also, many of the service's staff are resourced for agile working as they are out in schools for much of the time. Therefore, I feel a web-based platform for the survey is likely to be most convenient for colleagues across the service and so illicit the best response rate. Initial response data will be stored online

within a secure Qualtrics accounts held under my university email address. Further data used during analysis will be held on my personal computer within a secure cloud-based data storage account. The data will be held for up to 5 years as per our council GDPR policy. However, it must be noted that none of the data will hold personal or identifiable information.

Analysis of the survey responses will shape and focus the next iteration of the research, and is likely to involve opportunities for focus group discussions. It will not be possible to include a question in the online survey to ascertain participant's willingness to engage with the focus groups as the survey's will be anonymous. Also, the findings from the survey will play a significant role in shaping the approach to the focus groups in terms of approach and participant selection.

Within the second cycle, the focus group format will be interactive and generative and key ideas will be captured by the group during the discussion. This is a format that many professionals within education are very familiar with, group discussions and explorations and generating summaries which capture the range of views expressed. The written information generated in the focus groups will be collated and all participants given an opportunity to review the data and make any suggestions for amendments. There may be some moral and ethical challenges here should participants make suggestions for amendments that I don't agree with. This process will need to be reflected upon carefully within the research.

The data generated by the focus groups will not be a transcribed, verbatim capture of each session, but an overall summary of the views of participants and the journey of the discussion. There will, therefore be no identifiable information within that data set. However, in order to consider the points raised in their fullest context, reflection may need to be given to the roles of those participants. For example, whether or not it is the view of a senior leader within the service, a middle manager or a head teacher in one of our schools. This context will, at times, be crucial to the discussion. Therefore, participants will be informed that their identifiers within the research will be by their role and will be given an opportunity to consider the reflection of those discussions before they are included in the research. This will ensure individuals feel the summary reflects accurately the discussion that took place, but also that they still consent to their views being used.

5. Feedback, responsibilities to colleagues/academic community and the Reporting of research

Feedback from this research project will need to be made accessible to the Education Service and wider education system. As the SLO model has been developed by the Welsh Government and they have called for all 3 tiers of the education system to work towards becoming an LO, committing publicly to becoming an LO themselves, there is likely to be wider interest in the outcomes of this research. Therefore, it will be important to ensure a range of vehicles for dissemination are considered, such as presentations at different forums, a report document and perhaps a brief report card outlining key findings. This will all need to be communicated bilingually. The information shared may not include the full CR AR analysis of the whole project, but a more succinct reflection on the staff survey findings, in the first instance. This will need to be discussed and agreed with the Director of Education and the wider EMT.

If you feel you need to discuss any issue further, or to highlight difficulties, please contact the GSoE's ethics co-ordinators who will suggest possible ways forward.

Signed: Anne Hodgson (Researcher)

Signed: Daniela Pino (Discussant) Date: 18.06.19

Signed: Aminath Shiyama (Discussant) Date: 23.06.19

Appendix 24: Confirmation of ethical approval

ID	Name	Faculty	Department	Supervisor
91903	Miss Anne Hodgson	Faculty of Social Sciences and Law	Graduate School of Education	Professor Leon Tikly

Status

Signed off

Date added

July 15, 2019

Signed off date

Nov. 19, 2019

Is this a student project?

Postgraduate Phd

Project title

Leading for change in a local authority education service; critical realist action research exploring a learning organisation framework for whole system change

Estimated start date

July 1, 2019

Duration (months)

6

Project outline

Aims This research aims to consider the value of the Learning Organisation (LO) framework underpinning the Welsh Government and OECD's Schools in Wales as Learning Organisations (SLO) model for a middle tier (Tier 2) organisation; a local authority Education Service. The research will explore how the local authority Education Service can use the Welsh Government and OECD's SLO model to assist in the development of systems thinking and improve strategic approaches to collaboration and system-wide engagement. A secondary aim of the research will be to develop and adapt the LO model for the context of our Tier 2 Education Service. **Objectives** This research will first engage in a critical review of the theoretical literature pertaining to the LO frameworks and their application to education. This will include consideration of the complexity and systems theory literature, and leadership frameworks with a focus on educational change. The research aims to apply an existing model developed for schools to a different context, that of a local authority Education Service. Therefore, the research will undertake an exploration of the local authority context and consider the potential relevance of the LO model in the current reform climate. Given that this is insider action research, the exploration will also include placing the researcher within the context of the LA and offer a reflexive critique. Using a critical realist action research framework the research will engage in an iterative research process, using multiple methods, to explore the application of the LO framework to a Tier 2 organisation in order to improve understanding and practice. Consideration will be given to the possible implications of the findings in this study for other Tier 2 organisations and the wider education system in Wales.

Files

Questionnaire/Survey [ethics/91903/celo-draft-questionnaire-june-2019-cymraeg.docx](#) (33.2 KB added on July 15, 2019)

Questionnaire/Survey [ethics/91903/celo-draft-questionnaire-june-2019-english.docx](#) (34.9 KB added on July 15, 2019)

Recruitment E-mail [ethics/91903/email-sent-out-with-survey-link.docx](#) (13.9 KB added on July 15, 2019)