

An exploration of “Schools as Learning Organisations” as a catalyst for school and system change

# AN EXPLORATION OF “SCHOOLS AS LEARNING ORGANISATIONS” AS A CATALYST FOR SCHOOL AND SYSTEM CHANGE

*An investigation into how schools become 'Learning Organisations' grounded in the context of the Leading Collaborative Learning Project with a large group of schools in Wales.*

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## Abstract

This research originated from a mixed methods approach to document the experiences, insights, and perceptions of system leaders involved in a national multi-school system-wide professional learning project, entitled, ‘Leading Collaborative Learning’.

This research addresses a central research problem identified by exploratory research questions and further refined in response to a review of the related and relevant literatures. In responding to this research problem, this thesis proposes a distinctive implementation model that incorporates its own impact indicators.

There are two main summative findings in this research:

**System conditions:** Five distinctive system conditions are identified as being necessary to sustain the momentum and pace of system-wide school improvement efforts, particularly when the system is faced with the unpredictable, turbulent, and unknown events of the modern world.

**Implementation model:** Two distinctive forms of expertise are identified from the data that bridge the implementation ‘gap’ between policy and practice.

The implications for these findings are of interest to policy makers, researchers, and practitioners. Suggestions are made as to how these areas should respond to the findings both now and in the future.

This thesis argues that for the Welsh SLO model to be a catalyst for school and system change, it needs to be realised at scale. For this to happen, a deliberate and intentional implementation model must be designed, developed, enacted and, importantly, incorporate its own success indicators.

This thesis concludes with a proposed implementation model for the Welsh SLO model that emerged from this research.

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## Declarations and Statements

This work has not previously been accepted in substance for any degree and is not being concurrently submitted in candidature for any degree.

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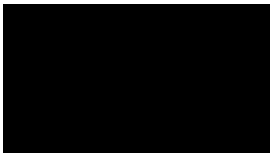
This thesis is the result of my own investigations, except where otherwise stated. Other sources are acknowledged by footnotes giving explicit references. A bibliography is appended.

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## Abbreviations and Acronyms

ALN – Additional Learning Needs

CfW – Curriculum for Wales

CoP – Communities of Practice

CPD – Continuing Professional Development

DW – Data Walls

D&R – Development & Research (the design of the LCL Project)

Estyn – Education and Training Inspectorate for Wales

IPO – Intentions-Purposes-Outcomes (the research framework)

INSET – In-Service Training

ITE – Initial Teacher Education

JPD – Joint Practice Development

LWT – Learning Walks & Talks

LCL – Leading Collaborative Learning

NAEL – National Academy for Educational Leadership

NAPL – National Approach to Professional Learning

PGCE – Post Graduate Certificate in Education

PISA – Programme for International Student Assessment

PL – Professional Learning

PLC – Professional Learning Communities

QTS – Qualified Teacher Status

R&D – Research and Development

SEND – Special Educational Needs and Disabilities

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SLO – Schools as Learning Organisations

WAGOLL - What A Good One Looks Like

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## Introduction

A personal rationale

My motivation for this research stems from 25 years of practice working in, with and alongside all settings and phases of schools and across different geographical and socio-economic areas of the educational system. This experience was underpinned by a deepening curiosity about the design, delivery, and sustainability of improvement strategies at school and system level.

This curiosity was the driving force for this thesis.

These years of practice formed a lens through which a plethora of first-hand experiences of national, regional, and individual school improvement strategies, programmes and experiences were viewed. These experiences informed a personal list of 7 ‘wants’, accompanied by 7 practices or perceptions that these ‘wants’ sought to replace:

1. *Wanting to...* design and embed professional learning opportunities in and between schools as *willing and valued* ‘investments’, tailored and responsive to the individual learning needs and learning experiences of all staff, non-teaching and teaching alike...

*Rather than...* a perception and definition of professional learning as generic, stand-alone, obligatory and, ultimately, as a ‘cost’.

2. *Wanting to...* design contextually relevant *internal* collaborative professional learning programmes informed by the specific learning needs of children and young people aligned to a shared, contextually responsive vision...

*Rather than...* disparate and disconnected *external* training programmes and events for individual staff to be adopted and integrated into existing established practices and systems.

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3. *Wanting to...* establish organisational norms where *continuous professional learning and continuous reflection*, is embedded in daily practice, understood, and articulated as, ‘just the way we do things around here’...

*Rather than...* professional development or training being viewed as additional and distinct to teacher and leader beliefs and daily practices.

4. *Wanting to...* build professional and organisational learning cultures that can last, grow, and evolve, and that are resilient and responsive to changing contexts over time...

*Rather than...* stand-alone initiatives expected to be replaced a couple of years later by the next ‘best thing’.

5. *Wanting to...* design creative and innovative modes of professional learning that are tailored to individual professional and student learning needs...

*Rather than...* adopting universal, generic programmes that are contextually unaware, unresponsive, and not suited to the context of the learners and wider community.

6. *Wanting to...* secure as much leadership value for all from daily practice, where *learning about, learning from and learning with* students, practitioners and leaders is integral to quality teaching and learning...

*Rather than...* leadership being individual, exclusive and positional and where innovation and leadership of change resides in the purview of a few.

7. *Wanting to...* broker, curate, share and systematically learn from practitioners across the wider system in an open and transparent culture of high trust and shared aims...

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*Rather than...* perpetuate individual team, organisational and system-wide silos where great practice has limited reach and is restricted to impact the few, rather than all, learners - professionals and children and young people alike.

This list of wants prompted me to think about research that was located deep within a policy context and that was characterised by widescale reform and a wholesale drive for system-wide improvement.

Serendipity took me to the context of the Welsh education system, with the opportunity to work on the evaluation of a national school improvement project, the ‘Leading Collaborative Learning Project’ (LCL) (Harris et al., 2022a).

The project and this thesis are immersed in the policy context in Wales. This research examined how one specific approach to school improvement and development, “*Schools in Wales as Learning Organisations*” (Welsh Government, 2017b) (The Welsh SLO model) was being enacted, received, and implemented. The policy context for this research was, therefore, integral to the conception and design of the research questions, the formulation of the research problem and the subsequent design of the study.

It is worth noting at this point that, as with most educational research, this research was always set to take place in a landscape of multiple and widescale reforms and change. The additional and significant contextual change-factors and disruptions experienced across the system caused by COVID-19, however, was unique. It affected every element of this research in multiple, novel, and unpredictable ways. The need to respond to these on-going and system-wide disruptions necessitated changes to, first, the direction and delivery mode of the LCL Project and second, because of these changes, necessitated significant flexibility and adjustments to the research design.

All the decisions, responses, changes, and adaptations that resulted from the external contextual factors of COVID-19 are identified and explained throughout this thesis at relevant and appropriate points. The significance and impact of these factors, the resulting

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decisions and adjustments were constantly factored into and documented as part of the research processes. These were also deliberately integrated into the findings and implications presented at the end of this thesis.

### The research questions

The focus for this research was grounded in *an exploration* of how far the Welsh SLO model was a ‘catalyst for school and system change’. This prompted several research sub-questions, and these scoped out the parameters for this doctoral work:

1. What are the origins of the “Schools in Wales as Learning Organisations” (The Welsh SLO) model within the wider policy context of reform in the Welsh Education System? (Chapter 1)
2. What are the origins of the generic Learning Organisation (LO) concept and how does this relate to the specific, ‘Schools as Learning Organisations’ (SLO) concept? (Chapter 2)
3. How do the relevant, related literatures and the wider evidence – the knowledge base - inform the concept of ‘Schools as Learning Organisations’ (SLO)? (Chapter 2)
4. What features of the knowledge base are reflected in the SLO concept and, specifically, the Welsh SLO model? (Chapter 2)

At this point, another question emerged from these sub-questions.

Having established the origins of the Welsh SLO model, its connection with the generic LO evidence base, and its relationship to the wider school reform and improvement literature, the challenge was then to ascertain the extent to which the specific Welsh SLO model was, or could become, a ‘catalyst’ for school and system change.



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At this point, the research problem (Biesta et al., 2019; Biesta, 2020) was identified. This provided a robust and coherent rationale for the research design as well as establishing both the scope and ambition of this thesis.

### The research problem

This research required a detailed exploration of the contemporary Welsh policy context to consider how and to what extent, the Welsh SLO model could be considered, ‘a catalyst for school and system change’. This identified the research problem at the core of the research questions.

The research problem was *initially* framed as a conditional ‘*If-Then*’ problem statement:

***Research Problem (original formulation)***

*‘If the Welsh SLO model is to be a catalyst for schools and system change, then how do policy makers and system leaders bridge the gap between policy and practice to realise the Welsh SLO model for it to become such a catalyst?’*

The research methodologies were selected as a direct response to this problem. They were organised into a generic evaluative framework of, ‘intentions’, ‘processes’ and ‘outcomes’ (IPO). This explored the Welsh SLO model through the lens of an active collaborative school improvement and professional learning project,

1. **Intentions** - How to communicate the aims, purposes and intended outcomes of the Welsh SLO model across a complex multi-layered education system during a time of significant and multiple policy reforms.
2. **Processes** - How to enable and sustain systems to mobilise knowledge about the Welsh SLO model across a diverse and complex national education system.

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3. **Outcomes** - What measures to look for and/or apply across the system to assess the impacts of the Welsh SLO model within the wider reform and change efforts.

The use of ‘intentions’, ‘processes’, and ‘outcomes’ (the IPO framework) as an organisational framework also shaped the design of this research, its selected methods, and data collection and analysis processes.

The research study – a national collaborative professional learning project

This PhD was part of a national collaborative two-year school improvement and professional learning project delivered between June 2019 and August 2021 the ‘Leading Collaborative Learning Project’ (LCL Project).

This system-wide project involved school teams and system leaders from across the four consortia regions of Wales (Welsh Government, 2014), working with an international academic and system leader as an external facilitator and school improvement expert.

The design of the LCL Project brought together project teams of a total of 93 school and system leaders to learn about, with, and from each other alongside the external facilitator. The expertise and insights of the cross-regional system leaders, school project teams and the external facilitator were intended to be shared for four 2-day blocks of in-person training sessions.

The collaborative professional learning approach was designed to draw upon existing knowledge and generate new knowledge across the system. This commitment to sharing and mobilising knowledge was a distinctive feature of the collaborative purpose, the design and delivery pedagogy of the LCL Project.

The original design of the LCL Project sought to capitalise on school-to-school, cross-regional and system-wide (horizontal and vertical) collaboration by designing this into the project from the outset.

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The widescale disruptions caused by COVID-19 necessitated significant changes to the original LCL Project design and modes of delivery. These disruptions and subsequent changes are detailed in Chapter 3 of this thesis and referenced throughout. This reflects the significant impact COVID-19 had on both the LCL Project and, subsequently, this research.

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## Chapter 1: The policy context (2009-2022)

The context for this research is the policy landscape of Wales from 2009 to the present day. This context identifies the underpinning principles and intentions of the “*Schools in Wales as Learning Organisations*”, (OECD & Welsh Government, 2018; Welsh Government, 2017b, the Welsh SLO Model, and its realisation in practice (*Appendix 1 - 1.2 Timeline of Welsh National Education policy publications*).

### The underlying principles of the education reform journey in Wales

The concept of the Welsh SLO model (Welsh Government, 2017b), emerged from several policies relating to school improvement, professional standards, curriculum reform and professional learning provided the policy context for the Welsh SLO model.

Tracing the development of the education policy context over the past decade, six underpinning policy principles were identified and explored. These policy principles were then mapped against the Welsh SLO model to identify its rationale, location, and alignment to the wider reform agenda in Wales.

*Figure 1: Six policy principles 2009-present day*

#### Principle 1 – Whole-scale commitment to a concerted, systemic drive for improvement

The 2009 PISA results were a catalyst for educational reform in Wales. The reforms were directed at delivering system-wide quality educational outcomes for all young people in Wales.

#### Principle 2 – A system-wide commitment to learning with and from beyond immediate context and settings

A sustainable and long-term relationship with the Organisation for Economic Cooperation and Development (OECD) was established, with the OECD working alongside Welsh educationalists and policy makers as international partners. This partnership engaged in self-assessment processes at all levels of the system to support the educational reform journey across Wales.

#### Principle 3 – Establish coherent system-wide support to achieve a self-improving system

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Systemic structural support and challenge processes were established for all system and school leaders. This provided guidance and expertise from local and regional sources.

### Principle 4 – Embrace holistic, collaborative whole-system ways of working

The wider system engaged in a comprehensive review and reform process, encompassing policies and practices across the education system, (teacher training, on-going professional development, curriculum and assessment reform and school leadership and accountability).

### Principle 5 – Place learners at the centre of reform

Curriculum reform became the central driver for system-wide educational reform processes. The ‘Four Purposes’ of the Curriculum for Wales (Welsh Government, 2015) for every learner were located at the heart of the new curriculum. Support was organised around schools to support them in their collaborative work to design, develop and deliver the new curriculum.

### Principle 6 – Encourage collaboration and establish coherence to build system capacity for teaching, learning and leadership

Schools and teachers were organised and facilitated to work collaboratively around the shared mission of curriculum reform. They were connected through professional learning and school improvement programmes that focused on pedagogy, curriculum design and assessment practices. This collaborative process brought together representatives from all levels of the system to co-construct and lead reform and self-evaluation processes, frequently supported by international experts.

## Mapping the six underpinning policy principles to the Welsh SLO model

### *Principle 1 – Whole-scale commitment to a concerted, systemic drive for improvement*

The publication of results from the Programme for International Student Assessment (PISA) for 15-year-olds in Wales in 2009 (Bradshaw et al., 2010; OECD, 2010b) acted as a catalyst for education reform and policy making in Wales for the next decade.

The 2009 PISA results revealed that 15-year-olds in Wales scored below average on all three measures, placing Wales below other countries in the UK and with this, showed a drop in performance from the previous 2006 PISA results (Bradshaw et al., 2006).

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The then Minister for Children, Education and Lifelong Learning, Leighton Andrews, AM, went on to outline the rationale and sense of urgency that the scale of systematic reform that underpinned the call for action,

*The young people of Wales have the same potential as young people across the world. We need to refocus on higher standards, set our ambitions and expectations high and look for improvement in every aspect of our system...Let me be clear – we need to address this as a matter of absolute urgency. It requires honesty, leadership and a new approach to accountability.*

(Andrews, 2010, Para. 20)

Following this, a “Twenty-Point Plan” was published in, “*Teaching Makes a Difference*” (Andrews, 2011). This presented a manifesto for education covering the priorities for the whole education system, directly referencing the importance of the PISA results,

*PISA is a highly respected and robust measure of the relative performance of educational systems and the Welsh school system underperforms for all ability levels. These results cannot be argued away or excused. We need to face up to the harsh truth: the education system in Wales is not delivering the outcomes that our young people need and deserve.*

(Andrews, 2011, Para. 19)

With this, came the drive for large-scale reform and system-wide improvement, “*We must all take a level of responsibility for the problem and for resolving it. We need to refocus on higher standards, set our ambitions and expectations high and look for improvement in every aspect of our system.*” (Andrews, 2011, Para. 21).

Other performance measures were highlighted to demonstrate the need for urgent and whole-scale reform. These included the lack of top grades for Welsh students in public examinations in comparison with the rest of the UK, low numbers of admissions recorded by the Universities and Colleges Admissions Service (UCAS) and reports from the Education and

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Training Inspectorate for Wales (Estyn) specifically referenced in the launch speech, “*Estyn’s most recent report made it clear that standards were not as good as they should be in over 30% of maintained schools, and standards in very few schools and providers are consistently outstanding.*” (Andrews, 2011, Para. 19).

This was the beginning of a significant and comprehensive system-wide drive for reform and improvement in Wales over the next decade, the first of the underpinning principles evident in the policy context during this time.

The drive for reform and improvement shaped the education landscape and directly contributed to the development and emergence of the Welsh SLO model.

The commitment to driving this reform agenda was such that its momentum was sustained despite the disruptions of COVID-19 which began in 2020. In fact, the experiences of learners highlighted because of COVID-19 (Welsh Assembly, 2021; Welsh Government, 2021c), appeared to add weight to the drive and maintained the momentum for reform,

*As we undertake reform, it's clear that we are in a different place to the one that we imagined when the guidance for the Curriculum for Wales was published 18 months ago. On the one hand, I recognise that the preparation time for the curriculum will have been devoted to managing the impact of the pandemic over the past year. On the other hand, with an even stronger focus on well-being and significant investment in teaching and learning, the values underpinning the curriculum have been at the heart of how schools have been working. I'm committed to supporting schools and settings to maintain the momentum.*

(Williams AM, 2021, Para. 3)

The adaptations and adjustments made to the delivery and design of the Leading Collaborative Learning (LCL) Project in response to COVID-19 ensured its continuance and maintained access to the school improvement tools in the programme. This demonstrated

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the commitment to drive reform and improvement in the project, reflecting the commitment of the core delivery team to this principle, aligned to the wider policy context.

This principle was further demonstrated in the deployment of processes to assess system-readiness for the curriculum reform agenda. Gathering relevant and current evidence sustained the drive for system-wide reform (Welsh Government, 2020a, 2021b, 2022). This informed policy makers of the pace of change, the realities of daily operations in schools impacted by COVID-19 and identified the available capacity to continue to implement reform efforts,

*Schools underlined the need for learners to experience consistency in their teaching. This represents a conflict that schools were experiencing – balancing their commitment to the vision of Curriculum for Wales whilst also trying to do the best they can to support current learners who have suffered through severely disrupted learning in recent years.*

(Welsh Government, 2022, p.41, 4.12)

This evidence gathering process and readiness assessments (Welsh Government, 2019a, 2020a, 2021b, 2022) reflected the on-going commitment in the policy landscape to keep learners central to all decision-making. It provided valuable insights to the challenges faced by learners and their schools because of COVID-19.

The assessments recognised that sustaining the pace of reform needed to be realistic and responsive to context. This informed the decision to balance the drive for reform with the impact of COVID-19, whilst adhering to the principle of maintaining momentum for improvement and change,

*It is clear from the survey data that the disruption caused by the COVID-19 pandemic impacted schools’ preparations for curriculum reform severely during the 2020/21 academic year. During the time the survey was open (July 2021), the Welsh Government announced that formal implementation of the new curriculum will not*



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*be mandatory for secondary schools until 2023, with roll-out in that year to years 7 and 8.*

(Welsh Government, 2022, p.98)

This principle of driving system-wide reform is central to the policy context within which the Welsh SLO model is a key part.

*Principle 2 – The system is committed to learning with and from beyond its immediate context*

The second principle underpinning the broad policy context in Wales is a commitment by policy makers to learn with and from individuals and systems beyond the immediate context. This is exemplified in the continuing partnership with the Welsh education system and a range of international settings, academics, and organisations. The partnership with the Organisation for Economic Cooperation and Development (OECD) is of note in the education reform efforts in Wales.

Acting as a critical friend, the OECD offered access to international evidence, case studies, academic and practical insights, balanced with challenge and support over the past decade. In 2013, the OECD were invited to undertake an Education Policy Review in Wales where they identified a key challenge for the Welsh education system, *“An overarching challenge is that Wales lacks a compelling and inclusive long-term education vision to steer the education system and its reform efforts.”* (OECD, 2014, p.11).

The OECD recommendations recognised the importance of aligning policy and systems to ensure a balance between challenge and support,

*Considerable efforts have been made by DfES, local authorities, regional consortia and others to provide support to schools. But there has not yet been a clear direction of support, as parallel programmes appear, and schools are not clear whether support will be provided and who will provide it. At the same time, schools have been*

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*increasingly challenged to implement the various reform initiatives. This imbalance between the challenge and support function brings with it a risk of only partial implementation of the desired improvements, as well as a growing risk of “reform fatigue” that may eventually diminish the support for the reform.*

(OECD, 2014, p.124)

The executive summary of the 2014 OECD report made recommendations for, “A number of concrete policy options would strengthen Wales’ education system over the long term.”

(OECD, 2014, p.7).

The recommendations from the OECD report (2014) continued to inform the policy context for education reform in Wales. This close working relationship with the OECD is exemplified in the co-construction approach undertaken to develop the Welsh SLO model (OECD, 2018c).

In 2017, the OECD were invited to return to Wales to undertake a rapid policy assessment to report on progress made since the 2014 report. The resulting publication, “*The Welsh Education Reform Journey*” (OECD, 2017d), commented favourably on the progress made by the Welsh education system since 2014,

*Since 2014, the OECD has witnessed progress in several policy areas and a shift in the Welsh approach to school improvement away from a piecemeal and short-term policy orientation towards one that is guided by a long-term vision and characterised by a process of co-construction with key stakeholders. The commitment to improving the teaching and learning in Wales’s schools is visible at all levels of the education system.*

(OECD, 2017d, p.18)

In, “Education in Wales: Our National Mission”, (Education Wales, 2017), the Welsh Government details its action plan and education strategy for 2017-2021. Here, explicit

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reference is made by Kirsty Williams AM, Cabinet Minister for Education, of the importance and impact of Wales continuing partnership with the OECD,

*...the Organisation for Economic Co-operation and Development (OECD), has given us some very clear messages. Put simply, they are urging us to hold our nerve and continue to work in partnership with the wider education workforce towards the longer term. I am committed to fulfilling their recommendations and am confident we are heading in the right direction.*

(Education Wales, 2017, p.3)

The continued partnership with the OECD resulted in the publication of another review and publication of a progress report (OECD, 2020d). In response to the findings and recommendations of this report, Kirsty Williams, AM, stated,

*The report recognises that Wales now ‘has a clear vision for its education system and for its learners.’. The report also:*

- *acknowledges the Welsh Government’s role in ‘embedding co-construction across the system as a principle for curriculum development and education policy making more generally’*
- *recognises the Welsh Government has met challenges set in previous reports and that it has established ‘coherence to the different policy components and clarity on the vision, establishing a strong basis for education professionals to make the ‘national mission’ their own’*

(Welsh Government, 2020c, Para. 2)

The centrality of this policy principle to encourage collaborative work with external international partners, and in particular, the OECD, is reaffirmed in the October 2020 National Mission update,

*The OECD has continued to work with us in partnership and has observed for itself the culture of collaboration, co-construction and mutual respect that exists across the*

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*whole Welsh education system. The significant partnership working developed over recent years has been instrumental to our response to their report on our development and implementation of Curriculum for Wales.*

(Welsh Government, 2020b, p.16)

This principle to learn *about, from and with*, individuals and education systems working beyond the immediate context of Wales is forcefully endorsed in the National Mission, “*Quite simply, to be the best we must learn from the best.*” (Education Wales, 2017, p.6).

This principle was further exemplified in the LCL Project (Harris et al., 2022a) detailed earlier in this chapter.

### *Principle 3 - Build capacity through system-wide collaboration to achieve a self-improving system*

In 2012, four Regional School Improvement Consortia were created to add system capacity and work with and across the 22 Local Authorities in Wales.

An updated national vision for these four Regional Consortia was published in 2014 (Welsh Government, 2014). This explains the functions of all three tiers of the national education system. When published, the Welsh Government affirmed a, “*...commitment to regional consortia as the central pillars of the school improvement system within Wales...*” (Welsh Government, 2014, p.4) . This reinforced their importance within the system-wide reform efforts.

The role of the Regional Consortia was to facilitate and deliver school improvement services that would be, “*co-constructed with headteachers and teachers...to build up the capacity of all schools to take responsibility for organising their own improvement.*” (Welsh Government, 2014, p.13). This indicated a firm commitment to building system-wide capacity as a central tenet to the policy context. The goal was to establish the Welsh education system as “*self-improving*”,

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*As schools and teachers develop and gain knowledge and confidence, they will expect more independence, autonomy and space to make their own decisions. As with other improvement mechanisms, regional consortia will themselves develop and in the longer term will change from their present form because schools and school leaders will challenge and support each other in a self-improving system.*

(Welsh Government, 2014, p.9)

The focus on capacity building continued in renewing the roles for previously referred to ‘system leaders’ to become ‘Challenge Advisers’ (Estyn, 2015; Welsh Government, 2014). *“Challenge Advisers within consortia provide challenge and assure the integrity of this process – particularly for those schools that need most support.”* (Welsh Government, 2014, p.7).

These reforms concentrated on building capacity into a self-improving system where school leaders accessed support and challenge. It designed an education system where system leadership and learning through collaboration was facilitated between schools, Regional Consortia, and other commissioned organisations.

The OECD’s visit to assess the progress of the Welsh system towards implementing its reforms affirmed the underlying principle of system-wide capacity building, and placed every practitioner, school, and system leader centrally in the reform process,

*Wales has to strike a balance between showing continuity on this reform journey and acknowledging that the next steps of implementation have to place schools and their communities at the centre. Striking this balance implies continuing to pursue the reform course detailed in, ‘Education in Wales: Our national mission’ – with a new emphasis: adopting a school’s perspective and giving schools capacity and even more room in the next steps.*

(OECD, 2020a, p.10)

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The principle of developing into a ‘self-improving system’, through collaboration and co-construction, remained constant.

*Principle 4 – Embrace holistic, collaborative whole-system ways of working*

Hopkins (2016) describes the system reform efforts in Wales within a framework of four interconnected drivers, “...*personalised learning, professionalised teaching, intelligent accountability and networks and collaboration, all of which are moulded to context by system leadership.*” (Hopkins, 2016, p.87).

Between 2014 and 2017, a number of central education policies and reports were published by the Welsh Government, all of which, combined, reflected these four drivers and presented a system-wide response to the OECD report (2014). This culminated in the central action plan detailed in, “*Education in Wales: Our National Mission*” (Welsh Government, 2017a).

Professor Graham Donaldson’s review of curriculum and assessment, “*Successful Futures*” (Welsh Government, 2015b), provided a central impetus for educational reform and a publication that was viewed as “*one of the paving documents*” (Yr Athrofa, 2018, p.8). This directly informed the national education action plan (Education Wales, 2017b).

According to Hopkins’ (2016) four drivers, curriculum reform represents a whole-scale commitment to personalised learning where students are placed centrally, “...*so as to tailor teaching to individual need, interest and aptitude, in order to fulfil every young person’s potential.*” (Hopkins, 2016, p.101-102).

Hopkins’ second system driver, the professionalism of teaching, was addressed through two reviews in 2015 and 2016.

First, in 2015, Professor John Furlong’s review of teacher education, “*Teaching Tomorrow’s Teachers*”, (2015) was published, and in 2016, a review of teacher standards resulted in the

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publication of, *“The Professional Standards for Teaching and Leadership”* (Welsh Government, 2018a; Welsh Government & Learning Wales, 2017).

Second, also in 2015, Estyn published a progress report on the work of Regional Consortia (Estyn, 2015), reflected in Hopkins’ third drivers, *“intelligent accountability”* and *“networking and collaboration”* (Hopkins, 2016, p.87).

Estyn’s report (2015) identified the progress made by Regional Consortia to establish provision for school improvement services. It confirmed that the Regional Consortia were developing their roles and endorsed the policy context principle of collaborative whole-system ways of working,

*...to establish a more collaborative but robust comprehensive ‘system review’ approach in which all partners in the system share progress, challenges and issues openly...develop improved arrangements for sharing practice and supporting efficiency...information sharing and consultation about developments related to school improvement...developing collaborative relationships of shared accountability.*

(Estyn, 2015, p.33)

Underpinning this collaborative whole-system approach to reform included a commitment to support collaboration between schools and regions. This was reflected in Hopkins’ (2016) fourth driver, *“system leadership”*, and located systematic change efforts away from central government (Tier 1) of the system and towards schools (Tier 3).

For the Welsh policy context, Hopkins (2016) argued that these drivers could be pulled together into a coherent and system wide approach,

*It is clear from the practices of those school systems that are already high performing that their sustained success is a consequence of their enacting a series of integrated and aligned policies and strategies that match their current stage of growth. This also requires a high degree of policy alignment and synergy – the whole is greater*

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*than the sum of its parts. The alignment need[s] to be both horizontal and vertical, and at all levels of the system.*

(Hopkins, 2016, p.102)

The outcome of adhering to this principle of whole system working extended beyond the education system. This was evident in collaborative working and policy developments in several government departments,

*The Well-being of Future Generations (Wales) Act 2015 set out the five principles of working. The implementation of Our National Mission has developed in parallel with the Act and continues to use those principles ... The implementation of Our National Mission is a key contributor to the change envisaged by the Act demonstrating evolution of Wales in a global context.*

(Welsh Government, 2020b, p.29)

The introduction of system-wide readiness assessments in the education system in response to the disruptions of COVID-19 (Welsh Government, 2021b, 2022), identified the prescient challenges faced by system and school leaders. Where they were continuing in their efforts to adhere to the principle of collaboration and system-wide capacity building during this disrupted time, they identified,

*Senior leaders in secondary schools expressed feeling apprehensive about the time involved in co-constructing a new curriculum, particularly where the emphasis is on developing an approach through in-school collaboration and discussion. Issues relating to the impact of COVID-19 that impacted on preparations included staff isolation, social distancing rules preventing effective collaboration within the cluster, adjusting to blended learning, and staff fatigue.*

(Welsh Government, 2022, p.85)

The information gathered by these readiness assessments informed the pace of the on-going system-wide capacity building and the cross-governmental working partnerships. All



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of which embodied the principle of collaborative and whole system working that underpinned the policy landscape for the Welsh SLO model and the location of this research.

### Principle 5 - Place learners at the centre of reform

The OECD stated that the 2009 PISA results were, “*a catalyst for reform*” (OECD, 2014, p.19). This resulted in the extensive whole-system reform effort in Wales that is still underway. The central policy driver, “*Education in Wales: Our National Mission*” (Education Wales, 2017) was informed by a number of preceding policies and education reforms. It detailed a comprehensive action plan for education reform in Wales that placed learners at the centre of reform as it, “*...reaffirms our ambition that learners will enjoy teaching and learning that inspires them to achieve in a collaborative and innovative education community.*” (Education Wales, 2017a, p.3).

The National Mission (2017) was the latest in a long line of strategic policy documents published since the establishment of the Welsh Assembly in 1999. This was built around three core objectives, namely,

- (1) Raising standards
- (2) Reducing the attainment gap between pupils from disadvantaged backgrounds and their peers
- (3) Delivering an education system that is a source of national pride and public confidence

Curriculum reform was central to the National Mission (2017a), building directly on the Donaldson Report (Welsh Government, 2015b).

This commitment to placing the curriculum, and therefore, learners, at the centre of the education reform process was reiterated in subsequent updates to the National Mission (Welsh Government, 2019b, 2019a, 2020b).

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This principle was explicit and integral to the design of the professional learning project in this research and the improvement strategies and practical tools it employed, *“This renewed vision for education in Wales is built around our evolving curriculum, which empowers the education workforce to take a lead in driving us forward.”* (Education Wales, 2017a, p.42).

This learner-centred principle is reiterated in the responses to the disruptions of COVID-19. This was particularly true in how the Welsh Government recognised the disproportionate impact of COVID-19 on the most vulnerable learners, *“The COVID-19 pandemic has had a negative impact on all learners, but we acknowledge that the greatest impact is likely to have been felt by the most vulnerable.”* (Welsh Government, 2020b, p.24).

Learners remaining at the heart of the on-going drive for system-wide improvement is stated as a moral imperative, *“It remains our collective responsibility to engage and inspire the next generation of learners for a more prosperous and equal Wales. Our national mission is to ensure we deliver on this for all learners, in all schools, in all parts of Wales.”* (Welsh Government, 2020b, p.30).

*Principle 6 – Encourage collaboration and establish coherence to build system capacity for pedagogy, curriculum, and assessment*

The National Mission (Welsh Government, 2017a) committed to co-construction processes, and actively encouraged collaboration that would build system capacity,

*...we will continue with a clear commitment to the effective delivery of our new curriculum, underpinned by the four enabling objectives required to ensure its success. This will be reinforced by continued co-construction, open and honest dialogue with educators and evidence-based policy development.*

(Education Wales, 2017a, p.12)

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Four enabling objectives were designed into the National Mission for it to achieve its aims (Figure 2).

Figure 2: Four enabling objectives of The National Mission (Welsh Government, 2017a)

1. Developing a high-quality education profession.
2. Inspirational leaders working collaboratively to raise standards.
3. Strong and inclusive schools committed to excellence, equity, and well-being.
4. Robust assessment, evaluation and accountability arrangements supporting a self-improving system.

Enabling Objective 4 includes, “*Robust assessment, evaluation, and accountability arrangements supporting a self-improving system*”. This emphasises the centrality of co-construction, collaboration, and partnership-working to build capacity,

*Through the use of evidence-based approaches and co-construction, we will create a coherent assessment and evaluation framework that will ensure effective accountabilities across the education system so that all partners play their full part in delivering the best for our learners and their teachers. Working with key partners we will ensure that smaller and rural schools are better supported to play their full part in a collaborative self-improving school system.*

(Education Wales, 2017a, p.35)

When identifying progress already achieved against its own priorities, co-construction and collaboration across the system were highlighted as integral features of what had already been achieved, “...*significantly engaged in policy co-construction across the Welsh education system three-tier model...with a growing, shared understanding between the three tiers – Welsh Government, local authorities/regional services and other partners, and schools.*” (Education Wales, 2017a, p.35).

The development of the Welsh SLO model (Welsh Government, 2017b) similarly employed this co-construction process. This stimulated collaboration between system and school

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leaders across the three tiers of the Welsh Education system (*Figure 3*) through a series of workshops facilitated by Welsh Government representatives and system leaders, with the OECD as partners. These took place between November 2016 and July 2017 (OECD, 2017a).

These collaborative sessions engaged stakeholders from across the three tiers of the Welsh education system to engage with the OECD SLO concept and model (Kools & Stoll, 2016b) to develop the Welsh SLO model (Welsh Government, 2017b).

Stakeholders and OECD partners worked together to co-develop and contextualise the SLO model and use it as the basis for a self-evaluation framework, specifically tailored to the Welsh context,

*I just want to summarise that there are currently several self-evaluation and improvement frameworks so there is an argument for developing a common understanding of what we mean by good self-evaluation and improvement planning. One framework that we can all agree on and all use including the Inspectorate and ... the consortia as a basis for our work and that's the purpose of this project - to develop that common understanding and the agreed framework through a process of co-construction, so co-construction means that we're here to listen to your ideas, so now it's over to you to begin the design stage.*

(Rowlands, 2018, 13:07m)

Updates to the National Mission (Welsh Government, 2020b) reinforced the principle of co-construction and collaboration, where the OECD’s recognition of the success of this approach was directly referenced,

*“The Organisation for Economic Co-operation and Development (OECD) has recognised this progress, saying:*

*‘Wales is on the path to transform the way children learn, with a new curriculum aimed to prepare its children and young people to thrive at school and beyond. The new curriculum for Wales is future oriented and intends to*

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*create a better learning experience for students and to contribute to the overall improvement of Welsh education. The co-construction process succeeded in engaging many and in developing trust, while systemic adjustments in institutions and other policies are helping set in motion a professionally led education.”*

(Welsh Government, 2020b, p.6)

The integral nature of co-construction reflects a key feature of the culture of the system, *“For the reforms to be a success, we must continue this process of co-construction in everything we do, at every level.”* (Welsh Government, 2020b, p.18).

This reflected three elements of the policy-making culture across the system. These were:

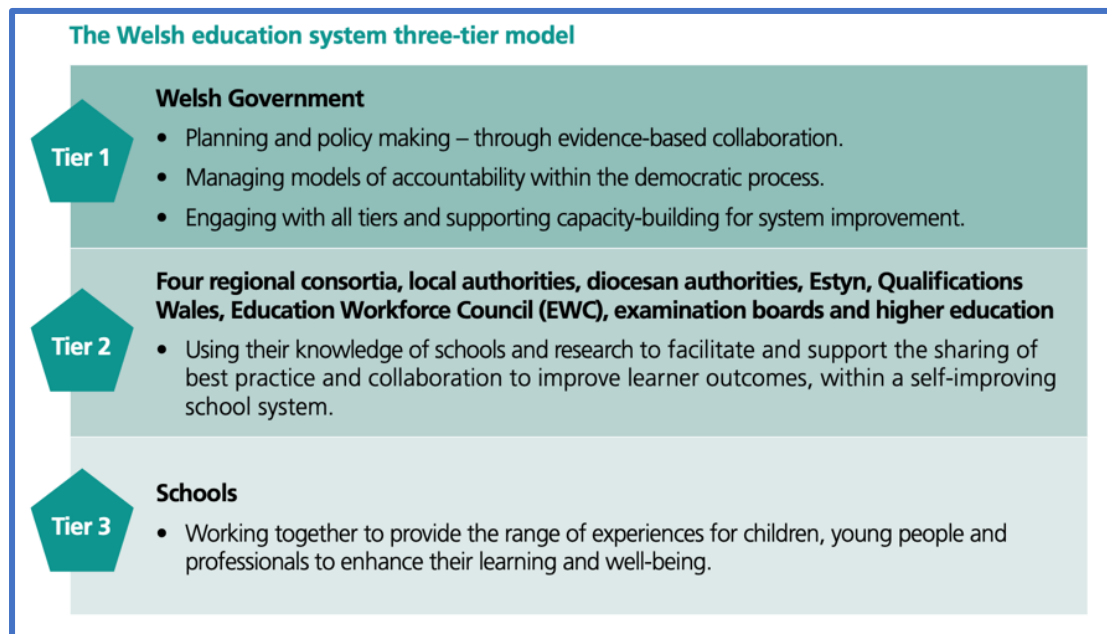
1. The *belief* of policy makers in how to develop a policy.
2. The *norm* of how things need to be done to generate and communicate policy.
3. The need to establish *opportunities* for the whole system to work together, both vertically and horizontally to implement education reforms in Wales.

The principle of co-design, collaboration, and co-construction to build connection, capability and capacity was evident in both the design and delivery approach of the LCL project in this study.

The LCL Project was explicitly designed as a cross-regional collaborative school improvement and professional learning opportunity involving representatives from each of the three tiers of the Welsh Education System (*Figure 3*).

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Figure 3: The Welsh education system three-tier model (Welsh Government, 2017a, p.10)



At all stages, school and system leaders were invited to provide insights and contextual background to inform and shape the content and application of the strategies and tools in the project. This principle is a distinctive and explicit feature of the Welsh education system,

*Co-construction means sharing problems so that solutions are owned by everyone. As schools develop their curricula, partners will develop and deliver support. All involved will be valued and understand why things are done.*

*Co-construction requires people to work across traditional boundaries: between tiers of education as well as between disciplines, schools, phases and with stakeholders beyond the education system. This ensures solutions are tested with different perspectives, using understanding from different experiences and expertise.*

(Welsh Government, 2020b, p.18)

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Summary of the 6 Principles

The six principles explored in this section offer the context for this research. They are distinctive features of the wider policy context from which the Welsh SLO emerged. They reflect the beliefs, norms, and opportunities in the system to such an extent that they can be considered indicative of the culture of the wider system.

The six underpinning policy principles were identified as a result of a detailed policy review of the Welsh educational policy context to understand the context within which the Welsh SLO Model emerged. The importance of these six policy principles as drivers for system reform is reflected in the design of the Welsh SLO Model. Their prevalence as system wide policy drivers is similarly reflected in the design and delivery of the Leading Collaborative Learning Project (LCL Project), central to the research study in this thesis. By identifying the six policy principles in both the design of the Welsh SLO and in the design of the research study in this thesis, contextualises and underlines the relevance of LCL Project to exploring the research problem central to this thesis.

The development of the general SLO policy and specifically the Welsh SLO model is, therefore, examined in the next section of the context of this research. Clear links to the 6 policy principles are highlighted throughout.

Policy development - The OECD Schools as Learning Organisations concept & model

The scope of this next section explores the structure, design, and content of the OECD SLO concept (Kools & Stoll, 2016b).

As previously stated, the relationship between the OECD and the Welsh education system is well established. As part of its programme of Education Policy Implementation Support (OECD, 2017a), the OECD continued to aid the evaluation of the wider Welsh education reform programme.

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Whereas ambiguity and confusion concerning the definition of the generic learning organisation concept, explored in Chapter 2, the OECD SLO model (Kools & Stoll, 2016b) provides a clear definition of the concept of ‘Schools as Learning Organisations’, “...*a school as learning organisation has the capacity to change and adapt routinely to new environments and circumstances as its members, individually and together, learn their way to realising their vision.*” (Kools & Stoll, 2016b, p.63).

The rationale for the OECD SLO concept (Kools & Stoll, 2016b) is that the SLO is ideally suited to support schools to build the capacity for organisational readiness for change in a complex, rapidly changing world.

This aligns it, first, to the common features of the SLO literature pre-2016 (Benjamin, 2009; Keefe & Howard, 1997; Moloi et al., 2002; Retna & Tee, 2006) and, second, this resonates with the post-2016 SLO evidence base that incorporates SLO literature from a constantly expanding, extensive and diverse international knowledge base (Dahl, 2019; Fedai et al., 2017; Geda et al., 2017; Gil et al., 2019; Gouédard et al., 2019; Harris & Jones, 2018b; King Smith et al., 2020; Papazoglou & Koutouzis, 2020; Tan, 2019).

The OECD SLO (Kools & Stoll, 2016b) model draws directly on the general learning organisation (LO) literature from the business and management knowledge base and adapts it to educational contexts to generate the SLO concept. Kools and Stoll (2016b) acknowledge the development process of the SLO literature to this point,

*...some scholars have set out to clarify the concept by synthesising the literature and working towards an integrated model of the SLO. Some have also developed diagnostic instruments for assessing and improving a school’s learning capabilities and, ultimately, its performance.*

*This paper therefore pursues a similar path, using Watkin’s and Marsick’s SLO model as a starting point for developing our own integrated model and assessment instrument of the SLO.*



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(Kools & Stoll, 2016b, p.30)

The integrated OECD SLO model has seven “*action orientated*” elements, which are “*activities people need to be involved in – that characterize companies becoming learning organizations*” (Kools & Stoll, 2016b, p.31). Adopting the term ‘action’ reflects the dynamic nature of the OECD SLO model, “*...to convey that the learning organisation is not static; it is sensitive to shifts in the local and wider environment and adapts accordingly.*” (Kools & Stoll, 2016b, p.31).

The OECD SLO concept includes a clear definition of the SLO accompanied by 7 Dimensions. These include detailed descriptions of what the 7 dimensions entail and, provide, “*...practical guidance to policy makers, school staff and other stakeholders that wish to develop their schools into learning organisations.*” (Kools & Stoll, 2016b, p.11).

The OECD SLO concept presents the 7 dimensions as, “*...a theoretical foundation for the development of the integrated SLO model.*” (Kools & Stoll, 2016b, p.10).

As part of the co-construction process of the Welsh SLO model (Welsh Government, 2017b), these 7 dimensions and descriptors were adapted into a self-evaluation tool as part of the Welsh SLO model and made accessible to all schools in Wales on the national learning platform, ‘HwB’ (Welsh Government, 2017d, 2021a). This self-evaluation tool is used by Welsh schools annually to support the implementation of the Welsh SLO model.

Policy development - The Schools as Learning Organisations in Wales (Welsh SLO)

The development of Welsh SLO model emerged directly from the OECD SLO concept and model (Kools & Stoll, 2016b).

Both authors of the OECD working paper worked with Welsh policy makers, system and school leaders and teachers, to develop the Welsh SLO model. This exemplified the policy principles of collaboration, co-construction, and whole-system reform of the policy context,

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*Wales’ SLO model was designed through a process of co-construction. It was developed by representatives of 24 Pioneer Schools, the regional consortia (i.e. regional school improvement services), Estyn (i.e. the Inspectorate of Education and Training in Wales), the National Academy for Educational Leadership, the Education Directorate of the Welsh Government and the OECD. The developmental work was shaped through a series of workshops and meetings that were facilitated by the OECD between November 2016 and July 2017. The result of this collective effort is Wales’ SLO model that was released in November 2017.*

(OECD, 2017c, p.3)

The direct relationship between the wider policy context and the emergence of the Welsh SLO model is discussed in this final section.

There are some minor instances of different terminology between the 7 overarching dimensions of the two SLO models. For example, where “students” is used in the OECD SLO model (Kools & Stoll, 2016b), “learners” is used in the Welsh SLO model.

There are also some additions and re-phrasing in the underlying elements of the Welsh SLO model. Aside from these differences, however, the themes and, significantly, the literature base is consistent for the elements and overarching dimensions of both models. This literature base is examined in detail in the next chapter.

## Chapter Summary

This chapter examined the Welsh SLO model (Welsh Government, 2017b) within its wider policy context. This identified six principles that underpin the policy landscape within which the Welsh SLO model is situated.

The chapter examined where these six principles are evident in the Welsh SLO model and demonstrated how the Welsh SLO model has been tailored to its specific context.

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It is important at this point to note that there is no ‘Welsh SLO policy’. The Welsh SLO model is not a policy in its own right. This chapter has, therefore, located the Welsh SLO model in its wider policy context and explored how it emerged and the extent to which it was aligned to its policy context in its development.

The result of this exploration, therefore, has revealed, to varying degrees, three significant factors,

(1) The Welsh SLO model is an integral element of the education policy reform landscape. It is firmly located in the ambition, intentions and strategic thinking that underpins the National Mission and specifically, the Curriculum for Wales. It is, therefore, explicitly aligned to its wider policy context at policy level.

(2) The emergence of the Welsh SLO model reflects the universal commitment to co-construction approaches in the Welsh education policy and reform landscape. Policy makers, system leaders and school leaders are familiar with this co-construction approach to policy development. The active engagement of all three Tiers of the Welsh Education system to co-create the Welsh SLO model reflects system coherence in terms of both its evolution (processes), content (product) and roles (people).

(3) The Welsh SLO model is aligned to all six policy principles identified in the wider policy landscape. It locates the four core purposes of curriculum reform, and therefore, learner needs, at the centre of its rationale, its focus and intended outcomes.

The features of policy alignment, coherence, co-construction approaches and learner-centredness of reform and improvement efforts were explored in this research. They were also examined in the analysis of the experiences of participants and were represented in the summative findings of the thesis.

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The next chapter reviews the extensive and interrelated evidence base that underpins the Welsh SLO model. The review examines the origins of the general Learning Organisation (LO) concept, the development of the specific, ‘Schools as Learning Organisations’ (SLO) concept and the wider evidence base evident in the specific evolution of the Welsh SLO model.

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## Chapter 2 - A review of the Schools as Learning Organisations literature

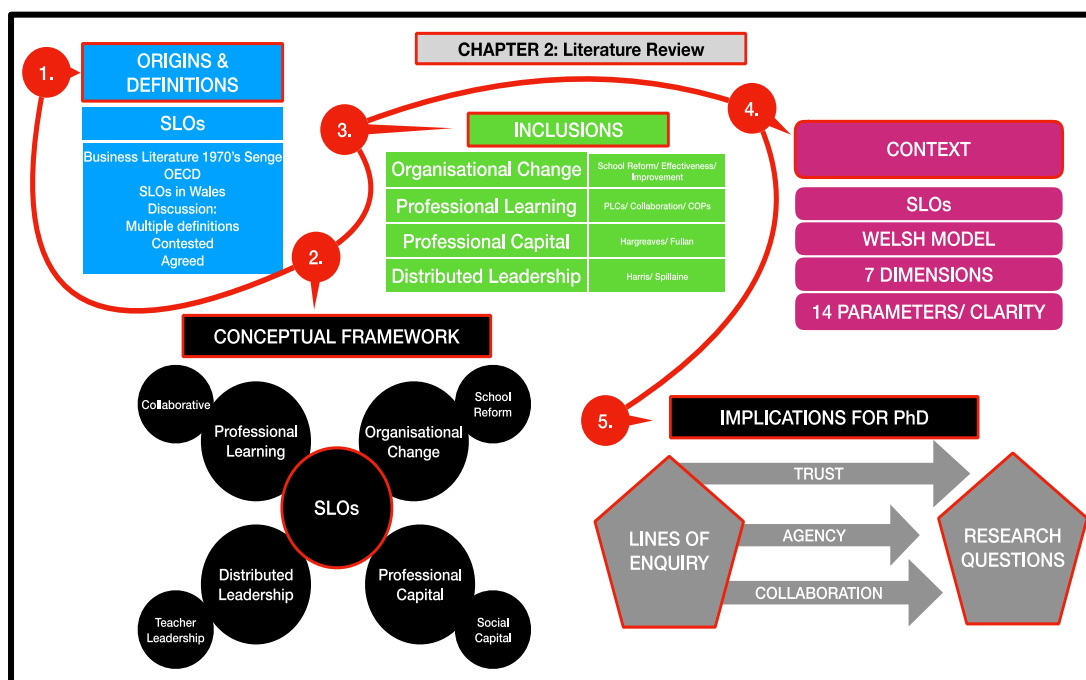
### Introduction

This literature review begins with an examination of the origins and debates surrounding the Learning Organisation (LO) concept in the general business and management literature. Following this, specific ‘Schools as Learning Organisations’ (SLO) literature is examined to trace the adoption and adaptations of the LO concept into the field of education as the SLO concept.

The review then examines four interrelated knowledge domains that underpin the SLO concept from the wider school improvement and professional learning literature (*Figure 4*).

These domains include literature from the school reform and improvement, professional learning, professional capital, and school leadership evidence bases.

*Figure 4: Design and mapping of the literature review*



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This review organises the relevant and related literature into three sections:

**Section 1:** This first section examines the general learning organisation (LO) concept in the business and management literature. This traces the development of the LO concept and examines the different attempts at clarifying it over a specific timeframe.

This section of the review explores the criticism that the inability to agree a shared definition of the LO concept detracts from its meaning and that such ambiguity prevents its realisation in practice. This exploration identifies a generative and coherent line of development of the LO concept that synthesises the multiple interpretations into one clear definition.

Furthermore, this illustrates how this generative conceptual process prepared the LO concept for its adoption into educational contexts as the ‘Schools as Learning Organisations’ (SLO) concept.

**Section 2:** The second section applies a common features framework (Kools & Stoll, 2016b) to the literature. This is used to organise and explore the specific but less extensive knowledge base that underpins the SLO concept.

**Section 3:** The final section examines the literature that specifically underpins the Welsh SLO model. This recognises the extensive nature of the literature and responds to this by, first, accepting that a complete examination of this knowledge base was beyond the scope of this review. Second, a two-stage selection process was adopted that refined this section of the review to the literature that was specifically related to the SLO concept.

This two-stage process identified (1) the *related* and (2) the *relevant* literature base pertinent to the specific Welsh SLO model.

The selection process for the final section of the review is summarised below:

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1. Related literature - The literature selected encompassed the literature *related* to the SLO concept. This literature was primarily evident in the OECD SLO concept working paper (Kools & Stoll, 2016b). This was organised into four broad knowledge domains:

- (1) Organisational change in schools
- (2) Professional learning
- (3) Professional capital
- (4) School and system leadership

2. Relevant literature - within each of the four knowledge domains, a specific focus area was identified for detailed examination. This selection was informed by the literature in the four *related* knowledge domains that was most *relevant* to the 7 Dimensions of the Welsh SLO model. These four domains and focus areas were:

- (1) *school reform and improvement* within the wider domain of organisational change in schools
- (2) *collaborative professional learning* within the wider domain of professional learning
- (3) *social capital and trust* within the wider domain of professional capital
- (4) *distributed leadership* within the wider domain of school and system leadership

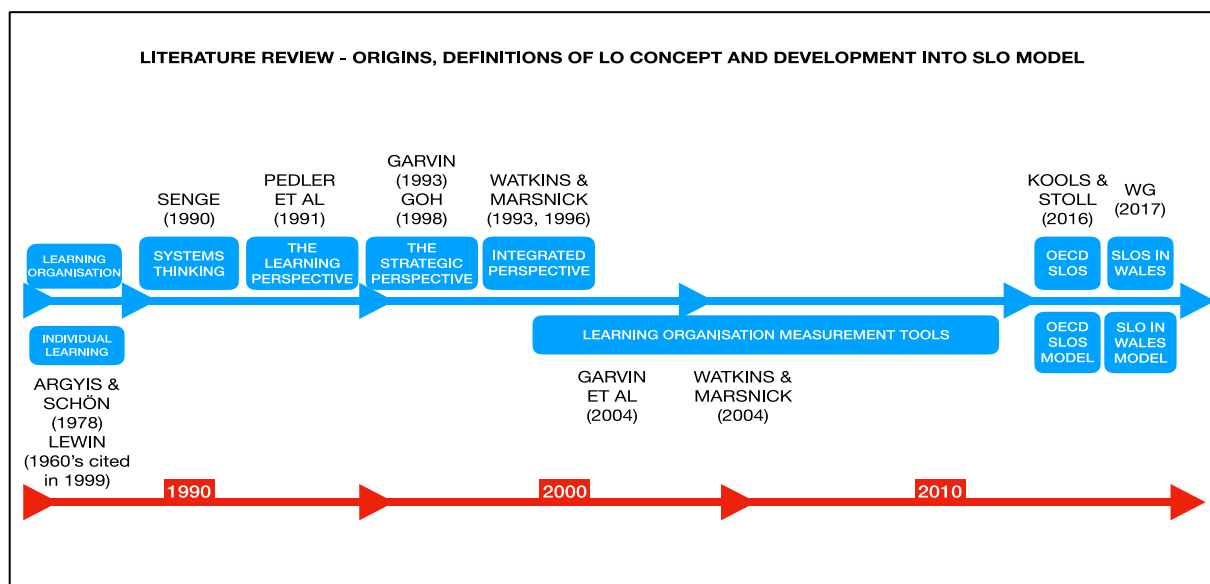
The review closes by identifying five themes that emerge from the literature. These themes, combined with the policy context examined in Chapter 1, were critical to this research and generated the conceptual framework that informed all elements of this thesis (*Figure 8*).

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## Section 1 - Origins and definitions of the learning organisation (LO) concept

This section traces the development of the LO concept up until the 2016 publication of the OECD working paper, “*What makes a school a learning organisation?*” (Kools & Stoll, 2016b) (Figure 5).

Figure 5: The development of the LO Concept following Senge’s “Fifth Discipline” (1990)



### Definitions of learning organisations

The concept of the ‘learning organisation’ (LO) developed from the literature of ‘organisational learning’ which moved away from focusing on how *individuals* learn *within* organisations into theories about how organisations learn *collectively*.

The specific term ‘learning organisation’ (LO) was popularised with the publication of Senge’s, “*The Fifth Discipline – The Art and Practice of The Learning Organisation*” (1990) and this remains the dominant reference point for LO and SLO scholars alike.

Two significant organisational learning theories prior to Senge’s (1990) publication were proposed by Lewin (1999) and Argyris & Schön (1978).



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Whereas Lewin (1999) highlights the role of group dynamics and action learning approaches for individuals learning in organisations, the ‘double-loop’ learning theories of Argyris & Schön (1978) highlight the individual learning processes experienced in organisations over time.

Crucially, in these dominant organisational learning theories, individuals reflect on their own actions, values, and perspectives *in conjunction with* the actions, values, and perspectives of others in the organisation.

The opportunities for reflective practices examined by Argyris & Schön (1978) identify a dual process for individuals *and* organisations to reflect *together*. This was fundamental to organisational learning.

Senge (1990) built on this, recognising a similar need for dual learning processes between individuals and organisations in the LO concept, “...*continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together.*” (Senge, 1990, p.3).

Senge (1990) focused on the interrelationship between the *collective* and *individual* learning processes of an organisation in the seminal definition of the LO concept, “*This, then, is the basic meaning of a “learning organization” - an organization that is continually expanding its capacity to create its future...learning that enhances our capacity to create.*” (Senge, 1990, p.3).

Senge’s (1990) definition of the LO concept identified five characteristics, the ‘Five Disciplines’ of personal mastery, team learning, building a shared vision, mental models and systems thinking. According to Senge (1990), when these five disciplines are developed as integrated parts of the whole organisation, the LO can be realised. This notion of integration in the LO concept is a constant theme in the literature that followed Senge’s (1990) LO

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definition and can be traced through to the development and formulation of the Welsh SLO model.

As such, Senge’s (1990) LO concept significantly influenced and dominated the evidence base (Fielding, 2001; Hsu & Lamb, 2020; Moilanen, 2001; Pedler & Hsu, 2013). Much of the literature that followed focused on interpreting, extending, and elaborating on this specific LO work (Örtenblad, 2007).

The influence of Senge’s (1990) LO definition was significant in galvanising the LO concept in theoretical terms and lead to some clarity and emergence of similarities and differences across the literature. This acknowledged that confusion and lack of precision persisted in attempts to define what constituted individual and collective learning in the LO, *“Learning organization theorists argue that there has been considerable conceptual confusion about the nature of learning at the organizational level.”* (Yang et al., 2004, p.31).

Therefore, ambiguity and confusion about how to realise the LO in practice remained, *“...many of the early discussions about learning organizations were paeans to a better world rather than concrete prescriptions. They overemphasized the forest and paid little attention to the trees.”* (Garvin et al., 2008, p.2). Furthermore, *“Although many theorists have explored the concept of a learning organization, there is not yet a consensus on the definition of a learning organization.”* (Ahonen & Kaseorg, 2017, p.2).

The next section of this literature review demonstrates how this iterative process moved the LO concept closer to consensus. This in turn, illustrates how the Welsh SLO model embodies a coherent synthesis of both the LO and SLO literature and built on these interrelated and robust empirical foundations.

In striving for clarity and a shared understanding of the LO concept, Garvin (1993) proposed three criteria that when applied, make the LO concept meaningful:

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1. The meaning of the LO concept itself should be achieved by shared agreement to ensure it is universally understood.
2. The LO concept must be practical. It should include explicit guidance for organisations to know what they need to do to realise themselves as LOs.
3. The LO concept should be accompanied by evaluation tools to analyse the extent to which the aspiring LO has developed its capacity to learn and improve and become a LO.

(Adapted from Garvin, 1993)

These three criteria identified the need for accessibility, practicality, and measurability for the LO concept. They made a vital contribution to informing the future developments of the LO and SLO concepts and ultimately, the Welsh SLO model (Welsh Government, 2017b).

#### Typologies of learning organisations

Clarifying the LO concept was aided by the development of typological approaches which were used to organise and curate the various LO concepts over time. Two typologies, by Örtenblad (2002) and Yang et al. (2004), were significant for the evidence base upon which the Welsh SLO was founded.

There were previous attempts to create typologies for the LO concept but, as Örtenblad (2002) states, the focus for these was to, “...have created typologies of how the learning organization is developed” Örtenblad (2002) , and not what it is.

Although the two typologies are distinct from each other in fundamental ways, the next section of this review proposes that when combined, their contribution to the conceptual knowledge and understanding of the LO concept was significant in two ways.

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First, they clarified and created order in the conceptual ambiguity of the LO concept and second, in doing so, they prepared the LO concept for its adoption as the SLO concept and its adaptation as the Welsh SLO model.

The first of these typologies, by Örténblad (2002) presents, “...*different perspectives of the ontology of the ‘learning organization’, i.e. what ‘learning organization is.’*” (Örténblad, 2002, p.216-217).

By interpreting the LO as an *entity*, or object, the typological categories focus on the structures and systems that need to be established for individual and collective learning to occur. This is reflected throughout the Welsh SLO model, where organisational elements are established, such as, “*systems*”, “*structures*”, “*partnerships*”, use of “*ICT*” to facilitate “*knowledge exchange*” to establish the learning culture for the Welsh SLO model (Welsh Government, 2017b).

Örténblad’s (2002) typology is generated inductively from an analysis of the different uses of the LO concept in both the general LO literature and in practice, “*Four distinct types of understanding were found: ‘organizational learning’, ‘learning at work’, ‘learning climate’ and ‘learning structure’.*” (Örténblad, 2002, p.213).

These four interpretations are categorised according to which organisational element is located centrally for individual and collective learning in the LO.

Örténblad (2002) noted that LO definitions often relied on ‘best-fit’ selections, where “*most syntheses and definitions have more differences than similarities.*” (Örténblad, 2002, p.213). These ‘best-fit’ definitions are generally based on Senge’s (1990) definition. Here, they combine either selected quotations from the book, or, part or whole descriptions of the Five Disciplines and/or, assume that Senge’s (1990) LO concept as a single, accepted and universal definition.

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Örtenblad (2002) argues that the result of this was to generate an amalgamation of interpretations that attempted to establish homogeneity, whereas, “*clarity*” was required, “*not consensus.*” (Örtenblad, 2002, p.214).

In common with the LO literature, Örtenblad’s (2002) typology built on earlier work (Örtenblad, 2001), where strong connections were forged between theories of *individual* learning and of *organisational* learning. This generated a dual definition for the LO concept, where the LO encompassed both a *facilitating* environment for individuals and an *enabling* environment for the wider organisation.

This conceptual development was important for the foundations for the Welsh SLO model (Welsh Government, 2017b).

The Welsh SLO model focused on establishing the ideal conditions in an (internal) *organisational learning culture* to enable (external) learning *from and with wider contextual* factors (Dimension 3 - Welsh SLO model).

These dual features of the LO concept and Welsh SLO model are important in that they allowed for the concurrent building of individual *and* organisational learning capacity and capability. With this, such capacity and capability building took place concurrently *within* the organisation and/or *across* the wider system.

Örtenblad’s (2002) understanding of the LO concept as an entity (object/ organisation) conceptualises the LO in relation the design of its systems and internal culture. The *activity* of organisational learning is, therefore, understood as learning *within* the organisation. Such learning requires active efforts to build relational trust, employ a range of leadership practices and leadership of change processes, all of which were ultimately embedded in the design of the structures and systems of the LO.

Örtenblad (2002) establishes a 4-part typology to capture different definitional approaches where the LO concept is defined through this focus on organisational learning as,

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**(1) the *activity of organisational learning*** – when the information learnt by individuals is held in the *institutional* memory of the organisation

Or,

**(2) the *activity of learning at work*** – when the learning is intrinsic, that is, it takes place in the workplace, evident in the *daily activities* of the roles of members in the organisation. This does not include any extended learning activities such as discreet courses or training activities

Or,

**(3) an *organisation with a learning culture*** – when the culture of the organisation enables all its members to learn through the *conditions* and the subsequent climate for learning it establishes

Or,

**(4) an *organisation with a learning structure*** – when the organisation has a flexible, adaptable *structure* that responds to the needs of the customer/ those for whom the organisation serves

(Adapted from Örtenblad, 2002, p.226)

Örtenblad’s typology (2002) therefore organises the definitions of the LO concept into how organisational learning processes *result from* these structures and systems. The object, therefore, is the LO itself.

In this way, Örtenblad (2002) presents an ontological conceptualisation of the LO. This is the significant distinction between the typology of Örtenblad (2002) and the second typological approach and conceptualisation of the LO concept, presented by Yang et al. (2004). Like Örtenblad (2002), Yang et al.’s (2004) typology includes four definitional categories of the LO concept.

In contrast to Örtenblad (2002), however, Yang et al.’s (2004) typology relates specifically to the *aims* of the LO concept in the LO and the *learning processes* that reflect these. So,

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whereas Örtenblad’s (2002) typology is *ontological*, and focused on the concept of the LO as an object and an entity in its own right, Yang et al.’s (2004) is *teleological*.

Yang et al.’s (2004) LO concept is conceptualised teleologically in terms of its *learning aims and intentions*. It is, therefore, the *processes* of learning that are critical for Yang et al. (2004) to define and understand the LO concept,

*A teleological process may express a move in an unknown environment. After the agent has decided a general route for her move, she will take the opportunity to revise her path during her progress, taking into account the information and knowledge she has gathered from her real environment.*

(Cayla, 2008, p.5)

Furthermore, Yang et al.’s (2004) typology included assessment instruments that articulate methods for the evaluation of the realisation of the learning aims and processes of the LO (Marsick & Watkins, 1999).

The four categories of Yang et al.’s (2004) typology are organised chronologically. They thereby capture the process of iterative refinements that scholars made over time to clarify the LO concept. This typology therefore maps the evidential pathway from Senge’s (1990) definition through the multiple interpretations of the LO concept. The four typological categories are,

- (1) Systems Thinking
- (2) Learning Perspective
- (3) Strategic Approach
- (4) Integrated Perspective

By focusing on the learning *processes* to understand the LO concept, and including LO assessment tools, Yang et al.’s (2004) typology went some way to indicating some practical

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steps to realise the SLO model (Harris et al., 2022b; Kools & Stoll, 2016b; Stoll & Kools, 2017).

Furthermore, the contribution of Yang et al.’s (2004) typology to the development of the SLO concept is acknowledged by SLO scholars as offering, “...a clear and useful typology that is strongly rooted in the learning organisation literature.” (Kools & Stoll, 2016b, p.16).

The first of Yang et al.’s (2004) categories, ‘Systems Thinking’ traced back to Senge’s (1990) popularised definition of the LO concept.

Where the LO concept was understood in terms of ‘Systems Thinking’, it should include systems and processes that integrate all parts of the organisation. In doing so, the ideal conditions can be established for the LO concept to be realised.

The second category of Yang et al.’s (2004) typology included definitions of the LO concept where the *activity* of learning is central, this was referred to as the ‘Learning Perspective’. This asserts that the LO concept prioritises the transformative processes of learning for every individual. This ‘Learning Perspective’ category includes Pedler et al.’s (1997) earlier definition of the LO as, “...an organisation which facilitates the learning of all of its members and continuously transforms itself.” (Pedler et al., 1989, p.92)

This goes on to identify four organisational conditions pertinent to establishing the right environment for the activity of learning to be central to all that the LO does,

1. The organisational climate, or culture, encourages learning opportunities for all employees.
2. Learning opportunities are extended to all stakeholders in the organisation.
3. The Human Resource strategy is located centrally within the overall business strategy
4. A continuous process of transformation flows from these first three conditions

(Pedler et al., 1997)



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In each of these four categories, it the processes of learning and the specific learning activities of the LO that are *central* to the LO concept.

In Örtenblad’s (2002) typology, these learning processes and activities are prioritised in categories of “*Learning at work*” and “*Learning Culture*” (Örtenblad, 2002, p.224), and learning is enabled by the organisational *structures* of the LO concept.

In contrast to this, the “*Learning Perspective*” category in Yang et al.’s (2004) typology locates learning activities at the centre of the organisation where there is evidence of, “...*comprehensive aspects of learning at all organizational levels. The traditional elements of management are incorporated to support learning.*” (Yang et al., 2004, p.32).

The third category in Yang et al.’s (2004) typology is the ‘Strategic Approach’. This includes definitions of the LO concept that relate to the strategic planning and organisational structures that facilitate knowledge exchange. This category draws together Garvin (1993) and Goh’s (1998) work (*Table 1*).

*Table 1: Comparison of the five foundational elements of the LO concept using the 'Strategic Approach'*

<b>Strategic Approach 1</b> <i>(adapted from (Garvin, 1993))</i>	<b>Strategic Approach 2</b> <i>(Goh, 1998)</i>
(1) systematic problem solving	(1) Mission and Vision
(2) experimentation with new approaches	(2) Leadership
(3) learning from their own experience and history	(3) Experimentation
(4) learning from the experiences and best practices of others	(4) Transfer of Knowledge
(5) transferring knowledge quickly and efficiently throughout the organization	(5) Teamwork and Cooperation
	<b>PLUS: ‘Foundational supports’</b>
	(1) Organisational design that supports the 5 building blocks

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	(2) Employee’s skills and competencies
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Garvin’s (1993) ‘Strategic Approach’ describes the LO concept in relation to five strategic building blocks. This asserts that the strategic plan of the LO reflects, first, a particular attitude, second, includes practical tools, and third, endorses deliberate behaviours that facilitate knowledge transfer to promote change,

*...all forms of experimentation seek the same end: moving from superficial knowledge to deep understanding. At its simplest, the distinction is between knowing how things are done and knowing why they occur. Knowing how is partial knowledge; it is rooted in norms of behavior, standards of practice, and settings of equipment. Knowing why is more fundamental: it captures underlying cause-and-effect relationships and accommodates exceptions, adaptations, and unforeseen events.*

(Garvin, 1993, p.38)

The structural mechanisms in Goh’s (1998) later work includes five managerial practices underpinned by two ‘Foundational Supports’. By integrating how people are organised (structures and systems) with organisational processes (routines and roles), and directing these two towards the central activity of learning, Goh (1998) overcomes the conceptual disparity between the ontological conceptualisation of the LO of Örténblad (2002) and the teleological conceptualisation of Yang et al.(2004). This integrated approach stimulates and sustains the dual process of individual *and* organisational learning, for people, *through* structures, *“The learning organization is viewed as one that has the capacity to integrate people and structures in order to move toward continuous learning and change.”* (Yang et al., 2004, p.34)

Yang et al.’s (2004) final typological category is the ‘Integrative Perspective’. More than any other, this category demonstrates how the multiple definitions of the LO concept since Senge (1990) were part of a generative conceptualisation process and synthesised the three preceding categories. This is important in two ways.

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First, the ‘Integrative Perspective’ extended the LO definitional process from its conceptual roots into a practical intellectual space. This was achieved through the inclusion of specific characteristics (*Figure 6*) and assessment tools that were designed to implement and evaluate the LO *in practice* (Marsick & Watkins, 2009; Watkins et al., 2018).

This development, with the inclusion of self-assessment approaches is important for the development of the Welsh SLO model. Particularly in how it was framed when the initial co-construction work commenced,

*... we're serious about wanting to offer the opportunity to really shift what we're looking at, what we monitor, what we evaluate, what we assess and how we use that eventually in terms of accountability. So, over the years it's been suggested that we should build the self-evaluation around aspects of effective learning organisations...*

(Davies, 2018, 2.38m)

Furthermore, reports published since the launch of the Welsh SLO model documenting the realisation efforts (OECD, 2017b, 2018b, 2018a, 2018c) illustrate its initial application as a self-evaluation tool (HwB, 2020).

Second, the inclusion of an assessment tool in the conceptualisation of the LO marks a significant moment of clarity in its developmental progress.

It is at this point that this ‘Integrative Perspective’ meets Garvin et al.’s (2008) three criteria for meaningfulness for the LO concept with the inclusion of (1) a shared definition, (2) explicit guidance for realisation and (3) assessment and evaluation tools.

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Figure 6: Characteristics of the LO concept (Adapted from Yang et al., 2004)

DIMENSION	A LEARNING ORGANISATION WHERE...
1. Continuous learning	Continuous learning opportunities for all its members is created
2. Inquiry and dialogue	There is a culture of questioning, feedback, and experimentation
3. Team learning	There is a culture of collaboration and encourages team-working skills
4. Empowerment	A collective vision is created and shared. It seeks feedback from its members about the gap between status and the collective vision
5. Embedded system	Systems are established to capture and share learning
6. System connection	It is connected to its internal and external environment
7. Strategic leadership	Leaders think strategically. They use learning to create change. They can move the organization in new directions or new markets

These features of the LO literature base and the conceptualisation of the general LO are reflected to various degrees in the Welsh SLO model. Notably, the Welsh SLO combines the organisational *systems* and *structures* of the general LO (Örtenblad, 2002) with the organisational *culture* and *processes* that encompass the daily routines and activities of people (Yang et al., 2004). The common ambition of both these typological approaches is to define the LO concept ontologically and teleologically with the goal of facilitating continuous individual and systematic, organisational learning.

The Welsh SLO model seeks to realise these systematic, dual foci on learning. As an evolution of the general LO concept, the Welsh SLO model therefore meets Garvin’s (1993) three criteria for meaningfulness.

It can be defined both ontologically, by its structures and systems, and teleologically, by the prioritisation and purpose of its activities and processes. With this, it can be applied to organisations as a systematic self-assessment tool of both these combined elements.

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## Section summary

This section of the literature review began with an exploration of the LO concept since the publication of Senge’s (1990) work. This demonstrated how the iterative development of the LO concept prepared it for its adoption and adaptation into educational contexts as the SLO concept, and ultimately, as the Welsh SLO model.

## Section 2: Definitions and common features of the ‘Schools as Learning Organisations’ (SLO)

This section of the literature review examines the theoretical, conceptual, and empirical work that underpins the design and content of the Welsh SLO model (Welsh Government, 2017b).

Whilst the Welsh SLO model is foregrounded in this review, the OECD working paper and SLO concept in, *“What makes a school a learning organisation?”* (Kools & Stoll, 2016b), plus its accompanying report (Kools & Stoll, 2016a) are central to this exploration of the SLO evidence base. All publications are referenced in this review, with an emphasis on the OECD working paper (Kools & Stoll, 2016b).

There are two reasons for centralising these elements of the evidence base in this review.

First, the OECD paper (Kools & Stoll, 2016b) provides a valuable and thorough exploration and synthesis of the evidence base for the SLO concept. This marks a significant moment in the development of the SLO concept and its adoption into educational contexts.

Second, the relationship between the Welsh Government with the OECD (Chapter 1) within the context of the empirical and policy roots of the Welsh SLO model are integral to the knowledge base from which the Welsh SLO model emerged. Frequent comparisons are made in this review between the Welsh SLO model (Welsh Government, 2017b) and the integrated OECD SLO concept (2016b). This reflects the interrelated and complex evidence base shared by both.

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The OECD SLO paper (2016b), in common with the contribution of Yang et al. (2004) to the LO evidence base, marks a significant moment in the evolution of the SLO literature in two ways.

First, the OECD SLO concept (Kools & Stoll, 2016b) synthesised much of the SLO knowledge base spanning an almost 30-year timeline since Senge’s (1990) widely adopted definition of the LO concept.

Second, the OECD SLO concept (Kools & Stoll, 2016b) directly built on the LO knowledge base and prepared the ground for the adoption and adaptation of the general LO concept into educational settings, as the SLO. The OECD SLO concept (Kools & Stoll, 2016b) therefore marks a critical and coherent convergence of the two related bodies of knowledge. The OECD paper states its intentions to provide a theoretical foundation for the SLO model,

*This paper should be seen as an attempt to work towards a common understanding of the school as a learning organisation concept that is both solidly founded in the literature and is recognisable to all parties involved, i.e. educators, policy makers, parents and others alike.*

(Kools & Stoll, 2016b, p.10)

Following from this, the significance of the OECD paper (Kools & Stoll, 2016b) is also acknowledged as having a central role in the co-development of the Welsh SLO model (Welsh Government, 2017b).

The LO and the SLO literature, combined with the wider school improvement and professional learning literature, form a substantial empirical evidence base underpinning the SLO concept.

The shared features of the SLO concept identified and developed by Kools and Stoll (2016b; Stoll & Kools, 2017b) identified four common features of the SLO concept from the literature, ahead of defining the OECD SLO model (*Table 2*).

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Table 2: SLO Concept - summary of common features

Four shared features of the SLO concept in the SLO literature (up until 2020) (Kools & Stoll, 2016b; Stoll & Kools, 2017a)	
The SLO concept...	
1	Common Feature 1: The SLO is necessary for any school, regardless of <b>context</b> , for it to be able to adapt and respond to a rapidly <b>changing</b> external environment.
2	Common Feature 2: The SLO adapts and grows in response to <b>change</b> , it is ‘organic’ and closely connected to the external environment.
3	Common Feature 3: The SLO emphasises continuous learning to stimulate a culture of change <b>and</b> innovation.
4	Common Feature 4: Creates the <b>cultural</b> conditions for learning by establishing the beliefs, values, and norms of the organisation

The next section uses these four common features to explore the generative development of the SLO concept in the literature over time.

For each of the common features, examples are selected based on how they best illustrate the knowledge base of empirical studies and reviews reflected in the SLO concept.

### Common Feature 1: The SLO is necessary for any school, regardless of **context**, for it to be able to adapt and respond to a rapidly **changing** external environment

Schools exist in constantly changing **contexts**. The SLO concept emerged in response to this reality to ‘re-conceptualise’ schools as SLOs to, “...react more quickly to changing external environments, embrace innovations in internal organizations, and ultimately improve student outcomes” (Kools & Stoll, 2016b, p.1).

The constantly changing educational environment is characterised by frequent *school improvement reform efforts* (Fullan, 2000, 2015; Ganon-Shilon et al., 2020; Hopkins, 2016, 2017; Munby & Fullan, 2016; Pont, 2020), increasing *complexity* (Bicchieri & Mercier, 2014; Biesta, 2015; Braathen, 2016; Coppieters, 2005; M. Heffernan, 2021; Snowden, 2021; Snyder, 2013), the demands of *a fast-moving knowledge society* (Bowen et al., 2007; Giles & Hargreaves, 2006; Karnopp et al., 2021; Kvam, 2021; Moloji et al., 2002; Nehez et al., 2021; Papazoglou & Koutouzis, 2020; Retna & Tee, 2006), and *significant national policy changes*

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(de Amorim & de Andrade Guerra, 2020; Harris et al., 2022b; Holland, 2015; Kools, George, et al., 2020; Uhl-Bien & Arena, 2018).

SLOs are ideally suited to these often-turbulent contexts, owing to their adaptive capacity and readiness to embrace innovation, “...this is the ideal type of school organisation for dealing with the changing external environment, for facilitating organisational change and innovation, and even effectiveness.” (Kools & Stoll, 2016b, p.10).

The need for responsive and adapt to contextual changes has always been true for schools and education systems, “The reason that we need learning organizations is related to the discovery that change in complex systems is non-linear - full of surprises.” (Fullan, 1993, p.4).

This is universally true prior to the publication of the OECD SLO concept in 2016 and following it (Table 3).

Table 3: The need for system-responsiveness to change (international contexts) (a) pre- 2016 (b) post-2016

1999 – 2016		
Context	Focus	Authors
Australia	The Leadership for Organisational Learning and Student Outcomes Project (LOSOL)	(Silins et al., 1999)
South Africa	Educators’ perceptions of Schools as Learning Organisations	(Moloi et al., 2002)
United States	The Professional Development School as a learning organisation	(Harris & van Tassell, 2005)
Singapore	Adopting the SLO philosophy	(Retna & Tee, 2006)
Malaysia	Transformational leadership/ teacher engagement	(Mohd Hamzah et al., 2011)
Israel	Schools as Learning Organisations	(Schechter & Mowafaq, 2013)
2016 – present day		
Context	Focus	Authors
Wales	Schools as Learning Organisations SLOs and Staff Outcomes Schools in Wales as Learning Organisations	(Gouédard et al., 2019b; OECD, 2017a, 2018c; Stoll & Kools, 2017a)
Greece	Schools as Learning Organisations (Measurements/ Indicators)	(Papazoglou & Koutouzis, 2020)
United States	Building System-Wide Collaboration	(King Smith et al., 2020a)



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	Action research study using the short form of the DLOQ survey (Yang et al., 2004) in Southern United States district of Southern Public Schools (SPS)	
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*(Adapted from p.24, Kools & Stoll, 2016b)*

In Singapore, the rationale for the SLO concept prior to 2016 states,

*Such fast-paced changes in the system spell deep challenges to the schools. Schools need to respond to new realities and this has forced many school leaders and teachers to grapple with new challenges on a continual basis. How well a school rises up to the challenge will depend very much on its learning capacity. Schools therefore need to be learning organisations.*

*(Retna & Tee, 2006, p.144)*

Since 2016, the need adapt to rapidly changing contexts continues to be the rationale for schools to realise themselves as SLOs, *“Schools cannot afford not to change as the world is constantly changing...schools which operate as Learning Organisations can effectively deal with new challenges and provide quality education.”* (Papazoglou & Koutouzis, 2020, p.2).

This is further reinforced by assertions of the SLO’s suitability to such a constantly changing world,

*The argument is that a school that is a learning organisation deals better with the changing external environment, facilitates change and innovation, induces improvements in the human resource outcomes of school staff, such as job satisfaction and self-efficacy, and ultimately enhances student learning.*

*(Kools, George, et al., 2020)*

This common feature is important in the Welsh SLO model, located within widescale policy reform context of the Welsh education system (Gouédard et al., 2019; OECD, 2017b, 2017a, 2018b, 2018d; OECD & Welsh Government, 2018),

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*Wales has an ambition that all schools develop as learning organisations, in keeping with OECD principles. Schools that are learning organisations have the capacity to adapt more quickly and explore new approaches, with a means to improving learning and outcomes for all their learners.*

(Education Wales, 2017a, p.12)

The Welsh SLO model is, therefore, deliberately designed with responsiveness to change in mind. Its design focuses on developing the collective capabilities and capacities required for it to respond to new and unfamiliar contexts.

This connects with the next common feature of the SLO concept and model.

Common Feature 2: The SLO adapts and grows in response to **change**, it is ‘organic’ and closely connected to the external environment

A second common feature of the SLO concept is the nature of its response to change as organic’ and in relation and sensitive to its external context. The SLO’s ability is to respond to change by integrating the adaptations it makes, *“Learning organizations neither ignore nor attempt to dominate their environments. Rather, they learn to live with them interactively...Change forces are seen as inevitable and essential to learning and growth.”* (Fullan, 1993, p. 84).

The SLO adapts because it continuously learns *as* an organisation. It gathers knowledge from immediate context and uses its systems of knowledge transfer to share this across the organisation.

In the SLO literature base, Silins and Mulford (2002) identify four dimensions of the nature of systematic learning in the SLO concept. These dimensions describe the cultural conditions for dynamic, integrated individual and collective learning that ensures that the SLO has the capacity and capability to learn,

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- (1) Trusting and collaborative climate created by processes and systems
- (2) Teachers taking initiatives and risks
- (3) Shared and monitored mission
- (4) Relevant, challenging, and ongoing professional development

(Silins & Mulford, 2002)

Bowen et al. (2006) similarly describe the nature of organisational learning in the SLO as dynamic interplay,

*Actions, such as teamwork, operate as a “lubricant” in the change process; sentiments, such as cohesion, provide the ‘glue’ that keeps the team together as the work group expands its structural and operational boundaries to accommodate the change process.*

(Bowen et al., 2006, p.99)

Further work by Bowen et al. (2007) describes the capacity of the SLO to learn from its external environment, with others, beyond its organisational boundaries, “...working to promote the operation of schools as learning organizations requires a focus beyond any single school.” (Bowen et al., 2007, p.206).

The capacity and capability of every school to learn from beyond its organisational boundaries through networks (Azorín & Fullan, 2022; Bryk, 2015; Díaz-Gibson et al., 2014; Greany & Higham, 2018; Prenger et al., 2019; van Waes et al., 2016) is reflected in the entirety of Dimension 6 of the Welsh SLO model, which begins with, “*Learning with and from the external environment and wider learning system*” (Welsh SLO – Dimension 6).

The underlying elements of Dimension 6 describe what this entails:

- *The school is an open system, welcoming approaches from potential external collaborators.*

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- *The school scans its external environment to respond quickly to challenges and opportunities.*
- *Staff collaborate, learn and exchange knowledge with peers in other schools through networks and/or school-to-school collaborations.*
- *The school collaborates with parents/carers and the community as partners in the education process and the organisation of the school.*
- *The school forms partnerships with higher education institutions, businesses and/or public or non-governmental organisations in efforts to deepen and extend learning.*
- *Partnerships are based on equality of relationships and opportunities for mutual learning.*
- *ICT is widely used to facilitate communication, knowledge exchange and collaboration with the external environment.*

(Welsh Government, 2017b)

The SLO therefore has the capacity to be highly responsive to change because it is closely attuned to its external environment, *“Suffice it to say that the school as a learning organization is dynamically plugged into its environment in a variegated and complex set of relationships.”* (Fullan, 1995, p.234).

The external relationships of the SLO extends into the partnerships it establishes between other schools of different phases and settings, with education institutions, and with organisations and agencies working across the wider system. All these external relationships enable school, system leaders and practitioners in the SLO to share knowledge and expertise with each other, exemplifying the SLO’s learning through its connections with its wider community,

*...where schools share the common goals of maximizing the performance and achievement of students, preparing quality teachers and other school personnel, enhancing the professional development of novice and veteran teachers and inquiry into best practice.*

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(Harris & van Tassell, 2005, p.181)

This second common feature of the SLO concept is vital if schools are to be sustainable and resilient as they face the complexities and uncertainties of the modern world,

*Schools in the 21st century are not sustained by working in isolation but instead need to be connected to diverse partners, networks and professional learning communities. What’s “out there” is “in here” in the SLO.*

(Kools & Stoll, 2016b, p.54)

*... developing other parts of the system to become learning organisations is essential to support schools to develop as learning organisations. Without government/policy support for collaboration and collective learning and system leaders modelling and distributing leadership, schools as learning organisations will continue to operate in isolation (if at all), especially in an age of accountability.*

(Kools, George, et al., 2020, p.2)

Not only are SLOs designed to be resilient and adaptable when faced with external contextual factors, but they place an emphasis on the continuous learning of individuals, teams and across the wider organisation. This creates an organisational culture that supports adaptation and innovation from within the organisation. This is the next common feature of SLOs.

### Common Feature 3: The SLO emphasises continuous learning to stimulate a **culture of change** and innovation

The third common feature of the SLO concept focuses on the methods and strategies individuals use in their learning as part of a culture of innovation and change.

These methods include enquiry, problem-solving and opportunities for experimentation, “Essentially, the SLO’s culture is infused with curiosity.” (Kools & Stoll, 2016b, p.46). Two

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distinctive features of the nature of learning are common in the SLO concept, (1) individual learning is *continuous* and (2) professional learning is *collaborative*.

Continuous *individual* professional learning is an integral feature of the SLO concept. In the Welsh SLO model, Dimension 2 is dedicated to explicitly articulating what this looks like. Fullan (1995) identifies six dimensions that develop the knowledge and skills of individual teachers in the SLO,

- (1) teaching and learning
- (2) collaboration
- (3) context
- (4) continuous learning for themselves
- (5) knowledge of the change-process
- (6) moral purpose

(adapted from Fullan, 1995)

More recently, the specific nature of the individual professional learning in the SLO model is distinctive to the SLO, “*Promoting and supporting continuous professional and experiential learning for all staff*” (Papazoglou & Koutouzis, 2020, p.9).

King Smith et al. (2020) identify the methods to connect continuous individual learning with *collaborative* professional learning, where “*learning labs*” enable teachers to learn both individually *and* together,

*The discussions from the labs helped to challenge their views, beliefs, or mental models...shifting these views was a critical step in the process of changing behaviours. At the group level, cross-functional teams working together created the learning space that allowed school and district level leaders to overcome the territorial boundaries that inhibited cultural change. Working together led to a stronger spirit of collaboration and a sense that they were all on the same team.*

(King Smith et al., 2020, p.16)

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A culture of individual learning is an integral expectation in the SLO concept. This stimulates collective, organisational professional learning. Once individual learning is underway, individual thinking starts to shift, and sustainable changes emerge and become part of a collaborative learning effort,

*Transforming a school into a LO requires a cultural change. Such change involves shifting to organizations where people collaborate in the achievement of goals as well as in organizational changes that remove obstacles to learning and development – barriers such as a deep-seated mentality in non-innovative positions, too much concern for operational functions, a reluctance to invest in training programs and a lack of real people empowerment.*

(Gil et al., 2019, p.27)

The result strengthens the interconnectedness of the individual with the collective learning activities of the SLO. In the same way, the Welsh SLO model addresses the interplay of individual and collaborative learning in subtly different ways, reflecting *authentic* collaboration, as opposed to learning that reflects ‘cooperation’, ‘communication’ or ‘coordination’, all of which,

*...have their place, but do not go deeply enough...Schrage’s (1990) definition of collaboration captures the idea nicely: Collaboration is the process of shared creation: two or more individuals with complementary skills interacting to create a shared understanding that none had previously possessed or could have come to on their own.*

(Fullan, 1993, p.94)

According to later work, Fullan (1995), states that time and resource are invested in the SLO. This provides teachers with opportunities to learn individually *and* reflect and learn collaboratively. This is prioritised in the SLO to build high levels of capacity and capability that contribute to the effectiveness of the school,

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*...a school operating as a learning organization would recognize that providing teachers with time to consider and discuss how they might improve the effectiveness of the school enhances the productivity of contact hours.*

(Fullan, 1995, p.86)

The collaborative learning in the SLO happens because of its organisational culture. This culture is one that embraces individual and collaborative learning as a reflection of its shared beliefs, the norms it supports, and the opportunities it provides for every member of its community,

*The action component of learning organizations, which reflects employees’ approach to work that provide opportunities for learning and the demonstration of shared responsibility and collective competence in addressing organizational goals.*

(Bowen et al., 2007, p.201)

The SLO culture establishes a shared responsibility for learning and reinforces the dual interplay between collaborative learning and individual learning, “*...almost all scholars highlight the need for promoting team learning and collaboration, and continuous individual learning.*” (Kools & Stoll, 2016b, p.24).

Once established, the ideal conditions in the SLO for individual and collaborative learning in the SLO generate organisational learning, “*The Welsh SLO model also outlines the importance of professional learning that is collaborative, continuous, and focused on all learner needs.*” (Harris et al., 2022b, p.11).

In the SLO, practitioners and leaders engage in their own and each other’s learning beyond hierarchical status or traditional role expectations or assumptions, “*...open communication, collaboration, teamwork, and risk-taking. For this to occur, school districts have to be intentional about creating structures and the space to allow for learning among leaders.*” (King Smith et al., 2020, p.16).



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This reflects the distinctive learning culture of the SLO and leads into the fourth common feature of the SLO concept across the literature.

Common Feature 4: Creates the **cultural** conditions for learning by establishing the beliefs, values, and norms of the organisation

The fourth common SLO feature is its learning culture and the nature of professional learning and mindset it promotes. Professional learning in the SLO happens through joint enquiry and problem-solving,

*Dialogue was also an important finding of this study. The participants indicated that the principal should listen to criticisms that come from different quarters and he/she should see these as positive growth experiences. They also indicated that where clashes existed it was necessary that the staff members find ways of ironing out their differences.*

(Moloi et al., 2002, p.629)

They have the “...‘courage’ to accept and learn from mistakes” and become, “...highly enthusiastic to the idea of experimentation and of its importance to school effectiveness.” (Retna & Tee, 2006, p.148). Risk-taking, experimentation and innovation is therefore distinctive in the learning culture of the SLO,

*...teachers associate a culture of willingness to take risks with their own learning...psychological safety can be reinforced through organisational policies such as blameless reporting systems, training in coaching skills, and making failures public as a means for learning. These messages resonate with the SLO literature. Several SLO scholars have for example noted the need for schools to support and protect those who take initiatives and risks and reward them for it.*

(Kools & Stoll, 2016b, p.48-49)

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This distinctive learning culture requires high levels of trust, teacher agency and autonomy, *“...teachers believe they are empowered in areas of importance to them, especially in schools where there are collaborative, cooperative, and consultative decision-making processes in place, teachers will respond to reform as actors and leaders.”* (Mulford & Silins, 2010, p.173).

The SLO learning culture enables teacher to engage in meta-learning where, *“...colleagues are learning about their learning together: meta-learning with peers”* (Kools & Stoll, 2016b, p.43) and, *“...where new and expansive patterns of thinking are nurtured, where collective aspiration is set free and where educators are continually learning how to learn together.”* (Kools & Stoll, 2016b, p.88).

This meta-learning is articulated in Dimension 4 of the Welsh SLO, where teachers in the SLO engage in learning *how* to learn with each other.

Kools and Stoll (2016b) highlight the nature of the SLO learning culture as, *“Inquiry for deep understanding and wise understanding”* (2016b, p.46). This exists alongside *“Innovation and exploration”* (2016b, p.47) and where there is, *“Openness, risk taking and learning from failure”* (2016, p.48).

The SLO literature affirms that leadership is vital to establishing this learning culture where innovation and experimentation can occur and where leaders engage in, *“...fostering group goals, modeling desired behavior for others, providing intellectual stimulation, and individualized support.”* (Hallinger, 1999, p.3).

Establishing the SLO learning culture challenges schools to change traditional organisational structures and redefine the relational roles of everybody in the school,

*The nature of this reculturing is developing collaborative work cultures that focus in a sustained way on the continuous preparation and professional development of teachers in relation to creating and assessing learning conditions for all students. In*

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*the course of reculturing, teachers relate differently to each other, students, and the broader community. It is a massive change because it goes to the core of the culture of schools, and must eventually go hand in hand with major structural changes.*

(Fullan, 1995, p.233)

The learning culture of the SLO is one that is safe. It is conducive to shared thinking, reflective dialogue and allows ideas to be shared across organisational boundaries (Keefe & Howard, 1997) reflecting a *continuous* learning process (Coppieters, 2005).

In the SLO, teachers are empowered (Fullan, 1995). They are committed to their task (Moloi et al., 2002) and build their capacity for growth (Silins & Mulford, 2002). They are more likely to move out of their comfort zones (Retna & Tee, 2006) and are open to change through “*interactive professionalism*” (Paletta, 2011, p. 739).

In the learning culture of the SLO, they are, “*open to others questioning their beliefs, opinions and ideas*”, and with this, prepared to see “*problems as opportunities for learning*” (Papazoglou & Koutouzis, 2020, p.12).

### Section summary

This section of the literature review has examined the four common features of SLOs identified by Kools and Stoll (2016b). Each of the features is evident in the 7 Dimensions of the Welsh SLO model (Welsh Government, 2017b).

The next section of this review explores the wider related school improvement literature that underpins the specific Welsh SLO model. This approach provides, first, an opportunity to examine each of the 7 Dimensions of the Welsh SLO model, and their underlying elements, through the underpinning evidence base.

Second, this detailed examination of the Welsh SLO model is mapped against the design of the research project in this study. This approach confirmed the suitability of the selected

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Leading Collaborative Learning Project (LCL Project) to respond to the research questions and research problem central to this research. The research project is explained in detail later in this thesis.

### Section 3: An examination of the wider literature base underpinning the Welsh SLO model

The wider evidence base that underpins the Welsh SLO model (Welsh Government, 2017b) is extensive and far-reaching. For the purposes of this review, a four-step approach was adopted to organise and focus the relevant and related international evidence base. This provided manageable parameters for the scope of the review process.

This four-step process entailed:

1. Identifying wider themes - first, the review examined the wider knowledge base to explore themes including, although not exclusively, professional learning, school reform and improvement, teacher and leader learning, systems thinking, school to school collaboration, knowledge exchange, and networks from the wider evidence base. These themes were then mapped onto the Welsh SLO model.

2. Establishing knowledge domains - second, the review examined the Welsh SLO model and identified its central themes traced *from* the Welsh SLO model *out to* the wider knowledge base. This established the wider knowledge domains that provided the parameters to contain the scope of the review. These knowledge domains were:

- (1) school improvement and effectiveness
- (2) professional learning
- (3) professional capital
- (4) school leadership

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4. Identifying focus areas - the literature was then organised into two categories of *relevant* and *related* literature to identify focus areas in each of the four knowledge domains.

The *relevant* literature was selected based on its relevance to these wider knowledge domains. In contrast, the *related* literature was selected according to the related themes identified in the detailed exploration of the Welsh SLO model. The themes from both the relevant and related literature were then combined. This established four (focus) areas within the knowledge domains (parameters).

5. Establishing clear lines of sight - Finally, the fourth organising step directly examined the themes in the Welsh SLO model described in the 7 Dimensions and their underlying elements.

First, occurrences of the themes from the *relevant* and *related* literature were identified as either ‘evident’ or ‘significantly evident’ in the Welsh SLO model, according to their explicitness and/or frequency in the Welsh SLO model.

Second, the design of the research project in this study was mapped against the 7 dimensions of Welsh SLO model and its underlying elements (*Table 4*).

*Table 4: Establish clear lines of sight*

Evidence Base drawn from the four focus areas in the wider literature domains		Themes for exploration (relevant and related)	Evident in Welsh SLO Dimensions <i>*Significantly</i> <i>**Evident</i>	Research project design – evident themes in LCL Project & ‘Clarity’ resources
1	<b>DOMAIN 1:</b> <b>Organisational change</b> <b>FOCUS AREA: School improvement and effectiveness</b>	School culture; organisational learning opportunities; SLOs; working conditions; structure, routines, and	*1/2  **3	School improvement framework (14 Parameters); data walls; case management meetings; organisational change; school culture, expectations & norms;

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		norms; conditions for innovation		pedagogical, learning & development focused training
2	<b>DOMAIN 2: Professional Learning (PL)</b> <b>FOCUS AREA: Collaborative professional learning</b>	Networks; PLCs; middle leadership; teacher identity; Growth Mindset in teachers; reflective practice; coaching; lesson study; action research; evidence-informed practice; effective professional learning;	*2/3/4/5 **6	System & school leadership of PL; design & monitoring of PL; engagement in PL; learning walks & talks; immersive, experiential PL; knowledge transference & practice sharing in-schools, between schools, cross-regional
3	<b>DOMAIN 3: Professional Capital</b> <b>FOCUS AREA: Social capital and trust</b>	External S2S networks; school clusters; knowledge exchange; decisional, human, and social capital; power of networks; networked learning; multi-school collaboration; trust; system wide collaboration; how IT supports PL; System as a learning system; capacity building and innovation	*6/7/ 4 **1/2/3	Collaborative processes; system leader relationship-building; all-Tier & international engagement, teacher-leader-expertise sharing, processes to build new & common knowledge; relational trust; relational agency; ‘homework challenges’; co-construction with school & system leaders; contextualisation of resources
4	<b>DOMAIN 4: School Leadership</b> <b>FOCUS AREA: Distributed leadership</b>	Teacher leadership; teacher agency; middle leadership; purposeful and authentic collaboration; evaluation of professional learning; collective efficacy; teachers as lead learners	*1/4/7 **2/3/5	Leadership role of ‘Knowledgeable Other’; modelling & monitoring strategies, teacher agency, teacher- leadership; assessment literacy for-all

The four organising steps for this part of the review established theoretical and practical coherence across the evidence base, the Welsh SLO model and the study in this research, the LCL Project, an overview of which is presented next.

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The Leading Collaborative Learning Project (LCL) in this thesis was initially conceived as a national collaborative school improvement project. It was not explicitly connected with the Welsh SLO model. This extensive review of the general LO knowledge base, however, illustrates how the design of the LCL Project reflects much of the general LO literature examined in this first part of the review, namely:

- **Space and expectation for dual reflective practices** (Argyris & Schön, 1978) – LCL Project participants were provided time and space in their own project teams as individuals and with the wider cohort to reflect on their existing and developing practices during the in-person training sessions (specifically the ‘homework’ feedback sessions) and in-between the training days.
- **Systems thinking** (Senge, 1990) – this underpinned the ambition, scope and reach of the project design, bringing together LCL Project participants from Tiers 1,2 and 3 across the system to learn about, from, and with each other and the external facilitator.
- **Organisation of people** (Örtenblad, 2002) - LCL Project participants were deliberately organised as multi-level (middle and senior leaders) school project teams (Tier 3) to work with and a wider cross-regional cohort of project teams and system leaders (Tier 1 & 2) to maximise collective learning in the collaborative design of the project.
- **Knowledge mobilisation** (Garvin, 1993) – system leaders supported the school project teams during the training sessions and, significantly, worked with the project schools to gather and share knowledge from other project schools from across the system, connecting them and facilitating learning between them in between the training sessions.
- **Processes, project culture and routines** (Yang et al., 2004) - Decisions were taken concerning the delivery methods and allocation of roles of LCL Project participants,

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system leaders and school project teams, to sustain a continuous professional learning programme over two years.

By identifying the design of the LCL Project and mapping this against the literature related to the LO, SLO and specifically, the Welsh SLO Model, clear lines of sight leading were established leading from the research questions, the research problem and the evidence base. These lines of sight subsequently informed the decision-making processes and in the next phases of the literature review presented in this thesis.

The next section of this review presents the results of this 4-step process that organised, confirmed, and selected the relevant and related literature selected for review.

The focus areas within the knowledge domains were:

DOMAIN 1: Organisational change → FOCUS: School improvement and effectiveness

DOMAIN 2: Professional learning → FOCUS: Collaborative professional learning

DOMAIN 3: Professional Capital → FOCUS: Social capital and trust

DOMAIN 4: School leadership → FOCUS: Distributed leadership

#### DOMAIN & FOCUS 1: Organisational change through the focus of school improvement and effectiveness

The literature that directly relates to organisational change in schools typically refers to school *cultural* change. The influence of culture when change-efforts are underway feature strongly in both the wider school reform, improvement and effectiveness literature (Dufour, 1997; Fullan, 1993; Hargreaves, 2010; Harris & Jones, (Eds.) 2016; Shirrell et al., 2019), and in the specific SLO literature (Brandt, 2003; Coppieters, 2005; Harris, Jones, et al.,



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2022; Kools, Stoll, et al., 2020; Kools & Stoll, 2016c; Retna & Tee, 2006; Stoll & Kools, 2017b).

The Welsh SLO model explicitly describes its learning culture in Dimension 4 as, “*a culture of enquiry, innovation and exploration*” (Appendix 1 - 1.1. *The Welsh SLO Model*). When viewed as a holistic organisational model, the Welsh SLO model articulates a whole-school culture of learning and change.

This establishes positive, collaborative cultural behaviours as an essential part of its change processes to develop a shared vision focused on learners. The Welsh SLO model specifies how its shared vision is *co-created* and is integral to its cultural norms, “*The school’s vision is the outcome of a process involving all staff, including governors and other stakeholders*” and for, “*Learners, parents/carers, the external community and other partners are invited to contribute to the school’s vision.*” (Welsh Government, 2017b).

The content and process of establishing the shared vision of the Welsh SLO model is perhaps the strongest indicator of the organisational culture it endorses. The beliefs, norms, and opportunities of the Welsh SLO model all stem from this shared vision. These features of its learning culture are demonstrated in how it is co-created, what it includes and how this informs decision-making throughout the organisation.

Establishing and maintaining the shared vision of the SLO is critical to sustaining the improvement efforts of the school (Chen et al., 2016; Harris, Jones, et al., 2022; Isaacson & Bamberg, 1992; Retna & Tee, 2006).

The school improvement framework, resources, and training materials of the LCL Research Project in this study reflect the same status to the establishment of a co-constructed, shared whole-school vision that anchored all members of the school community to its purposes and goals using the 14 Parameters framework (Sharratt, 2018) (Appendix 2 - 2.1 *The 14 Parameters Framework*).

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Such is the importance of this shared vision that it is the first of the 14 Parameters and one of the three ‘non-negotiables’ within the whole framework, accompanied by Parameters 1, 6 and 14 of the LCL Project (Sharratt, 2018).

The *content* of the Welsh SLO vision is purposeful, shared, and pragmatic. It is a school vision to which *every* member of the school community contributes, echoing Fullan, “*We should not think of vision as something only for leaders. It is not a farfetched concept. It arises by pushing ourselves to articulate what is important to us as educators...*” (Fullan, 1993, p.6)

The Welsh SLO model’s vision is also inclusive. It focuses on meeting *all* the needs of *all* its learners. The Welsh SLO model explicitly places the four purposes of its new curriculum (Welsh Government, 2015a) at its centre. This ensures that all efforts of the Welsh SLO model are focused, reflecting the OECD SLO concept where, “*learning and teaching are orientated towards the vision*” (Kools & Stoll, 2016b, p.32).

The co-creation process of the Welsh SLO model is explicit. It involves *all* members of the school community with, “*all staff, governors and other stakeholders*” (Dimension 1 - Welsh SLO model). This reflects the literature where the co-creation processes galvanise the school community and give, “*meaning to work*” (Fullan, 1993, p.13) and a common purpose to drive the direction of the school.

Co-creation processes also promote ownership, shared responsibility and stimulate engagement (Boyd, 2014; Fairhurst & Uhl-Bien, 2012; Isaacson & Bamburg, 1992; Jokić et al., 2012). These co-creation processes align the Welsh SLO model with its policy context, where co-construction processes are integral to delivering the National Mission,

*The Curriculum for Wales guidance is the result of co-construction. It has been developed by practitioners for practitioners, bringing together educational expertise and wider research and evidence. For the reforms to be a success, we must continue this process of co-construction in everything we do, at every level.*

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(Welsh Government, 2020b, p.18)

Co-construction has become a norm in the Welsh policy context as part of wider system reform process. This is cited as crucial to the maintenance of trust and shared ownership, during the main disruptions of COVID-19,

*...Co-construction means sharing problems so that solutions are owned by everyone. As schools develop their curricula, partners will develop and deliver support. All involved will be valued and understand why things are done. Co-construction requires people to work across traditional boundaries: between tiers of education as well as between disciplines, schools, phases and with stakeholders beyond the education system. This ensures solutions are tested with different perspectives, using understanding from different experiences and expertise.*

(Welsh Government, 2020b, p.18)

Co-construction is also cited as crucial to maintaining momentum following the impact of COVID-19,

*In addition, the Welsh Government set out the principles that should underpin schools’ curriculum preparation and design: development through co-construction; effective pedagogy; engagement with professional learning and networks; embedding the qualities of schools as learning organisations; considering the wider school context, including how the curriculum can support the ALN Code, Cymraeg 2050 and the promotion of learner health and well-being.*

(Welsh Government, 2022, p.12-13)

School leaders are integral to maintaining the integrity of the vision to set the direction for the school. With this, however, the shared process of vision-setting evident in the Welsh SLO model benefits from a distributed leadership perspective.

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Here, responsibility for the vision is extended beyond the exclusive domain of a single school leader, establishing, “...a shared and collegial leadership in the school, where all grow professionally” (Hord, 1997, p.7-8) and where, “Even when school leaders work separately but interdependently in pursuit of a common goal, leadership practice can be stretched across the practice of two or more leaders.” (Spillane et al., 2001, p.25).

The vision of the Welsh SLO motivates and galvanises the school community to work towards an inclusive and equitable moral purpose, that, “...encompasses both the present and the future, and is inspiring and motivating” (Dimension 1 – Welsh SLO model). It thereby encompasses the aspirations of and for the wider organisation (Fullan, 1993; Hiatt-Michael, 2001; Murphy & Torre, 2015).

The importance of this purposeful, collaborative, and galvanising vision-setting processes for the learning culture of the Welsh SLO model is crucial, “If the school as a learning organisation is to be more than just the latest label, then leaders at all levels in schools will need this to be their shared ambition, their core purpose, and their collective focus for school improvement.” (Harris & Jones, 2018b, p. 353).

The vision of the Welsh SLO model is distinctive. It explicitly places learner well-being central to an inclusive focus, “...enhancing learners’ cognitive and social-emotional outcomes (including their well-being)” (Welsh SLO model – Dimension 1). This reflects the holistic approach required to deliver its core purpose, “The Welsh SLO model focuses on ‘enhancing learners’ cognitive, social-emotional outcomes and their wellbeing...The Welsh SLO model is premised upon high expectations of the learning and the wellbeing of all learners.” (Harris, Jones, et al., 2022b, p.6).

This also resonates with the emphasis in the international literature of the need for schools to set and sustain high expectations for *all* learners (Ainscow, 2016; Fullan & Hargreaves, 2013; Hargreaves & O’Connor, 2018a; Hopkins & Harris, 1997; Leithwood et al., 1998; Murphy & Torre, 2015).

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This attention to *holistic* learner needs, and specifically their well-being and mental health, is vital in both curriculum content and teaching methods (Lordan & McGuire, 2018).

This also resonates with recent efforts of the OECD’s Programme for International Student Assessment (PISA). These assessments now measure student well-being (OECD, 2017d) and more recently, have developed system and school reform and effectiveness ‘indicators’ to evaluate efforts that address learner wellbeing at scale (Gouëdard, 2021; Sizmur et al., 2019; Stoll & Kools, 2017b). Recent PISA studies similarly reflect the importance of capturing assessment data on learner wellbeing (OECD, 2017d, 2020e, 2020d).

The evidence strongly supports the assertion that the most effective change and improvement efforts are those where schools successfully meet the holistic needs of the most disadvantaged (Ainscow, 2016; Azorín & Ainscow, 2020; Azorín et al., 2019; Fullan, 2011; Fullan et al., 2021; McGonigal et al., 2007; Sharratt, 2019). In doing so, these improvement efforts demonstrate a “...*deep commitment to the moral purpose of raising the bar and closing the gap for all students.*” (Fullan, 2011, p.17).

The importance of meeting *all* the needs of *all* learners within the Welsh SLO model strongly aligns it to its wider policy landscape in addition to the relevant SLO literature.

Furthermore, the Welsh SLO model embraces the ambition to meet the ‘Four Core Purposes’ for *every* learner in the ‘Curriculum for Wales’ (CfW) (Education Wales, 2021; Welsh Government, 2015a, 2020a, 2021a),

- *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*

(Welsh Government, 2015a)

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The centrality of learner wellbeing the Welsh SLO vision is reinforced by the visual representation which intentionally places these ‘Four Core Purposes’ at its centre, (*Appendix 1 - 1.1. The Welsh SLO Model*),

*Within the Welsh SLO model, the idea of vision setting is premised on inclusivity. It is primarily concerned with improving the outcomes of all learners, reflecting a deep commitment to equity and inclusion...The Welsh SLO model therefore embodies a deep commitment for schools to meet the holistic needs of the most disadvantaged and vulnerable learners as part of their school improvement efforts.*

(Harris et al., 2022b)

Learner wellbeing gained increased attention following the disruptions of COVID-19 (Chapman & Bell, 2020; Fullan et al., 2021; Hargreaves & Fullan, 2020; Lucas, 2021; OECD, 2020c; Trinidad, 2020; Welsh Government, 2020a). The response was to ensure a stronger relationship was established between learning and wellbeing, of all stakeholders, learners and professional alike, as a result of the of the impact of COVID-19 across the system,

*Both wellbeing and learning have suffered because of their separation. Combining them generates an interactive force that represents a powerful new unified learning proposition that becomes the centrepiece for contending with and transcending the growing complexities.*

(Fullan et al., 2021, p.15)

*We do not know, long term, what the impact, effects and consequences of opening schools in the current pandemic might prove to be, but it is clear that the mental health of young people who feel trapped or isolated at home is very real issue and has the potential to become a greater problem than the virus itself. In this time of turmoil where quick solutions are required in a fast-changing world, the priority must be the well-being of leaders, teachers, learners, parents, and all stakeholders involved in the reopening of school life.*

(Harris & Jones, 2020, p.243)

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In response to the disruption of COVID-19, the centralisation of learner wellbeing *as part of* academic success was possibility even more critical to establishing inclusive, equitable and holistic schools and systems,

*At a time when the social and economic consequences of the COVID-19 pandemic look depressing it is more important than ever that our purpose and focus is building back better and more equitable education systems so that all learners can succeed irrespective of their background.*

(Chapman & Bell, 2020, p.234)

The shared vision, in both its content and co-creation processes, is fundamental and distinctive to the Welsh SLO model. It reflects critical elements of school and system improvement evident in the literature, galvanising individual and organisational efforts around a shared moral purpose directed towards the holistic needs of every learner (Fullan, 2011; Hargreaves & O’Connor, 2018a; Munby & Fullan, 2016). This also resonates with the policy principle of co-construction highlighted in Chapter 1 and evident in the Welsh curriculum reform process,

*Instead of teachers simply being the passive recipients of change, they are actively leading the change process and jointly responsible for the delivery of a major system-level change. This is not to suggest that the process of co-constructing a new national curriculum is free of challenges or tensions or critics, in fact the reverse is true.*

(Harris et al., 2020, p.2)

This same co-construction approach was evident throughout the LCL Project as the focus for this research, hence its suitability for this thesis.

From the outset, the planning and design of the LCL Project was undertaken collaboratively between the external facilitator and the Regional Consortia. The content and delivery of the school improvement framework and practical tools in the resources and training sessions

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were designed around co-creation processes. These took place between staff, schools, across the system and with learners in the classroom.

With the vision and organisational beliefs articulated, the Welsh SLO model establishes a distinctive learning culture in the norms and opportunities it articulates for collaborative professional learning. This keeps the learner central to all decision making (*Appendix 1 - 1.1. The Welsh SLO Model*). This also drives an inclusive vision that addresses the holistic needs of learners in an equitable, inclusive way, evident in the literature, “*Leading for equity means that working on the culture is far more important than making structural changes because, ultimately, it is the school culture that will bring sustained gains in student performance.*” (Harris & Jones, 2020b, p.74).

#### DOMAIN & FOCUS 2: Professional Learning through the focus of collaborative professional learning

The Welsh SLO model integrates three strands of individual, collaborative, and organisational learning. By drawing these three strands of learning together, the Welsh SLO model facilitates individual and collaborative professional learning alongside organisational learning in the school and across the wider system. This reflects the ‘integrative perspective’ of Yang et al.’s (2004) LO concept and the OECD (Kools & Stoll, 2016b) SLO concept.

Within these interconnected learning strands, it is the *collaborative* nature of professional learning that is a central feature of the Welsh SLO model. This too, was central to the design of the LCL Project in this research.

As a two-year cross-regional, national multi-school school improvement and professional learning project, *collaborative* professional learning was integral to the school improvement framework in the LCL Project (Harris et al., 2022a).

The LCL project intentionally utilised *collaborative* professional learning to maximise knowledge exchange between project participants both in and between schools. This was



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also designed to mobilise knowledge *across* the wider system via the multi-tier structure of the participants in the project cohort. *Collaborative* professional learning is therefore the focus area within the wider knowledge domain of professional learning in the next section of the review.

Some of the earliest school improvement literature describes teaching as both isolating and isolated (Lortie, 1975, 2002; Rosenholtz, 1989). Efforts to break down environmental and mindset barriers and encourage collaborative practices and nurture collegiality are problematic (Hargreaves, 2019; Little, 1982, 1990).

The importance for teachers to work in school culture where they collaborate to enquire, share practice and develop new ideas continues to be a significant and influential feature of the wider school improvement and professional learning literature (Azorín et al., 2020; Cordingley et al., 2015; Fullan, 2011; Fullan & Quinn, 2016; Hargreaves & Elhawary, 2019; Harris, Jones, & Cooze, 2020; Lee & Louis, 2019; Robinson & Timperley, 2007; Sinnema et al., 2021).

When barriers are reduced, and opportunities are created to facilitate practice sharing and joint development of resources, new insights can emerge, and learning can improve (Datnow, 2018; Lieberman & Mace, 2008; Sharratt & Planche et al., 2016; Sharratt & Fullan, 2009; Spillane, 2018; Webs & Holtappels, 2018).

Lee and Louis (2019) identify three elements of effective collaborative professional learning:

- (1) **Shared responsibility** – teachers share a collective sense of responsibility for all students in the school, not only those they directly teach
- (2) **Derivatization of practice** – teachers readily and habitually invite colleagues into their classrooms to share their practice, ideas and thinking

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- (3) **Reflective dialogue** – focused, purposeful professional conversations about changes that need to be made to specifically improve student outcomes

(Adapted from Lee & Louis, 2019, p.86)

These elements of collaborative professional learning are evident in the professional learning approaches of the Welsh SLO model. Here, teachers can, “...reflect together on how to make their own learning more powerful” and “...learn how to work together as a team” (Welsh SLO model - Dimension 3). Collaborative professional learning improves individual and collective teacher quality (Cordingley et al., 2015b; Kennedy, 2016; Wiliam, 2013). It also critically informs teachers to improve practice (Scutt & Harrison, 2019; Wiliam, 2016).

Improving teacher quality by developing the effective use of data and engaging with research is similarly directly linked to improving the quality of pupil learning experiences (Admiraal et al., 2019; DuFour, 2016; Harris & Jones, 2017; King, 2016; Prenger et al., 2019; Sims & Fletcher-Wood, 2018). In addition, improved teacher quality has a positive impact on student progress (Godfrey et al., 2019; Kennedy, 2016; Netolicky, 2016; Robinson et al., 2009), and, with this, also on equity, “...for poor pupils the difference between a good teacher and a bad teacher is a whole year’s learning.” (The Sutton Trust, 2011, p.2).

To ensure that collaborative professional learning has a positive impact on student achievement, however, requires deliberate design decisions,

1. Knowledge transfer - this needs to be deliberately attended to facilitate flow between teacher interactions and classroom practice.
2. Authentic collaboration – opportunities for challenge, curiosity, and discussion must be accommodated in teacher interactions to generate new knowledge and insights.
3. Relevant learning experiences – teacher interactions, sharing existing and generating new knowledge must have clear potential gains for current learners.

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4. Learner-focused – interactions must be focused, first and foremost, on achieving specific learning gains for learners, ahead of teacher learning gains.

(Adapted from Harris & Jones, 2020b, p.96 - 97)

Collaborative professional learning provides time and space for teachers and leaders to reflect on and improve their practice (Andrews-Larson et al., 2017; Harris & Jones, 2017c; Lai & McNaughton, 2016).

Establishing collaborative professional learning as an organisational cultural norm informs the professional dialogue both within and across schools and positively impacts on student outcomes (Fullan, 1995; Priestley et al., 2015; Priestley & Philippou, 2018; Sharratt & Planche et al., 2016).

Many models of collaborative professional learning are evident in the literature, and all share the principle of bringing practitioners together to actively reflect and discuss their practice.

Professional Learning Communities (PLCs) (Hallam et al., 2015; Harris & Jones, 2017b; Hord, 2004; National College for School Leadership, 2012; Stoll et al., 2006) are a familiar model of collaborative professional learning. This has been particularly true for Welsh schools over the past decade, where PLCs are,

*...a group of connected and engaged professionals who are responsible for driving change and improvement within, between and across schools that will directly benefit learners...The basic argument is that by cultivating professional learning communities it is possible for schools to improve student achievement through changing teaching and classroom practices.*

(Harris & Jones, 2010, p.175)

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In the Welsh SLO, Dimension 4 describes how the collaborative professional learning is focused on enquiry, “...to establish a rhythm of learning, change and innovation”. This views, “Problems and failures ... as opportunities for learning” (Welsh SLO Model - Dimension 4).

This establishes the ideal conditions for enquiry (Halbert & Kaiser, 2016; Katz et al., 2008; Muijs et al., 2014; Timperley et al., 2014), providing safe opportunities for teachers to learn from their peers (Azorín & Fullan, 2022; Bridwell-Mitchell, 2016; Brown, 2019; Brown et al., 2016a, 2016b, 2018; Higgins et al., 2015).

The integrated nature of individual and collaborative professional learning in the Welsh SLO model (Dimensions 2 and 3) establishes a culture that stimulates high levels of teacher agency (Biesta et al., 2015; Hord & Tobia, 2011; Kunnari et al., 2018; Priestley et al., 2015) and innovation (Bastedo, 2007; J. S. Brown & Duguid, 2001, 2009; Sarros et al., 2008).

This integration of individual and collaborative professional learning also strengthens the relationship between organisational structures and roles (Kruse et al., 1994; OECD, 2010a; Osmond-Johnson, 2019; Spillane, 2018; Timperley et al., 2014; Waite, 2019). This reflects the beliefs, norms, and opportunities to,

*... encourage teachers to co-operate, including providing time and opportunities for collective apprenticeships, are needed to foster collective teacher efficacy. Such activities can include teacher-initiated research projects, teacher networks, observation of colleagues, and mentoring or coaching. By supporting the conditions and activities most associated with effective teacher professional development, policy makers can increase the likelihood that students are positively affected too.*

(Schleicher, 2018, p.89)

Another benefit of this collaborative professional learning culture is in retaining effective practitioners to sustain knowledge exchange processes across the organisation, “As effective teachers remain in schools, opportunities for meaningful peer collaboration and a positive organizational culture become even more possible.” (Kraft & Papay, 2014, p.31).

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Dimension 5 of the Welsh SLO model specifies establishing systems of knowledge exchange within and between schools. This requires access to external evidence and research, combined with systematic sharing of internal pupil data to increase the impact of professional learning (Brown & Zhang, 2016; Coe & Kime, 2019; Cordingley, 2015; Day et al., 2009; Higgins et al., 2015; Wiggins et al., 2019; Younie et al., 2016). This is seen to have a positive effect on student outcomes, where, “...if teachers are able to engage with this research...their teaching quality should be improved. Correspondingly, improved teaching quality should then lead to improved student outcomes.” (Brown et al., 2018, p.39).

Access to knowledge from external sources of evidence supports research-informed practice, “The teaching profession will be...research-engaged, well informed and learning from excellence at local, national and international levels.” (Education Wales, 2017, p.11).

This locates the Welsh SLO both in the international policy context of research and evidence-informed practice and improvement (Bernhard et al., 2020; Coe et al., 2014; Dimmock, 2016; Graves & Moore, 2018; Zammit et al., 2007), and in its own national context of reform and improvement,

*...it is perfectly possible that collaboration within, between and across schools, in the form of professional learning communities, or indeed any other collaborative configuration, may still prove to be a powerful strategy for building capacity and enhancing professional capital in Wales.*

(Harris & Jones, 2017a, p.31)

A range of collaborative professional collaboration models are explored in the evidence base. These include Joint Practice Development (JPD) (Bragg et al., 2004), Lesson Study (Cajkler et al., 2014; Dudley, 2018), coaching and mentoring (Lofthouse, 2019; Netolicky, 2020), and Communities of Practice, and enquiry or action research models (Donohoo, 2017; Donohoo et al., 2018; Halbert & Kaiser, 2016; Sharratt, 2019; Wenger, 1999).

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The culture of learning in the Welsh SLO model does not specify a specific professional learning model. It is more concerned with setting up systems and processes informed by the key features and characteristics of *collaborative* professional learning. These reflect, for example, those explicitly listed by Kruse et al. (1994),

1. *Reflective Dialogue*
2. *Deprivatization of Practice*
3. *Collective focus on Student Learning*
4. *Collaboration*
5. *Shared Norms and Values*

(Kruse et al., 1994, p.160-161)

These key features, when combined with facilitators who, “...*play a critical role in developing supportive, nurturing, and collaborative professional learning environments.*” (Gibbons et al., 2021, p.11), establish the “*Culture of Enquiry*” of Dimension 4 of the Welsh SLO model, encompassed by high levels of trust.

Trust underpins the ideal environment for individual teachers to first, be *given*, and second, *accept*, permission to innovate and take risks. They can then enact their reflective practice and draw upon their willingness to instigate change their practice in the pursuit of their own professional improvement, and their student’s learning experiences (Cajkler et al., 2014; A. Hargreaves & Fullan, 1992; Lofthouse, 2019; Netolicky, 2020; Priestley et al., 2015; Sharratt, 2019e).

The distributed nature of leadership in the Welsh SLO has a particular role to play in stimulating high levels of trust. This is explored in detail in the next section of this review, but it is noteworthy here in that it relates to the concept of teacher leadership (Berg & Zoellick, 2019; Frost & Harris, 2003; Gumus et al., 2018; Karacabey et al., 2020; Macbeath & Cheng, 2019; Printy & Liu, 2021). Furthermore, trust plays a specific role in the leadership of professional learning (Azorín et al., 2020; Harris & Jones, 2017a, 2019; Muijs et al., 2014; Vanblaere & Devos, 2018). Trust underpins collaborative professional learning cultures in

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schools, where trusting teachers to identify their own areas for development and learning gives them autonomy and meaning

*...teachers understand conversations about their own teaching as being more meaningful for knowledge development than conversations about topics which have been chosen by others and are based on other considerations. This concerns being able to set the agenda for the conversations which occur.*

(Kvam, 2021, p.4)

This extends the learning cultures of individual schools to the wider system, thereby establishing, “...more than technical ways of collaborating; it is about building school cultures and systems in which individuals and schools can work together for better outcomes.” (Netolicky, 2020, p.51).

Dimension 5 of the Welsh SLO model explicitly focuses on establishing effective knowledge exchange systems. This is a critical feature of effective professional learning and school and system improvement (Azorín & Fullan, 2022; Day & Grice, 2019; Munby & Fullan, 2016; Turner et al., 2018).

Knowledge exchange systems require high levels of trust for new insights and practices to spread from individual classrooms and for effective practice to extend across schools and the wider system,

*Culture and collaboration are clearly central to any efforts to break down silos between cultures of teaching. They can also provide ways to counter cultures of individualism in teaching that have been widely regarded as serious impediments to improvement efforts.*

(Hargreaves, 2019, p.4)

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Such high-trust knowledge exchange systems achieve three things.

First, they ensure that teachers can observe, reflect, and discuss practice together in safe environments (Brown et al., 2016b; Bryk & Schneider, 2003; Cranston, 2011; Pedersen, 2019; Tschannen-Moran & Gareis, 2015). With this, teachers also benefit from sharing experiences that can bring about changes in their practice (Cordingley et al., 2015b; Higgins et al., 2015; Robinson & Timperley, 2007; Spillane et al., 2018; Timperley et al., 2007).

The culmination of these factors results in teacher learning that is embedded as part of the learning culture of the school (Berg & Zoellick, 2019; Malin et al., 2018; Milner et al., 2020).

Second, these high levels of trust and specifically, the high levels of *relational* trust, are fundamental for knowledge exchange to stimulate individual teacher learning and organisational change in schools and systems,

*Trust is not just who you know but it's also the quality of relationship with who you know...trust is fundamental to learning. If I do not trust you, as a teacher or as a colleague, I'm not going to open up to you and say, you know what? I'm struggling with this in my work, can you help me understand it...trusting relationships are critical to learning.*

(Spillane, 2018b, 4.7m)

Third, high-trust knowledge systems allow teachers and leaders to share data and access evidence-informed practices and research from extensive knowledge bases (Coe, 2019; Coe & Kime, 2019; Cordingley, 2015; Hargreaves & O'Connor, 2018a; Robinson, 2011).

Importantly, the three benefits of high-trust knowledge exchange systems identified here are designed-into the Welsh SLO model in Dimension 5, “*establishing effective systems for knowledge exchange*”. (Welsh Government, 2017b).



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As integrated dimensions, the Welsh SLO model reflects the call to engage in, “*Collaborative Professionalism*” for the complex world in which schools are required to operate,

*Collaborative professionalism is a necessity rather than an option in the schools of today....No profession, nor the people served by it, can progress without the ability and willingness of professionals to share their knowledge and expertise and to figure out complex problems of practice together. Learning for all requires teachers who can and will work together in relationships of trust and solidarity, using methods that have impact. It is the job of leaders of all kinds to help them do that.*

(Hargreaves & O’Connor, 2018, p.16)

Certainly, trust-building efforts were explicitly designed into in the LCL Project. The 14 Parameter framework (Sharratt, 2018), the evidence-based resources and the website resources (Sharratt, 2019a) shared with LCL Project participants frequently referenced the importance of trust-building.

### DOMAIN & FOCUS 3: Professional Capital through the focus of social capital and **trust**

According to Hargreaves and Fullan, (2012), “*Professional Capital*” is, “a “confluence” of three...forms of capital – human, social and decisional” (Hargreaves & Fullan, 2012, p.3).

This identifies the inter-relationship between the development of teachers’ individual expertise (human capital) with opportunities for collaborative professional learning (social capital) to build ‘decisional capital’. Forms of capital are referred to throughout the wider literature, “*To build human capital effectively, we would have to think differently about schools as organizations...it also means investing in a strategy – professional development.*” (Smylie, 1997, p.37).

Campbell et al.’s (2016a) interpretation of the concept of professional capital resonates with this, “*The combinations of teachers’ individual and collective professional learning and teacher leadership are central to the concept of “professional capital”*” (Campbell et al., 2016,

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p.221). Developing individual teacher skill and expertise (human capital) is a feature of collaborative professional learning opportunities (Hargreaves & O’Connor, 2018; Harris, 2011; Hord, 1997; Hord & Tobia, 2011; Shavard, 2021; Voogt et al., 2015).

This needs to be combined with the acquisition of individual teacher knowledge (decisional capital) (Johnson, 2012; Rockoff et al., 2003; Wu, 2018) to meet the needs of a diverse learning needs group of students, where teachers can build on, “...*knowing your subject and knowing how to teach it, knowing children and understanding how they learn*” (Hargreaves & Fullan, 2012, p.89).

In the Welsh SLO model, the importance of developing human capital is reflected in Dimension 2, “*Creating and supporting continuous learning opportunities for all staff*”. This generates the social capital required in Dimension 3, “... *team learning and collaboration among all staff*” directed at, “*Establishing a culture of enquiry, innovation and exploration*” in Dimension 4 (*Appendix 1 - 1.1. The Welsh SLO Model*).

The underlying elements of the Welsh SLO model (Welsh Government, 2017b) develop these forms of capital in an integrated way. This integrated approach allows efforts to be directed towards what Hargreaves and Fullan (2012) describe as decisional capital,

*...the capital that professionals acquire and accumulate through structured and unstructured experience, practice, and reflection – capital that enables them to make wise judgements in circumstances where there is no fixed rule or piece of incontrovertible evidence to guide them.*

(Hargreaves & Fullan, 2012, p.94)

Decisional capital is concerned with, “*valuing and including the teaching professions’ judgment on policies relating to teachers.*” (Campbell et al., 2016, p.225) and for Tong and Razniak (2017), it is, “*the wisdom and expertise of leaders in guiding the staff to make sound judgments about learners.*” (Tong et al., 2017, p.37).

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Campbell et al., (2016) state that investment and deliberate attention needs to be paid to recognising the power of decisional capital to benefit learning experiences,

*Most importantly, we suggest that decisional capital can be the least developed aspect of policy approaches to teacher quality; yet our evidence is clear that enabling and valuing teachers’ professional judgment and influence is powerful for individual and collective professional learning with benefits for students’ learning.*

(Campbell et al., 2016, p.233)

This is achieved when staff work together in collaborative (networked) settings. Decisional capital, therefore, occurs where social capital is not only present but deliberately attended to. This provides the ideal conditions and creates opportunities for safe collaborative professional learning.

Whilst all three forms of capital combine to make up Hargreaves and Fullan’s (2012) concept of Professional Capital, social capital is its critical enabler as it, “...*determines success in any innovation, in other words, is the degree of social capital in the culture of your own school. Learning is the work, and social capital is the fuel. If social capital is weak, everything else is destined for failure.*” (Hargreaves & Fullan, 2012, p.92).

Social capital is distinct from human capital in that it is, “*not a characteristic of the individual teacher but instead resides in the relationships among teachers.*” (Leana, 2011, p.32). It enables teachers to “*learn from each other within and across schools*” (Hargreaves & Fullan, 2012, p.89). In other words, social capital resides in the spaces where interaction occurs (Daly & Finnigan, 2013; Liou et al., 2017; Rincón-Gallardo & Fullan, 2016a).

These spaces are formed from the shared beliefs of practitioners and leaders so they can share their practice and safely reflect together. These spaces are bounded by explicit expectations and opportunities to engage in professional dialogue and active reflection,

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*Leaders must be able to see the process unfold “from the balcony and from the dance floor” thinking about where they are as leaders and where their followers are. This constant review process causes leaders to self-reflect often and demands that they differentiate their leadership support through modelled, shared, guided and interdependent stages.*

(Sharratt, 2016, p.36)

Finally, in these spaces, collective reflection, exploration and risk taking are the norms of professional behaviour (Daly et al., 2016; Spillane, 2018a). Therefore, these spaces are cultural - they generate social capital, and allow three distinct forms of trust to intersect,

- (1) Relational trust *between* practitioners and leaders (Bryk & Schneider, 2003)
- (2) Trustworthiness *of the processes* that facilitate the interactions and collaborative professional learning opportunities (Castelfranchi et al., 2006; Falcone & Castelfranchi, 2011)
- (3) Trust and fidelity *in* the pedagogical principles, evidence and practices shared (Brown et al., 2016a)

Social capital is critical for any school improvement effort in three ways.

First, it establishes a gateway to increase professional expertise and build capacity. This sustains organisational learning within a culture of high trust and commitment to achieving a shared vision, *“The key variable that determines success in any innovation, in other words, is the degree of social capital in the culture of your own school. Learning is the work, and social capital is the fuel.”* (Hargreaves & O’Connor, 2018b, p.89).

Second, social capital is both an enabler and a beneficiary of effective collaborative professional learning. It increases practitioners’ capability (human capital) to prompt changes in both thinking and practice (Lee & Louis, 2019; Sinnema et al., 2021). This subsequently enhances the learning experiences of all students, *“...the social capital of*

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*teacher collaboration adds value to individual human capital in terms of impact on student achievement.” (Hargreaves, 2019, p.1-2).*

Third, social capital has a crucial role to play in ensuring there is a focus on equity in the design and delivery of wider system reform efforts. By enabling effective practice and more reliable, trusted evidence around all parts of the system, all students benefit from improved teaching and leadership practices,

*In education, professional collaboration and building social capital among teachers and other educators improves student learning as these educators circulate their knowledge and take more risks. It improves teacher recruitment and retention as teachers in collaborative cultures realise there are others who can help and support them. It also improves the ability to initiate and implement change, as ideas spread and last beyond a few individual brainwaves.*

(Hargreaves & O’Connor, 2018b, p.2)

*It seems, then, that a major factor in determining success in promoting equity in education is our ability to strengthen social capital. The task of those involved in leadership roles is, therefore, to create the climate that will support such developments.*

(Ainscow, 2016, p.171)

Building social capital, therefore, requires school and system leaders to create both informal and formal opportunities for professional interactions (Grosemans et al., 2015; Pellegrino & Hilton, 2013; Watkins & Marsick, 2021) that facilitate knowledge exchange both within schools and between schools, “*To reap the benefits of social capital, we need a better understanding of how to invest in it. A first step is to design organizations and systems that facilitate social interactions among school and school-system staff.*” (Daly & Finnigan, 2010; Spillane, 2016, p.10).

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Forging professional relationships that connect staff within and between organisations develops social capital. It utilises and increases their relational expertise (Duhn et al., 2016; Edwards & Daniels, 2012) which in turn increases trust and strengthens the relational ties across and between teachers, school leaders and organisations (Spillane, 2016; van Maele et al., 2015). In summary, social capital forged from relational expertise and trust,

*...can be a source of and a channel for crucial resources such as trust, information, expertise, materials, security, obligation, incentives, and so on. In a given system or organization, social capital is much more than the aggregate of members' human capital.*

(Spillane, 2016, p.10)

The Welsh SLO model is deliberately designed to bring staff together for *collaborative* professional learning opportunities. This strengthens both the *quantity* and the *quality* of trust through their relational ties and builds social capital by establishing cultural norms for knowledge and practice sharing (Spillane, 2018a).

The integrated nature of the Welsh SLO model allows for knowledge sharing and professional and organisational collaboration to extend beyond the boundaries of individual schools. This enables social capital to drive and strengthen system-wide reform, “... *effective networks serve simultaneously as powerful vehicles to develop professional capital and as collective agents of change of educational systems.*” (Rincón-Gallardo and Fullan, 2016) and where, “...*building and supporting professional relationships and networks is a critical way to sustain the work of teaching and learning and ultimately of change.*” (Daly, 2015, p.1).

Leaders have the capacity and opportunity to build social capital in and between organisations. They do this by making strategic decisions about the distribution and deployment of resources, deciding where to locate and how to timetable teachers. This provides systemic opportunities for teachers to engage in practice-focused conversations,

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*...social capital theory would suggest that if provided systematic opportunities to engage with their peers outside their classroom, the human capital of individuals—in this case, their instructional effectiveness—could be shared and augmented. Given this line of argument, the more robust the teachers’ instructional repertoire and the more opportunities they have to exchange and integrate promising ideas and techniques into their own teaching, the more likely it will be that all students—not only those assigned to the more effective teachers—will experience the benefits of expert teaching. This analysis suggests that teachers are not inherently effective or ineffective but that their development may be stunted when they work alone, without the benefit of ongoing collegial influence.*

(Johnson, 2015, p.119)

By building social capital, leaders negate the inherent dangers of professional isolation in schools and obstacles to knowledge mobilisation highlighted by Lortie (1975) and Rosenholtz (1989) decades previously. The professional capital literature, and its three component parts of human, decisional and social capital underpin the collaborative learning of the Welsh SLO model. Of the three, social capital is the *enabling* factor. It is essential for the effective integration of human and decisional capital that leads to professional capital.

*Towards this end, professional collaboration offers a potential way forward as, time and time again, research evidence shows that collective professional learning generates the shared leadership and the social capital needed for positive and lasting organisational change... This necessitates establishing a culture of trust and respect where professionals can make their own collectively informed decisions about improving pedagogy.*

(Jones & Harris, 2014, p.243)

Social capital is explicitly attended to in the Welsh SLO model. It strengthens and sustains relational trust through collaborative professional learning (Dimension 3), developing a culture of collective enquiry (Dimension 4) and establishing systems for knowledge exchange (Dimension 5).

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Social capital is therefore critical for the building of system-wide conditions characterised by high levels of trust. This aids the realisation of the integrated Welsh SLO model in organisational and/or system-wide implementation approaches.

#### DOMAIN & FOCUS 4: SLO **Leadership** through the focus area of distributed leadership

The wider field of school leadership reflects an extensive range of small, medium, and large-scale studies and reviews. These identify a similarly extensive range of approaches, preparation strategies, models and perspectives relating to leadership practices. For example,

1. **Leadership approaches** – definitions, descriptions and characteristics of leadership practices (Fullan, 2003; Hargreaves & Fink, 2006; Harris, 2020; Harris et al., 2019; Leithwood et al., 2019; Leithwood & Jantzi, 2006; Robinson, 2010; Mac Ruairc, 2010; Shaked & Schechter, 2020; Timmins, 2015).
2. **Leadership preparation** – strategies, programmes and imperatives for leadership practice development (Gibson, 2018.; Harris et al., 2014; Johnson, 2002; Mac Ruairc, 2012; Mitchell & Sackney, 2016; Mumford et al., 2000; Prewitt, 2003; Shaked & Schechter, 2018).
3. **Leadership models** – interpretations, definitions, and conceptualisations of leadership practices (Gumus et al., 2018; Harris & DeFlaminis, 2016; Harris & Jones, 2021; Harris & Spillane, 2008; Joseph & Winston, 2005; Leithwood et al., 2008, 2019; Poorkavoos, 2016; Al-Fadala et al., 2019; Woods, 2016).
4. **Leadership perspectives** – analysis, reflections and explorations of leadership practices (Brennan & Mac Ruairc, 2019; Ertürk & Sezgin Nartgün, 2019; Harris & Jones, 2016; Macbeath & Cheng, 2019; Printy & Liu, 2021; Spillane, 2018a; Wiliam, 2016; Stoll 2020; Netolicky 2016).



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The influence and role of sharing leadership practices to lead collaborative school improvement and learning alongside teachers to achieve organisational change is well documented,

*Successful practice changes beliefs only when the vision articulated by leaders aligns with the shared beliefs and successful practices. Leaders mobilize self and others by articulating that vision and doing the work together – learning alongside others how to do the work in all classrooms.*

(Sharratt, 2016, p.36)

Hallinger (2011) summarises 40 years of leadership models from the school improvement and reform literature. This traces the emergence of school leadership models in response to the dominance of *instructional* leadership. Hallinger (2011) identifies three models of leadership, from which, alongside *transformational* leadership and *shared* leadership approaches, the *distributed* leadership perspective emerges.

In more recent leadership literature, Gumus et al. (2018), in a systematic review of studies on leadership models from 1980-2014, identify the prominence of distributed leadership, *“...the number of studies about distributed leadership has been enormous during the last decade, while there were only a few related studies in educational settings until 2000.”* (Gumus et al., 2018, p.17).

The multi-faceted and complex nature of leadership gives rise to four different leadership practices identified by Leithwood et al. (2008),

1. Set directions
2. Build relationships and develop people
3. Develop the organisation to support desired practices
4. Improve the instructional program

(Leithwood et al., 2008)

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Revisiting this extensive study, Leithwood et al. (2019) state that, “*distributed leadership is the most studied model in educational research*” (Leithwood et al., 2019, p.11). This is reflected in the centrality of distributed leadership in two of the seven claims, “*Claim 5: School leadership has a greater influence on schools and students when it is widely distributed*” and, “*Claim 6: Some patterns of distribution are more effective than others.*”(Leithwood et al., 2019, p.8-9).

Distributed leadership is also the most prominent leadership approach identified in middle leadership studies, alongside *teacher* leadership and *instructional* leadership (Harris et al., 2019). Distributed leadership is critical in establishing the ideal system conditions for teacher collaboration and practice-sharing to happen,

*Educational infrastructure is critical to the coordination challenge of cultivating and channelling relationships and accessing and activating resources with an eye toward producing and maintaining quality instruction for all students. This is no small feat and depends on the leadership of principals as well as other school staff.*

(Spillane, Paquin Morel & Al-Fadala, 2019, p.31)

Distributed leadership perspectives are also critiqued and explored in the specific leadership preparation and development literature (Hesbol, 2019; Louis & Murphy, 2018; Male, 2017a, 2017b; Mowat & McMahon, 2019; Mac Ruairc, 2012).

The distribution of leadership is viewed as critical to building trust as part of school improvement efforts (Diamond & Spillane, 2016; Díaz-Gibson et al., 2020; Spillane, Paquin Morel & Al-Fadala, 2019; Supovitz et al., 2019; van Waes et al., 2016).

Spillane et al. (2019) identify distributed leadership as central to two of four integral elements to establish the ideal conditions for teacher collaboration and development,

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*3. Supporting the use of resources in practice by developing leaders’ and teachers’ professional knowledge and capabilities, and providing clearly defined roles and expectations;*

*4. Distributing instructional leadership among leadership roles and teams responsible for performing, coordinating, and managing all of the preceding.*

(Spillane et al., 2019, p.32)

The leadership practices in the SLO concept are *distributed* in recognising that knowledge and expertise is sought from within the organisation (Welsh SLO model - Dimension 5) and beyond the wider system (Welsh SLO model - Dimension 6).

For the SLO concept located in an uncertain world, distributed leadership is a fundamental part of a *combined* approach of leadership practices (Greany, 2018). Leadership practices need to be unequivocally learning-centred (Robinson, 2011) and be characterised by instructional, transformational, systems thinking practices that support the leadership *of* and *in* networks and partnerships,

*Reliance on interconnectivity is achieved by rerouting all communications through tutors acknowledging their critical role in the learning process...All information is filtered through form tutors who act as a learning and communications conduit, one that connects staff, students, and parents to the learning process. These schools appear to be transitioning to a fully distributed leadership system geared to more democratic learning despite the (performative) odds; i.e. the prototype form of a learning organisation.*

(Barnard, 2020, p.1259)

The similarities between the dimensions of different forms of leadership and the specific leadership practices evident in organisational learning in schools are also highlighted in the literature,

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*There may be fewer differences than appear on the surface between current specifications of instructional and transformational leadership. An explicit comparison of the specific practices associated with each, and the identification of those practices from both models...could lead to a new synthesis of school leadership.*

(Leithwood et al., 1998, p.273)

Distributed leadership has long-since had a role in school and systems redesign efforts,

*... school redesign is unlikely unless patterns of leadership practice are dramatically altered and flattened. It highlights that multi-agency, multi-school and multi-phase working is simply not possible without the reconfiguration of leadership as practice rather than role.*

(Harris & Spillane, 2008, p.32)

In many ways, the design of the Welsh SLO model, when viewed in its entirety, articulates a distributed leadership perspective. Each of its 7 Dimensions reflect the positive role that every member of the SLO contributes to leadership practices. This resonates with the description of distributed leadership in that distributed leadership, “...acknowledges the work of all individuals who contribute to leadership practice, whether or not they are formally designated or defined as leaders.” (Harris & Spillane, 2008, p.31).

The Welsh SLO model therefore offers a response to the call for leadership practices that are more suited to the complex world we all now face, and distributed leadership practices have a role to play within this,

*A new leadership order has emerged which has no leadership standards, no preparation or development programmes, no inspection framework, no KPIs, no benchmarks. There are no precedents, no ring-binders, no blueprints to help school leaders through the current maelstrom that is COVID-19. In such disruptive times, school leaders cannot emulate the leadership practices they witnessed or enjoyed in a period of stability, continuity, and relative calm. Leading in disruptive times means*

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*being able to navigate a different course, to create new pathways through the disruption.*

(Harris & Jones, 2020a, p.246)

Crucial to understanding the distributed leadership perspective entails viewing leadership not as a *role*, but as a repertoire of *practices*,

*The distributed perspective expands our conception of leadership beyond focusing solely on people formally titled as leaders towards the many roles that people play in the array of social situations which make up the school community.*

(Supovitz et al., 2019, p.9)

These distributed leadership practices increase teacher empowerment (Azorín et al., 2020; Harris, 2007; Heffernan et al., 2019; Netolicky, 2019; Mac Ruairc, 2010) and challenge traditional, hierarchical notions of positional leadership in organisations,

*The nature of distributed leadership as a theory criticizes the hierarchical design of leadership and suggests the involvement of all personnel in the decision-making mechanism and collaboration among the entire staff as ways to effectively coordinate work and solutions to organizational problems.*

(Gumus et al., 2018, p.6-7)

There is still, however, a role within distributed leadership practice, for positional leaders to facilitate the co-construction and then the monitoring of the implementation and actualisation of a shared vision across a school (Andersson & Liljenberg, 2020; Harris & Jones, 2018a, 2018b; Kools & Stoll, 2016b; Liljenberg, 2015; Mulford & Silins, 2010).

Further to this, it is distributed leadership practices that are explicitly referred to in the 7 Dimensions of the Welsh SLO model. This echoes Spillane (2005), “...*from a distributed perspective, leadership is a system of practice comprised of a collection of interacting components: leaders, followers, and situation. These interacting components must be*

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*understood together because the system is more than the sum of the component parts or practices.”(Spillane, 2005, p.150).*

The concept of leadership as *practices* was evident in the evidence-based resources, articles and supporting texts of the training materials in the LCL Project (Sharratt, 2019e, 2019d, 2019b, 2019c). These endorsed the concept of teacher leadership throughout the LCL Project, supported by the conceptualisation of leadership in the core text in the role of “*knowledgeable other*” and the practice of “*instructional leadership*”. Positional leadership had a clear role, where the school principal or school leader was referred to as the “*lead learner*” (Sharratt, 2019e).

The explicit leadership practices explicitly referred to in Dimension 7 of the Welsh SLO model are those of distributed leadership (*Appendix 1 - 1.1. The Welsh SLO Model*).

The responsibilities for the direction and the learning of the school in the Welsh SLO model exist alongside the development of others. This is distributed across the wider community of staff and does not reside in the sole domain of a single positional leader. This is especially true for when times and/ or contexts are particularly challenging (Harris & Jones, 2020a; OECD, 2020a, 2020b; Sharratt, 2022).

Both the integrated (Kools & Stoll, 2016b) SLO concept and the systems thinking LO concept (Senge, 1990), are reflected in the leadership practices of the Welsh SLO model. This also reflects the “*interacting components*” (Spillane, 2005, p.150) of distributed leadership, and the distinctiveness of distributed leadership practices and positional leadership roles, “*The distributed perspective expands our conception of leadership beyond focusing solely on people formally titled as leaders towards the many roles that people play in the array of social situations which make up the school community.*” (Supovitz et al., 2019, p.9).

Dimension 7 of the Welsh SLO model explicitly describes the positional leadership role of the ‘School leader’ as responsible for, “*Modelling and growing learning leadership*”. The leadership practices modelled take the form of, “*learning leadership*” that “*distribute[s]*

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*leadership” to “...help grow other leaders, including learners” (Appendix 1 - 1.1. The Welsh SLO Model), “The accumulation of school leaders is not the same as distributing leadership. It is not an issue of numbers but rather one of leadership quality.” (Harris, 2011a, p.16).*

The language of Dimension 7 is therefore noteworthy in requiring the school leader to “*grow leadership*” rather than grow individual leaders, further reinforcing the distributed leadership view, “*If the school as a learning organisation is to be more than just the latest label, then leaders at all levels in schools will need this to be their shared ambition, their core purpose, and their collective focus for school improvement.*” (Harris & Jones, 2018b, p.353).

Furthermore, the relational dimension of distributed leadership in Dimension 7 is directed towards developing, “*... the culture, structures and conditions to facilitate professional dialogue, collaboration and knowledge exchange*” (Welsh SLO model - Dimension 7). This requires leaders to design frequent formal and informal professional interactions, reflecting another feature of the distributed perspective, “*...viewed from a distributed perspective, leadership practice takes form or shape in the interactions among people...Individuals act, but they act in relation to others and these everyday interactions are the essence of practice.*” (OECD, 2013, p.65).

These interactions between staff generate high levels of relational trust (Ehren & Baxter, 2020; Hallam & Hausman, 2009; Kruse et al., 1994) and encourage the growth of trustworthy leadership practices, that take dedicated time to nurture (Cranston, 2011; Falcone & Castelfranchi, 2011; Tschannen-Moran & Gareis, 2015).

The “*influence*” of distributed leadership practices is seen in staff interactions,

*Influence rarely happens through a single action – a leader’s decree or command. Rather, influence is exercised in the back and forth of interactions amongst people as they change their minds, develop new understandings, or come to see something in a new light.*

(Supovitz et al., 2019, p.19)

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The influence of the distributed leadership practices in the Welsh SLO model reflect leadership practices in the general SLO concept that, “...models and keeps individual, group and collective learning at the heart of the endeavour to realise its vision...staff are not just empowered, leadership is now better understood as distributed” (Stoll & Kools, 2017a, p.10).

The distributed leadership practices in the Welsh SLO model extend influence beyond the boundaries of an individual school through its interactions with its networked educational landscape, (Welsh SLO - Dimension 6) reflecting, “Distributed leadership encompasses leadership exercised by multiple leaders who work collaboratively across organisational levels and boundaries” (Azorín et al., 2020, p.7).

This system-wide school-to-school collaboration reflects Spillane et al.’s (2001) notion of distributed leadership practices, “...stretched over the school’s social and situational contexts...[over] actors and artifacts.” (Spillane et al., 2001, p.23).

This resonates with the “distributed intelligence” that emerges from distributing leadership practices across organisational boundaries, “Distributed intelligence can also be seen as a resource distributed across people, as if stretched across systems, which is accessed by participants in the system.” (Edwards, 2005, p.173).

The leadership practices of the Welsh SLO school leader ensure that people and systems combine, echoing the dual learning systems (organisation and people) in the general LO concept (Örtenblad, 2002; Yang et al., 2004). When they combine in this way, the opportunity for interaction generates individual, team, and organisational learning at all levels, “In our distributed view, leadership practice is constituted in the interaction of leaders and their social and material situations.” (Spillane et al., 2001, p.27).

The distributed leadership practices in the Welsh SLO model adopts a collective problem-solving approach within and across the wider system, “System transformation will not be achieved by leaders or schools acting alone. Much will depend upon the formation of new



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*networks, partnerships, alliances or federations to share leadership knowledge, collectively address problems and share expertise.” (Harris, 2011a, p.16).*

Trust is both integral to and a beneficiary of, distributed leadership practices,

*... distributed leadership in schools positively effects trust among colleagues and in principals. This urges the policy makers of education system to take action to create and cultivate distributed leadership behaviors in schools which is supposed to support collaborative school culture and school development.*

(Beycioglu et al., 2012, p.3318)

Trust is critical for leaders to effectively distribute leaderships across the complexities of formal and informal interactions in schools and across the wider system, “*...it requires a high degree of reciprocal trust to negotiate successfully the fault lines of formal and informal leadership practice.*” (Harris, 2011a, p.16).

Similarly, trust benefits from leaders exercising their distributed leadership practices to,

*...play a pivotal role in creating a learning organization, by allowing for open discussions about problems, successful and less successful practices, and the sharing of knowledge. They need to create the settings in which trust can develop over time so that colleagues and external stakeholders are more likely to engage in mutual and deep learning.*

(Kools & George, 2020, p.2)

The trust that results from distributed leadership increases the capacity of the Welsh SLO model to grow, “*learning leadership*” (Welsh SLO model - Dimension 7).

Leadership of teaching and learning across the wider system results from distributing leadership in a trusting culture characterised by high levels of collective teacher efficacy

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(Donohoo, 2017) and individual teacher agency (Biesta et al., 2015; Priestley et al., 2015; Sharratt & Fullan, 2006).

The relationship between high levels of trust and distributed leadership practices that extend beyond organisational boundaries are a distinctive feature of the Welsh SLO model. Distributed leadership practices promote trusting interactions across the wider community, “...trust underpins the kind of relationships needed internally and externally for SLOs to thrive.” (Kools & Stoll, 2016b, p.32).

Ultimately, distributed leadership practices share ownership and accountability for improvement and learning across the organisation (Harris & Jones, 2016). Distributed leadership is a distinctive feature of the leadership practices endorsed by the Welsh SLO model. This is demonstrated in three ways:

1. The distributed leadership perspective is *implicit* in how the learning culture of the Welsh SLO model is established (Dimensions 1-6) and *explicit* in how it is sustained (Welsh SLO model - Dimension 7).
2. Leadership is conceptualised as, ‘practices’ rather than positional role in the Welsh SLO model, reflecting a distributed perspective.
3. The interdependency between trust and distributed leadership practices is integral to the integrated nature of the Welsh SLO model.

### The conceptual framework

This chapter has explored the substantial body of knowledge and the related, international literature that influenced the Welsh SLO model. This exploration identified five key themes common to the LO and SLO concept, reflected in the Welsh SLO model.

The five themes of **change**, **context**, **culture**, **leadership**, and **trust** were evident across the knowledge base. Three of these themes, **change**, **culture**, and **context**, were particularly

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evident in the general LO concept. Distinctive to the SLO concept, however, two of the five themes, **trust** and **leadership** emerged strongly from the SLO-specific literatures.

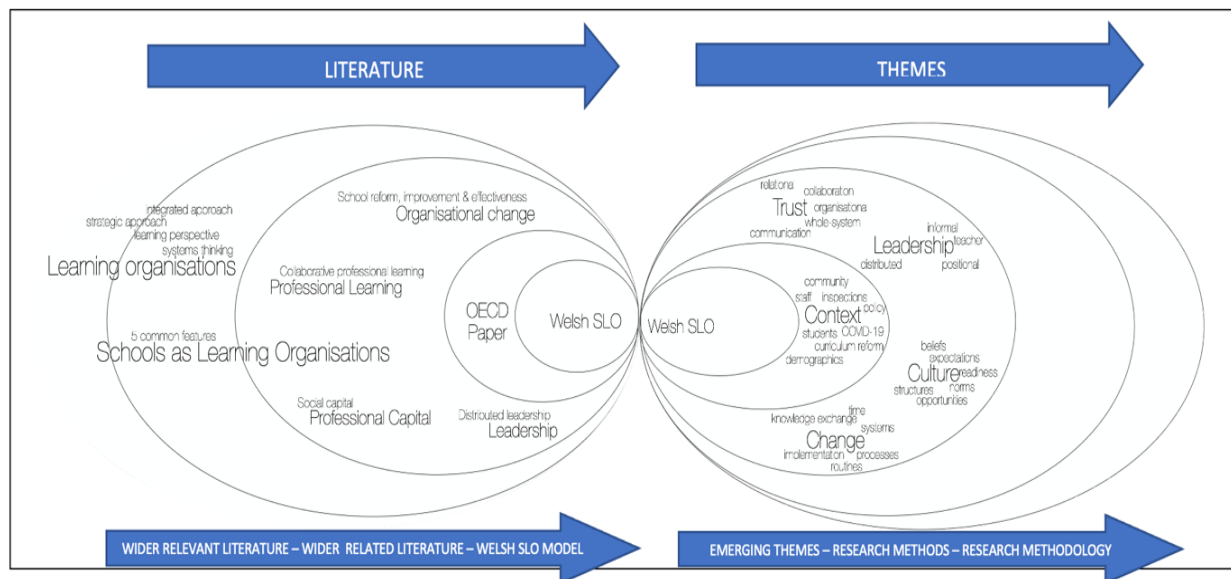
These five themes generated the conceptual framework visualised in *Figure 7*. This graphic visualises this conceptual framework and shows how the exploration of the literature in this chapter, and the examination of the policy context in Chapter 1, generated the conceptual framework.

The conceptual framework illustrates how the exploration of the knowledge base of Chapters 1 and Chapter 2, when combined, generate the conceptual and contextual foundations for this thesis. This conceptual framework was integral to this research.

The conceptual framework is located at the end of this chapter to demonstrate its function and importance as a bridge between the knowledge base of Chapters 1 and 2 and the rationale for the selection of the research methods and research methodology presented in the next chapter.

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Figure 7: Generating the conceptual framework – the combination of examined knowledge bases (left-hand side) & the emergent themes identified from the literature (right-hand side).



## Chapter summary

This chapter opened by tracing the ambiguous nature of the LO concept from its conceptualisation by Senge’s (1990) original definition.

Whilst attempts to secure an agreed definition of the LO concept and debates in the business and management literature continue to this day (Alerasoul et al., 2021; Hannachi, 2021; Lundvall & Nielsen, 2007; Örtenblad, 2018; Santa, 2015; Watkins & Marsick, 2021), this review demonstrates how the two typologies of Örtenblad (2002) and Yang et al. (2004) mark a significant moment of clarity, specifically for the emergence of the specific SLO concept.

The less extensive but specific SLO literature domain was also examined. As with the LO concept, this resulted in several different interpretations of the SLO concept. Once again, as with the iterative conceptualisation of the LO concept, this chapter identifies a significant conceptual milestone with the publication of the OECD paper (Kools & Stoll, 2016b) and its formulation of the SLO concept.

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The SLO concept emerged from (1) the LO conceptualisation process over time (2) the *specific* SLO literature and (3) the wider school improvement and professional learning literature. The synthesis of (1) and (2) with the extensive body of professional learning and school improvement literature (3), added depth to the SLO as a concept and demonstrated how it is underpinned by substantial bodies of scholarly work and empirical studies.

All these knowledge bases, combined with the 6 Principles identified from the policy context examined in Chapter 1, directly contributed to the development of the Welsh SLO model.

The design of the research project in this thesis directly built on this empirical knowledge base. The conceptual framework generated from the knowledge base was integral to this research. It informed all decisions made in the overall research design, its methodology, methods, analysis and the representations of data and findings.

The next chapter details the methodology and methods selected. Frequent references to the conceptual framework are made throughout the next chapter and the remaining chapters in this thesis, demonstrating its centrality to every aspect of the research.

## CHAPTER 3 – Research Methodology & Methods

### Introduction

This chapter outlines the research methodology and data collection methods used in this project. From chapter two, it draws upon the five themes of **change, context, culture, trust, and leadership** from the **conceptual framework** (*Figure 8*).

This chapter is in four parts.

**Part 1** presents the rationale for all methods selected for this research and details the specific methods deployed in the final research project. This presents the philosophical underpinning of the entire research design, and, therefore, reflects the rationale for *all* methods designed and piloted with participants. This includes references to methods that were that were designed and piloted in the original research design prior to the disruptions caused by COVID-19, but that were *not* ultimately deployed in the final research project and used to collect data. The rationale for this is that for *all* the selected methods for the data capture and analysis, and hence, the entire research design, the foundational methodology for the research remained unchanged.

**Part 2** contextualises the research project. This outlines its scope, structure, and details. This includes the *original* research plan and the contingency plans that were generated in response to the disruption caused by COVID-19. The adapted LCL Project delivery plan and, subsequently adapted research project design, including changes to the delivery modes and timelines for the training elements of the project also provide a context and justification for the selected methods and methodology.

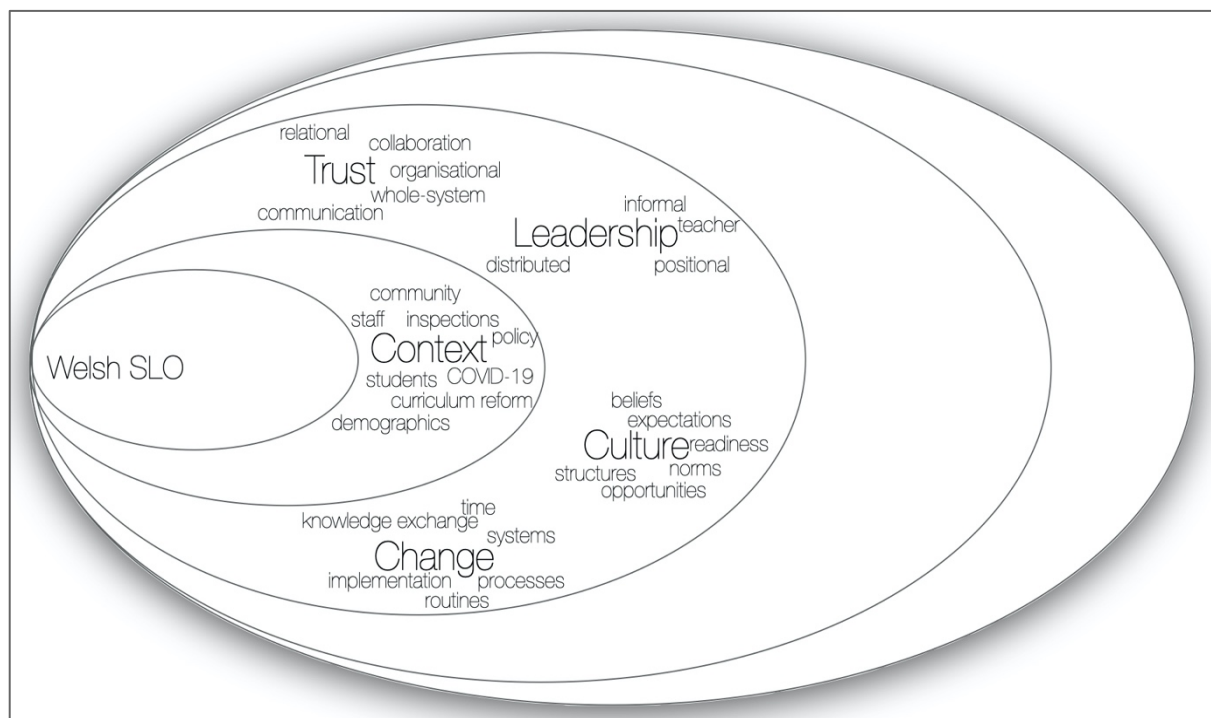
**Part 3** explains the design of the research project itself. This explains how issues encountered, including researcher positionality and the significant external factors that affected the project delivery, were addressed. This part of the chapter explains the selection processes for the tools used for the data capture and piloting processes for all instruments

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specifically designed for this research. This part of the chapter includes brief details of those instruments that were designed and piloted with LCL Project participants but, owing to the disruption of COVID-19, were not ultimately deployed at scale. They are included on the basis that they reflect the paradigm within which the research is located and that their piloting with sample groups of participants informed the overall and final research design.

**Part 4** concludes the chapter by presenting the lessons that were learnt from the design, development, and piloting processes of this research. It clarifies how learning was a continual process of reflection and adaptation throughout the project. This learning process continued to inform the final design of the research tools and the selection and application of analysis methods. This final part of the chapter then leads into the data analysis process in Chapter 4.

*Figure 8: The conceptual framework – five interrelated themes from the literature.*



The conceptual framework (*Figure 8*) was used to frame the research problem at the core of this project, located the research in foundational methodology and directly informed the selection and design of research methods,

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*...it is not the research question that is the very first step in a mixed process but rather the formulation of the research process – something which can only be stated if one has a good grasp of the problem one wishes to address through research.*

(Biesta, 2020, p.162)

Framing the research as a problem in this way located the research methodology in a critical realist paradigm (Burkitt, 2016; Denzin & Lincoln, 2018; Parr, 2015; Robson, 2011). Part 1 of this chapter details the methodological foundations for this research.

## Part 1 - Research Methodology

The first part of this chapter explains the design and underpinning methodology of the research project. This includes how issues were addressed during the iterative data capture phases. The issue of researcher positionality is attended to throughout the chapter, reflecting its prevalence as an explicit and on-going concern for the research. Furthermore, the external factors that affected the project delivery, particularly those in relation to the disruptions of COVID-19, are addressed in the first part of this chapter.

Once the research problem was framed within the policy context of the Welsh SLO model (Chapter 1), an ‘If-Then’ conditional statement was generated:

*If the Welsh SLO model is to be a catalyst for schools and system change, **then** how do policy makers and system leaders bridge the gap between policy and practice to realise the Welsh SLO model for it to become such a catalyst?*

The review of relevant and related literature (Chapter 2) underpinning the Welsh SLO model identified five common themes across the school improvement and professional learning knowledge domains. This in turn generated the conceptual framework (*Figure 8*), defining five themes for further exploration. For the purposes of this study, the definitions of these themes were:



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- **Change** – knowledge exchange and generation, understanding of change processes, implementation, systems, time, routines, reflective practices, policy implementation, flexibility, and responsiveness
- **Context** - policy, community, external factors (including COVID-19), internal factors, phase and setting, pupil demographic, socio-economic community, and learner profiles
- **Culture** – norms, expectations, beliefs, professional collaboration, organisational structures, opportunities, established systems, willingness, and readiness to adapt
- **Trust** – relational expertise, relational ties, relational agency, sharing knowledge and insights, professional learning, organisational, communication, structures, expectations, behaviours
- **Leadership** – informal, formal, positional, distributed, teacher leadership, school and system leadership and learning, partnerships, knowledge-seeking, modelling, and monitoring

Following the generation and clarification of the conceptual framework, the research-problem statement was further refined. This resulted in framing the research problem as a conditional ‘*If-Then-So-That*’ problem statement:

*If the Welsh SLO model is to be a catalyst for schools and system change, then how do policy makers and system leaders establish the necessary system conditions for the gap between policy and practice to be bridged so that the Welsh SLO can be realised as a catalyst for school and system change?*

Having identified and formulated the research problem in this way, the *original* research project adopted a pragmatic mixed methods approach (Creswell & Plano Clark, 2017; Froehlich et al., 2019; Mackenzie & Knipe, 2006; Robson, 2011). This also used an integrated data analysis approach (Bryman, 2016; Cohen et al., 2017; Morgan & Nica, 2020) to learn *about* and *understand* both the *individual* and *collective* experiences of the project participants.

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These mixed methods were originally selected and designed to gather and collate data to (1) learn *from* and to (2) *explain* the combined individual and collective experiences of project participants (Bhatti, 2017; Kuznar & Werner, 2001). At this point, a number of mixed method data capture tools were designed and piloted with a small sample of project participants. This tested the suitability of the instruments to collect data that would best respond to the research problem. It also informed the overall design of the project and confirmed its methodological positioning within a critical realist paradigm.

The intervention of external factors related to COVID-19, however, occurred during the piloting phase of the instruments. This led to the deployment of the qualitative methods from the original mixed methods research design earlier than had been originally planned.

At this point in the research, the deployment of the online survey (which included the predominant quantitative methods in the mixed methods research design) was paused. The intention was, at this early stage, to deploy the online survey at a later point in the timeline of the LCL Project, once the disruption of COVID-19 had passed, and project schools were operating normally again.

The disruptive influences of COVID-19, however, continued into the second year of the LCL Project. This required the on-going adjustment and re-design of instruments and methods during the data capture phases of this research. The flexibility afforded by the integrative data collection and data analysis selected for this research greatly aided the requirement to re-design, adjust and, in some cases, not use, methods and tools that had originally been designed to capture data.

Ultimately, the adjustments made to the research design resulted in the selection of predominantly qualitative methods, moving the design away from the originally intended pragmatic mixed methods approach. A summary of *all* methods designed and piloted for this research is included in Part 3 of this chapter, even though some of these did not generate data included in the final analysis. As feedback from the design and piloting of *all* methods informed the ultimate shape of the research project presented in this thesis. The

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influence of the piloting and design processes of *all* methods is thereby acknowledged by their inclusion in this chapter.

The next section of this chapter provides a detailed overview of the qualitative methods deployed during this research, from which data was captured and analysed.

Overview of the qualitative methods used in this research

The qualitative methods approach selected for this research included a convergent sequential data-collection design (Creswell & Plano Clark, 2017; Robson, 2011). This shaped the sequential research design and its structure. In this sequential research design the qualitative data were collected and analysed concurrently (Cohen et al., 2017).

*Some* quantitative methods (document analysis, text analysis and simple word frequency analysis) were used to explore the *collective* and *shared* experiences of the project population. These were all limited to the fixed phenomenon of (a) the training sessions and (b) project participants’ shared understandings of the Welsh SLO model. These methods allowed data to be collected and explored in depth, focused on the *collective* responses to the training sessions, of engaging with the Welsh SLO Model and an analysis of the design and content of the LCL Project (Charmaz, 2012; Denzin & Lincoln, 2018; Edwards, 2007; Mason, 2018).

The qualitative methods gathered data that focused on the breadth of *individual* interpretations, reflections and diverse experiences of the LCL Project participants (Coe, 2017; Cohen et al., 2017; Denzin & Lincoln, 2018; Froehlich et al., 2019). This provided data that could be contrasted, compared and explored in-depth. Here, commonalities and differences were gathered, analysed and presented alongside each other. Ultimately, this provided a rich account of the specific context and culture of the LCL Project and the wider system conditions and general context in which the project was situated. Taken together, the selection of this qualitative approach provided both unique and valuable insights in

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response to the research problem. These insights directly inform the findings of the research, presented in Chapter 5.

The research framework for this project organised and combined the data into categories of intentions, processes, and outcomes (the IPO research framework). The selection and design of this research framework was influenced by the original selection of a pragmatic mixed methods approach,

*...a methods, research design, and philosophy orientation...[that]...collects and analyzes both qualitative and quantitative data rigorously in response to research questions and hypotheses, integrates (or mixes or combines) the two forms of data and their results, organizes these procedures into specific research designs that provide the logic and procedures for conducting the study, and frames these procedures within theory and philosophy.*

(Creswell & Plano Clark, 2017, p.5)

This definition of a mixed methods approach held true for this research, despite the adjustments to the overall research methods and data capture plan. The IPO research framework was used consistently in the design, organisation and analysis of data and was employed to integrate the purely qualitative and the resultant quantified data.

Furthermore, the distinctive nature of the originally selected pragmatic mixed methods design was reflected in the *concurrent* collection of data from the fixed phenomena gathered from the document analysis and observational tools, and the more subjective, changeable data gained from the semi-structured interviews. With this, the iterative development of data collection tools (Biesta, 2020; Bryman, 2016; Coe et al., 2017; Creswell & Plano Clark, 2017; Robson, 2011) all took place within a mixed methods paradigm, as the intention was always to deploy the online survey and compare case study school experiences using quantitative methods. Ultimately, however, although these methods were designed, piloted, and data captured from the early design process, the circumstances of COVID-19 prevented their full deployment. The disruption of COVID-19 therefore

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prevented their full deployment across the study population to capture the quantitative data for which they had been designed and any subsequent data analysis.

The approach to *concurrent* data collection was implemented using an integrated research design where data was captured and analysed concurrently. This allowed the data to be systematically triangulated. This strengthened the validity and reliability of the research (Etchegaray & Fischer, 2011; Yardley, 2017) and responded to the on-going questions of positionality constantly attended to throughout this thesis.

The rationale for the original pragmatic mixed methods approach located the research in a critical realist paradigm, and this remained true for all methods ultimately deployed in this research (Biesta, 2011; Hammersley, 2012; Mackenzie & Knipe, 2006; Olson & Raffanti, 2006). The original starting point and the enduring assertion for this research was one of co-existence. In short, this assertion was that the knowledge within the epistemological and ontological positions that are traditionally associated with qualitative *and* quantitative methodologies are not diametrically opposed (Bryman, 2016; Coe et al., 2017; Creswell & Plano Clark, 2017; Robson, 2011).

This established the rationale for the selection for the original research approach. This had the benefit of facilitating a seamless and uninterrupted transition into its final form as a predominantly qualitative study. As the ambition of this research was to develop an accurate and detailed understanding of a diverse range of data sources, the use of predominantly qualitative methods became critical in ensuring the in-depth exploration of the LCL Project as a social phenomenon that is presented in this thesis (Biesta, 2020; Coe et al., 2017).

This underpinning paradigm therefore demonstrated the “*free-floating*” (Bryman, 2016) nature of assumptions that constituted the social reality of its critical realist paradigm. Furthermore, the rationale for this research closely resonated with Kuhn’s (1970) assertion that paradigms are not the same as rules, “*Rules, I suggest, derive from paradigms, but paradigms can guide research even in the absence of rules*” (Kuhn, 1970, p.42). This allowed

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for the flexibility and responsive of the research design, particularly when faced with the unforeseen, long-lasting and wide-ranging disruptions caused by COVID-19.

When selecting the methods for this research, the critical realist paradigm informed all decisions. This stance was invaluable when the events of COVID-19 disrupted the in-person delivery of the LCL Project, and subsequently, necessitated significant adjustments to the data collection plans. The philosophical assumptions *guided*, but did not, nor could not, provide *rules* for, the selection of the methods for this research. This also served to maintain the momentum of this research and the completion of the data collection, despite the disruptions encountered.

A detailed explanation of how the critical realist paradigm consistently informed the rationale for the methods selected for the ultimate design of this research follows.

#### Philosophical underpinnings of the qualitative research design

This research used qualitative methods to capture the *individual* experiences of the LCL Project participants. This reflected a social constructivist position (Robson, 2011), where understandings of the social world are gained by examining how the participants experience it (Bryman, 2016). Data from individual experiences included:

- Experiences and engagement with the Welsh SLO model as system leaders and practitioners.
- Insights into the SLO concept of academics and international SLO expert perspectives.
- The delivery of training during the LCL Project in-person training days.
- The co-design methods employed to support the remote LCL Project planning and rehearsal sessions.
- The co-delivery methods used to deliver the training sessions during the LCL Project live streamed webinars.
- Engagement with the accompanying LCL Project training resources.

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- The reflections and insights of system leaders on the application of new learning in their own teams.
- The reflections and insights of system leaders on the application of new learning in project schools.

The qualitative methods employed in the research design identified evidence of the conceptual framework themes of **change, context, culture, trust, and leadership**, and explored how these were experienced by project participants. These methods reflected an ontological position of critical realism, where knowledge provided, “*a way of approaching such open, uncontrolled situations*” (Robson, 2011).

These methods adopted a non-directional, observational stance to gather unbiased perspectives from individual LCL Project participants when the semi-structured interviews with system leaders were designed. In the original research design, this stance had also informed the design of the (a) semi-structured interviews with school leaders (b) focus group discussion prompts with teachers and the (c) open questions in the online survey for all study participants (Braun & Clarke, 2013; Cohen et al., 2017; Mason, 2018). Although each of these methods were designed and piloted with sample groups of project participants, they were not ultimately deployed.

Another benefit of the qualitative methods was in accommodating the contextual factors that influenced the interpretations and experiences of participants. This related to the multiple roles of system leaders in the LCL Project (Creswell & Plano Clark, 2017) and their roles *in*, and in relation *to*, the LCL Project to support the LCL school project teams alongside their roles in their own teams.

As **context** and **culture** emerged as two system conditions from the literature, earning their position as two of the five main themes in the conceptual framework, the selection of qualitative methods reflected an assumed inherent value to gathering this specific data.

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Further to this, these methods captured the nuances and complexities of participants’ individual **contexts**, the organisational **cultures** of the wider LCL Project population and the levels of **trust** in their project teams and with the LCL Project itself. These methods also captured data relating to the individual experiences of participants of both **change** processes and **leadership** practices during the project.

These qualitative methods acknowledged the underpinning epistemological stance that the knowledge gained from participants’ experiences of the project was (a) socially constructed and (b) would only ever be partially revealed (Braun & Clarke, 2013). A greater emphasis, therefore, was initially afforded to the qualitative rather than the (originally designed) quantitative elements of the research design. This remained true for its final formulation as a predominantly qualitative research approach.

The in-person and remote training sessions alongside the phenomenon of the Welsh SLO Model were assumed to be fixed and objective realities. This ensured that there were negligible interpretable variants, so lent themselves to quantification, measurement and direct comparison (Bryman, 2016; Coe, 2017; Creswell & Plano Clark, 2017; Robson, 2011).

The realist stance of this research sought to, *“develop statements which can help explain situations or describe causal relationships”*, where *“there is a reality separate from our descriptions of it”* that is mindful of, *“uncertainties and doubts”* of the observed reality (Robson, 2011, p.22-23).

Four assumptions underpinned the selection of the methods ultimately used in this research. This provided a robust rationale for the direct comparison, quantification and limited measurement of the collected data.

These assumptions included:



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Assumption 1: The phenomenon of the in-person training days was a shared and fixed experience.

This assumption was determined by each of the 2-day training sessions. These were designed in the same way and delivered by the same external facilitator. The training sessions for cohort 1 (days 2 and 3) included the same content, input, and key messages as the sessions for cohort 2 (days 4 and 5).

The adjusted delivery plan meant that the training sessions were restructured and delivered remotely. Collecting data from the remote rehearsal and live delivery sessions was predicated on the same assumption that the remote sessions were a fixed phenomenon.

Each 1-hour session was designed in the same way, delivered by the same external facilitator, with input from members of the core delivery team. These sessions were re-designed to form a series of x10 1-hour webinars. Each one of the live sessions was preceded by a rehearsal and planning session attended by the core delivery team and the external facilitator (*Appendix 3 - 3.1 Adjusted project plans*). In this way, the design and delivery of the remote training sessions was identical in all but one variable.

The one variable was the different individual and two collective cohorts attending the in-person training sessions. This variable was evident in the in-person sessions, where interactions and distinct group dynamics influenced the structure and flow of the training. This therefore prevented a comparable data set across the 2 sets of training sessions.

Mitigation of this variable was ensured by limiting the data collection to descriptions of the delivery, content, and pedagogy of the delivery of the remote and in-person training sessions. This meant that only the delivery and knowledge sharing strategies formed the data collection. Data concerning the interactions, responses, and contributions of attendees was not collected.

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When the data from both modes of training sessions were compared with the other, it was clear that all participants experienced the same structure, content, key messages, and pedagogical approaches. This thereby confirmed the philosophical rationale for the selection of this methodology.

Assumption 2: the resources, pre-reading tasks and practical tools shared ahead of and during the in-person training days were a fixed phenomenon.

The second assumption was that the resources and materials were common to all project participants. These were not adapted or refined between the in-person training sessions. They were shared and delivered to both cohorts at the same point in the training sessions in the same context.

Assumption 3: the nine remote training sessions were a fixed phenomenon. The live streamed webinars were delivered over a seven-month period.

The third assumption was that each of the live-streamed webinar sessions was preceded with a rehearsal and planning session with the core delivery team. This meant that although the content changed from session to session, this was the only difference. Every webinar session was designed around a common format and structure.

The remote training sessions included common and repeated key messages and employed a common pedagogical approach consistent in nine out of ten of live-streamed sessions.

The final webinar was the exception to this. This was referred to as the ‘culminating event’ and, uniquely, within the series of webinars, included live inputs from four project school teams, one from each region. This was in addition to the usual inputs from the core delivery team.

This final session therefore required a different format for the session, and it was lengthened from 60 minutes to 90 minutes. This accommodated the feedback and

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knowledge sharing from four project schools, input from the core delivery team and thanks from the extended LCL Project team.

Assumption 4: the Welsh SLO model was a universally shared phenomenon.

The fourth and final assumption pertinent to the selected methodological approach of this research determined that the Welsh SLO model was a fixed, unchanging objective artefact in the LCL Project. It was common to all LCL Project participants, regardless of their role or their relationship in or to the Welsh education system.

The impact of COVID-19 on the selected methods, their design and deployment

Taken together, the four assumptions, combined with the positionality of the researcher, informed the selection of two observational methods to collect data from the LCL Project. These were,

- (a) Immersive field notes for the in-person training sessions
- (b) Non-participant observation notes (NPON) for the remote sessions.

These methods collected data that related to the structure of the training sessions, identified common themes across all training sessions, and highlighted key messages in the training delivery modes (Shavard, 2021; Wiggins et al., 2019).

When the project moved online, all planning, rehearsal, and training sessions used remote modes. The NPON was therefore designed in response to the change of delivery mode of engagement in the training experienced by all participants and the researcher.

The unique context of this research and specifically, the impact of COVID-19 necessitated the use of NPON. It is worth noting at this point that the rationale for designing specific NPON to capture data from the remote rehearsal and live-streamed webinar sessions reflected unexpected benefits. These benefits were related to,

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1. **The influence of the exceptional contextual factors (COVID-19) shifted the focus for the data capture from ALL LCL Project participants at all system levels to system leaders in Tier 1 and 2 and beyond**– adjustments made to the LCL Project delivery plan required the focus for the data capture to shift away from an all-system focus to a system leader focus. The research explored how the system and, specifically, how the system leaders involved in the LCL Project supported schools to maintain the momentum of the LCL Project. With this sharper focus, the experiences and reflections of the system leaders became central to the findings of this research.
2. **The exceptional circumstances (of COVID-19) necessitated a greater number and more frequent meetings and planning discussions (undertaken remotely) for the core delivery team** - the frequency of these remote meetings generated real-time data that traced the momentum of the LCL Project, its changing context and afforded the opportunity to capture, in great detail, the implementation approaches of the LCL Project.

Real-time progress was recorded in the research journal, providing a detailed timeline of the project (*Appendix 3 – 3.2 x3 Excerpts from visual timeline of LCL Project* (anonymised) – illustrating (a) launch, (b) mid-point and (c) culmination of LCL Project & research plans). This documented knowledge exchange patterns, system leader and team interactions and provided comparative data to knowledge exchange patterns observed throughout the LCL Project.

3. **Insights into knowledge-flow between project schools and regional teams** – data was gathered that identified how the Regional Leads in the core delivery team worked remotely with the LCL Project schools during this disrupted time. Much of this was conducted via email and then built on in the rehearsal and planning sessions ahead of each webinar. This knowledge was shared cross-regionally, with the external facilitator and with the wider project delivery team in the remote planning sessions.

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4. **Immersive data collection methods** - attendance of the researcher at all the remote sessions. The remote NPON were used from a position of non-intrusive and external observational positionality.
  
5. **Additional functionality and capabilities of technology of the live streamed webinars** - the selected platform for the remote sessions included a live chat function. This function was used during the webinars by the core delivery team to cue up resources, ask questions and provide support and encouragement ahead of and following inputs during the webinars from each of the team. Only the core delivery team and the researcher could access and see the live chat.

The digital mode of delivery therefore provided an additional source of data and insights into the project conditions of **change, context, culture, trust, and leadership** over the course of the live sessions. This chat function had the benefit of concurrent observation, time-stamped, during the live sessions. It was, therefore, a distinctive feature of the remote mode of the project delivery plan and an unexpected benefit of this delivery mode, reinforcing the suitability of the NPON to capturing data.

The rationale for selecting the two observational methods, therefore, was to provide insights and offer meanings to the collective, shared experiences (Bryman, 2016; Chi, 1997; Denzin & Lincoln, 2018; Keeves, 1988) of system leaders in the LCL Project.

It is true to say, therefore, that when combined, these methods, their underpinning assumptions and attendance to the on-going issues of positionality of the researcher, captured rich and immersive data. This related to how participants experienced the training, how the training was designed, interpreted and delivered. This meant that this rich and immersive data could then be mapped against the five themes of the conceptual framework as it was collected, enabling the integrative data collection and data analysis to take place concurrently, building a reliable evidence base on which the main identify findings were drawn.

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Integrating methods with the conceptual framework

The centrality of the conceptual framework generated from the policy analysis, the contextual background and the review of the literature was maintained throughout this research. The themes of the conceptual framework (**change, context, culture, leadership and trust**) became integral to formulating the rationale in selecting the observational methods. This was evident in four distinct ways,

1. The two observational methods were designed to document the disruptions and events of the real-time external **contextual** factors. With this, these methods were integral to capturing the core delivery team’s experience of leading **change** processes within the *existing* policy and *emerging* external **contexts**.
2. The design of the two observational methods ensured that their integration was possible, despite their slight differences. This was achieved by focusing on the five themes of the conceptual framework to capture comparable data. This integration process provided insights into project **culture** and traced the extent to which **trust** was evident and influential in the planning, rehearsal, and delivery sessions.
3. All the selected methods were designed to capture a range of **leadership** practices modelled and employed during the LCL Project training and planning sessions.
4. Finally, all these methods were designed to capture data that related to specific **implementation** strategies employed in the LCL Project. This was a significant and valuable feature of the capability of the selected methods and significantly influential in the findings of this thesis, detailed in Chapter 5.

The rationale for this integrated approach to data collection methods, combined with the underpinning of the conceptual framework, also extended to the rationale for selecting document analysis as one of the methods in this research.

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Document analysis was used to collect data from the resources and materials that were made available to all project participants prior to and during the training sessions.

This identified the content, key messages and design of the training resources and accompanying materials. Simple word frequency and common phrase analysis was used to collate the data. This method was adapted from more sophisticated and detailed methods of content and text analysis (Bozkurt et al., 2015; Grimmer & Stewart, 2013; Gross, 2010; Koufogiannakis et al., 2004). The conceptual framework was then used to categorise the data deductively using simple word frequency and common phrase analysis methods. This analytical approach is detailed in Chapter 4.

By using these methods to capture data from the training materials and the Welsh SLO model, their fixed and objective reality was acknowledged (Cohen et al., 2017; Mackenzie & Knipe, 2006; Walker & Evers, 1988), in contrast to the more fluid and subjective nature of the semi-structured interviews detailed in the next part of this chapter. As a result, themes and patterns emerged by using these non-variable measures.

These methods also acknowledged the assumption that any changes in participants’ collective experiences and conceptual understandings of the Welsh SLO model did not negate the comparability of the data. This meant that it could still be correlated with their involvement in the LCL project (Bryman & Burgess, 2001; Coe, 2017).

Finally, the data from both the observational and document analysis methods was selected to enable the integration of data captured using the qualitative methods with the themes from the conceptual framework.

Of all methods used in this research, the semi-structured interviews remained the dominant qualitative method. This methods was particularly valuable in attending explicitly to issues relating to researcher-positionality throughout this research, (discussed in detail later in this chapter), resonating with Clift et al. (2018),

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*...a process of constant comparison of each interview in the dataset allowed me to navigate and negotiate erratic aspects of the interviews, and sort and organise the data into robust, layered, and meaningful thematic concepts, which were then used to theorise about the sample population.*

(Clift et al., 2018, p.43)

Ultimately, the selected methods generated data that located the research in its problem-centred pragmatic research approach (Biesta et al., 2019; Biesta, 2020; Mackenzie & Knipe, 2006), maintaining it within its critical realist paradigm,

*... the world has depth and that ‘the real’ cannot be reduced simply to experience, including the experience of the subject... the crux of critical realism is that social phenomena, be it actions, texts and institutions, exist regardless of interpretations of them; the social world is both socially constructed and real.*

(Parr, 2015, p.195)

The next section presents the rationale for the selection of this problem-centred pragmatic research approach, to demonstrate the extent to which it is located in its critical realist paradigm.

Philosophical underpinnings and rationale for a qualitative methods approach

The ambition of this research was to understand the specific and individual experiences of the project participants, “...the research participants are viewed as helping to construct the ‘reality’ with the researchers” (Robson, 2011, p.24).

The reality of the project participants reflected the world view that included assumptions about the world and the relationships we have to knowledge (Bryman, 2016; Denzin & Lincoln, 2018). These assumptions reflected the beliefs underpinning this research related to both the nature of *what* we know (ontology) and *how* we know it (epistemology).



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The assumptions of the world view underpinning this research located it in a critical realist paradigm (Bryman, 2016; Denzin & Lincoln, 2018; Parr, 2015; Withell & Haigh, 2018).

Bryman (2016) summarises Kuhn’s (1970) introduction of the term, ‘paradigm’ as, “...*a cluster of beliefs and dictates which for scientists in a particular discipline influence what should be studied, how research should be done, [and] how research should be interpreted*” (Bryman, 2016, p.637).

Whilst this asserts that paradigms are ‘incommensurable’, and that research can only ever be located in one paradigm at any one given time (Coe et al., 2017), by adopting a *technical* (Bryman, 2016) and *pragmatic* (Coe et al., 2017) approach, this research design reconciled any apparent paradigmatic incompatibility. The resulting paradigmatic stance, therefore, reflects a realist framework,

*Adoption of realist terminology and associated concepts (e.g. and in particular, generative mechanisms) encourages a productive way of thinking and understanding its findings...multi-strategy research, rather than introducing new and specific realist concerns, provides a context where they appear particularly apposite.*

(Robson, 2011, p.127)

The selection of a predominantly qualitative approach and methods was founded on the principles of the original selection of a pragmatic mixed methods approach for the design of this research. Although the quantitative methods were not deployed to gather data, the philosophical stance and epistemological and ontological foundations of this research remained the same in their original design and piloting with project participants.

In seeking to incorporate both qualitative and quantitative methods within the original research design, it remained securely located in a critical realist paradigm. This was appropriate from both ontological and epistemological positions.

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First, the epistemological stance of this project reflects a belief about knowledge whereby, *“...knowledge of how things are is a product of how we come to understand it...The process of knowledge production is still (often) empirical in that it is grounded in data, and understanding of some kind is sought.”* (Braun & Clarke, 2013, p.30).

Document analysis of the common training resources enabled a comparison of the participants’ experiences of the phenomena of the training inputs as data was collected and quantified to reflect the fixed reality of the training sessions. These data were compiled with the shared experiences of participants’ understandings of the fixed reality of the Welsh SLO model, captured through the semi-structured interviews and the key messages and themes identified from the observational methods.

Data was quantified to provide feedback and demonstrate comparable responses to the shared, fixed phenomena and concepts. This also allowed the fine differences between the individual experiences of participants in the LCL Project to be delineated (Bryman, 2016). Taken together, the location and appropriateness of the quantifiable elements of this research design validated the generalisable, objective data as part of a complete, fixed phenomenon.

All methods used to gather data from fixed phenomena that were used in the final (adjusted) research design gathered comparable data from the documents, materials, and training resources. Specifically, there were two observational data collection points used to gather data from (1) the in-person training sessions and (2) the remote planning and live streamed webinar sessions, both of which used methods that were designed to capture data from these training sessions as fixed phenomena. In this way, the data could be quantified, measured and compared.

The qualitative methods selected for this research foregrounded the individual experiences of the LCL Project Participants. This considered the realities of their individual roles, perspectives, and settings. In particular, the semi-structured interviews became a central method within the adjusted research design, specifically designed to gather deep insights

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and identify contextually sensitive themes, differences and commonalities across all collected data. This reflected an underpinning epistemological assumption whereby, *“...truth is no longer seen in terms of correspondence but in terms of consensus – the outcome of complex processes of human experience, interaction, communication, dialogue and reasoned argument.”* (Denzin & Lincoln, 2018).

The research design therefore privileged data that reflected perceptions and experiences that could *only* be gained by exploring the individual insights and experiences directly from individual LCL Project participants. This assumption was crucial to the selection and design of the methods employed in the final research design and to the richness of the findings presented in chapter 5 of this thesis.

The methods selected to gather individual insights were linked to the individual contexts of participants’ teams, settings, and organisations, reflecting the ‘Figured World’ of interpretive modernism described by Kamberelis, Dimitradis and Welker (2018) as, *“A real world apart from our knowledge”* is assumed, but one that is, *“seen as constructed by social and cultural formations...Therefore, knowledge becomes tentative, vulnerable to revision.”* (Kamberelis et al., 2018).

These methods were successful in valuing the insights, individual experiences and interpretations of research participants. As a consequence, this research design directly and pragmatically engaged with the problem identified and framed in the research questions, allowing it to help us, *“...connect our judgements and decisions to the question, ‘What is the problem?’”* (Biesta, 2020, p.23).

The centrality of the research problem was reflected in a three-step design-process for the research. These three steps were to,

- (1) *understand*
- (2) *explain*
- (3) *identify*

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The key elements and distinctive characteristics of influencing system conditions that affected the experiences of the LCL Project participants, and the progress and development of the LCL Project as a system-wide undertaking.

- (1) First, an *understanding* was needed of the system conditions required to realise the Welsh SLO model.
- (2) Second, an *explanation of* the nature and characteristics of these system conditions, and their relationship to each other.
- (3) Third, and finally, an *identification* of the processes and steps needed to establish these system conditions for the Welsh SLO model to be a catalyst for school and system change.

This research adopted a “*pragmatic attitude*” (Biesta, 2020, p.23) in its approach to using theory, its design and its selected methods. This approach ensured both the utility of the project findings *and* provided a wider justification for the project in the first place (Biesta, 2020).

By adopting problem-identification as the start point for this research, practical matters were brought together with the relevant theoretical underpinnings to consider the details and components of the research design. This approach also enabled the integration of individual *and* collective responses from the LCL Project participants.

This provided a coherent rationale for the research design that was strengthened by three factors. The research design was,

- 1) Responsive and relevant to the policy context in which it was located (Chapter 1)
- 2) Directly informed by the conceptual framework generated by the review of relevant and related literature (Chapter 2)
- 3) Addressed the scope and ambition of the research problem and questions (Chapter 3)

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The next part of this chapter details the quality checking process applied to the research design. This process confirmed that the selected methods were appropriate for all elements of the research design.

## Part 2 – The research design - an integrated approach

The embedded (Bryman, 2016) or integrated (Creswell & Plano Clark, 2017) nature of the design of this research optimised the value of its design, “...which arises when additional insight emerges beyond that gleaned from the separate quantitative and qualitative data.” (Creswell & Plano Clark, 2017, p.220). In the case of this research design, whilst the purely quantitative methods were not ultimately used, data was collected and concurrently analysed in a number of ways, which required the quantification of themes, concepts and commonalities identified from the qualitative data.

The benefit of fully integrating and embedding data collection with on-going analysis was assessed by employing an adaptation of a quality-checking approach (Bryman, 2016). This quality-checking was initially designed to assess the suitability of selecting and designing a mixed methods approach, and used in this way in the original research design but was employed throughout the research as adjustments were made to the project and new tool designed and piloted in response to these changes. The quality-checking asked the following questions of all methods intended for this research:

- (1) To sequence the methods so that one complemented the other and informed further research method-design as it developed over time (Bryman, 2016).
- (2) To provide additional insights from the methods used in the data collection to produce a comprehensive account of the project to respond to the research questions (Bryman, 2016).
- (3) To address the limitations of adopting any one method over another and enable one method to complement, enhance and refine the capacity of the other (Bryman, 2016; Creswell & Plano Clark, 2017; Denzin & Lincoln, 2018)

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- (4) To support the credibility, reliability and validity of the findings by triangulating the data and corroborate it through analysis (Creswell & Plano Clark, 2017; Denzin & Lincoln, 2018).
- (5) To collect and collate multiple perspectives (individual and collective) and include diverse accounts and perspectives to produce a ‘thick’ description of the data (Coe et al., 2017; Robson, 2011).
- (6) To extend the inclusion of *individual* and *collective* experiences and perceptions from the project population and integrate these as part of a large-scale, system-wide project (Creswell & Plano Clark, 2017).
- (7) To use the comparable data collected to test and explore the validity of themes and patterns identified in data collected through a systematic triangulation strategy (Creswell & Plano Clark, 2017).

Four further key considerations identified by Creswell and Plano-Clark (2017) were applied to this research design as a quality check for the appropriateness and suitability of the research methods selected. This quality-check considered the extent to which the integration of methods *with* the data captured was appropriate, and then identified the extent to which this integration had occurred, using the following four considerations as a guide:

- (1) the *intent* of the integration of the methods in the research design
- (2) the *integration* of data analysis procedures from the methods deployed
- (3) the *representation* of integrated results from the methods used
- (4) the *interpretation* of the integrated results from the methods in the final research design

(adapted from Creswell & Plano Clark, 2017)

The section that follows explains how integration between data capture and analysis took place in this research.

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First, this explains the *intent* of integration processes, as this formed the basis of the methodology of the research design.

Following from this, the next three considerations were applied. These related to the extent to which the *analysis procedures, representations of results and interpretations of integrated results* were integrated in this design.

The *intent* of adopting an integrated approach in the research design

The intention of adopting an integrated approach to the design of this project was to provide comparable data and interconnected themes. These themes sought to provide opportunities to explore,

- 1) The intentions, processes, and outcomes (IPO) of the training sessions or the project itself, integrating the design, content, structure and delivery of the training sessions with the content of the documents experienced by the entire research population.
- 2) The integrated concept, rationale, and purpose of the Welsh SLO model across the wider context of the system as it was experienced as a fixed and collective shared phenomenon in practice.
- 3) The integrated individual *and* collective experiences of project participants of change processes.

The integrated approach also strengthened the robust nature of the research design (Coe et al., 2017; Creswell & Plano Clark, 2017). One example of this was in the use of the methods used. These were:

- (1) documentary analysis
- (2) immersive field notes
- (3) non-participant observation notes (NPON)

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These three methods generated significant amounts of data that directly informed the question design used throughout the research, both in data collection and data analysis. Specifically, they informed the design of original methods – the focus group discussion prompts and the online survey and directly shaped the design of the semi-structured interview schedules. Together, this achieved the desired levels of integration within the research design (Niglas, 2015). Data gathered from all these methods allowed for three separate processes of integration and reliability checks.

First, the integration of data from one method to another was part of the tool-development and the analytical processes. Second, and separate from this, the data were triangulated. Third, all data was then mapped against the conceptual framework, as part of the integrated approach to concurrent data collection and analysis. The underpinning mixed methods methodological stance originally designed into the research plan therefore deepened the ‘explanatory power’ of the research findings, above and beyond triangulation approaches alone,

*“...within such an orientation, qualitative data and analysis are used...to strengthen the explanatory power of the research – and in precisely this regard this approach is different from triangulation.”*

(Coe et al., 2017)

The integration of methods with the analytical processes influenced the dynamic, iterative and responsive design of the research. This was particularly valuable when faced with the disruptive challenges encountered as a result of COVID-19.

Biesta’s research framework dimensions (2020) adapted from Coe et al. (2017) were applied to the research design to quality check the selection processes of the methods. This identified the elements of the research project most suited for combining methods (*Appendix 3 - 3.4 Application of Biesta's 7 dimensions of Mixed Methods approaches - quality check*). This process of quality checking ensured that not only did the research



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methods reflect the selected methodological approach, but also that the research was securely located in its critical realist paradigm.

Integrating data collection and cyclical data analysis

Building on Creswell and Plano Clark’s (2017) integration processes in mixed methods design, the next part of this chapter explains the extent of integration of data collected. The pragmatic nature of this research reflects the elements of the research problem,

*...it is not the research question that is the first step in the mixed methods process but rather the formulation of the research purpose – something which can only be stated if one has a good grasp of the problem one wishes to address through research.*

(Biesta, 2020, p.162)

The research problem underpinned the research questions. These questions were explored through the conceptual framework and its five common themes of **change, context, culture, trust, and leadership** generated from the review of the relevant and related literature (Chapter 2). The research questions investigated what system conditions were evident in the LCL Project, what distinctive characteristics these displayed and what establishing steps were needed in response to the research problem at the core of this thesis.

To respond to both the research problem and the research questions, the methods selected were able to capture and integrate the individual *and* collective experiences of the project participants, *“The intent of integration in a convergent design is to develop results and interpretations that expand understanding, are comprehensive, and are validated and confirmed.”* (Creswell & Plano Clark, 2017, p.221).

The pragmatic nature of the research design influenced the selection and the design of the methods as well as the data analysis processes. These were then integrated to varying degrees and at different phases of the data collection and analysis.

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As part of the integrated data collection and analytical approaches, a number of common concepts, patterns and themes were identified. The benefit of this approach was to allow the commonalities to be mapped against the themes in the conceptual framework and to align these the re-formulated research problem *as they emerged*, rather than waiting for a separate analytical phase.

All data collection and integration were conducted in accordance with ethical permissions to represent the authentic voice of participants. This respected and maintained the anonymity of participants’ voices within the critical realist paradigm of this project (Parr, 2015) (*Appendix 3 - 3.10 Sample anonymised participant information & consent form*). The ethical considerations undertaken in this research are detailed throughout this chapter.

A distinctive feature of this research was how the integration approach provided ample opportunities to representing the data visually. The advantage of this was to generate comparable and generalisable data in an accessible, comprehensive, and reliable format in direct response to the research problem and research questions.

#### Integrating results from the mixed methods

Once the data that was available was integrated, a flexible and open approach was adopted to interpret the data. This acknowledged the limitations of integrating data (Creswell & Plano Clark, 2017) in a convergent research design, both prior to and following the integration of the data, *“In a convergent design, interpretation involves not only identifying points of congruence and discrepancy but also working to understand how these points provide additional insight into the problem being studied.”* (Creswell & Plano Clark, 2017, p.235)

A semi-structured interview schedule across the participant data collection (Braun & Clarke, 2013; Bryman & Burgess, 1994; Silverman, 2006). Common themes were identified across

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the data using simple word frequency analysis (Lang et al., 2017) and a range of visualisation strategies (Nuttbohm et al., 2009; Carlyle, 2019; Horst and Hjorth, 2014; Mannay, 2010) to explore and represent the data.

Commonalities and variations across the project were identified through regular interrogation and revisiting the data at all phases of its collection and analysis. This added to the reliability and validity of the findings (Braun & Clarke, 2013; Cohen et al., 2017; Etchegaray & Fischer, 2011).

Two of the greatest impacts of COVID-19 on the research design specifically were:

1. The selection of data collection methods
2. Selection of the target group for data capture

In response, the adaptations made in response maintained the momentum and integrity of the research.

Although COVID-19 prevented some of the selected methods from being fully deployed, every method that was designed and piloted is referenced in this thesis. This reflects their role in the planning, design, and decision-making of this research as pragmatic mixed methods design. All selected methods, deployed and not fully deployed, met the selection criteria for this research. The criteria for selection were,

- a. Accorded to their suitability to the purposes of the project
- b. Located within the critical realist paradigm underpinning this research
- c. Designed and tailored to the specific research problem and research questions of this thesis
- d. Ability to be piloted with project participants
- e. Ability to be refined in response to piloting feedback
- f. Ability to be integrated with all methods used in the research design

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The methods selected to be integrated into the project and the alternative methods selected and designed following the impact of COVID-19 are presented in *Table 5*.

It must be noted, that as part of the integration and triangulation strategy adopted within this research design, the methods were part of a cyclical and iterative data capture process. This reflected the convergent and sequential design of the project (Biesta, 2020; Bryman, 2016; Coe et al., 2017) and the decision to undertake systematic integration of the methods during deployment alongside the employment of a phased and iterative analytical process (Niglas, 2015).

*Table 5: Summary of original methods selected, and adaptations made owing to COVID-19*

Methods	Original (pre-COVID)	Adaptations and amendments to methods	Data collected	Data analysed
<b>Field Notes</b>	<b>Immersive Field Notes</b> from F2F Training Sessions (1)		<b>N</b>	<b>N</b>
	<b>Immersive Field Notes</b> from F2F Training Sessions (2)		<b>Y</b>	<b>Y</b>
	<b>Field notes</b> from F2F Training Sessions (3)	<b>X9 non-participant observation notes (NPON)</b> - Webinar sessions designed and rehearsed with system leaders x10 webinars co-delivered as live streamed events to project cohort <b>X10 NPON</b> – remote rehearsal and planning sessions co-designed and rehearsed with external facilitator and system leaders	<b>Y</b>	<b>Y</b>
	<b>Field notes</b> from F2F Training Sessions (4)			
	<b>NPON</b> from the final culminating event ‘Learning fair’	<b>X1 NPON</b> - Webinar session designed and co-delivered by external facilitator, system leaders with input and materials shared by school leaders from x4 project schools	<b>Y</b>	<b>Y</b>
<b>Documentary Analysis</b>	<b>Documentary analysis</b> of training and pre-reading materials	<b>Y</b>	<b>Y</b>	
<b>Semi-Structured interviews</b>	<b>Semi-structured interviews:</b> with (x3) international experts (including project external facilitator) conducted via audio-only conference call, Skype audio-only and Teams video link	<b>Y</b>	<b>Y</b>	

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<b>(international SLO experts)</b>				
<b>Online survey</b>	<b>Pilot online survey</b> – undertaken by sample group of project participants (x5) at all levels of the system. Amendments completed, and survey redesigned for launch with whole cohort. Contingency plan designed to increase response-rate at third in-person training session in June 2020 – not possible owing to system-wide disruptions	<b>Y</b>	<b>N</b>	
	<b>Online survey</b> for whole cohort launched (end of February 2020) - response rate adversely affected by system-wide disruptions	<b>N</b>	<b>N</b>	
<b>Case studies</b>	<b>Case Study Schools</b> – (x11) identified, agreement to participate and preliminary contact was made with first group but unable to complete interviews owing to system-wide disruptions	<b>N</b>	<b>N</b>	
	<b>Pilot</b> semi-structured interviews completed with school leaders in case project school	<b>Completed:</b> pilot semi-structured interviews with school leaders (x4) combined as part of a two-part process of (1) focus group discussion	<b>Y</b>	<b>N</b>
	<b>Pilot focus group discussion</b> schedules with teachers in case study school	leading into (2) semi-structured interview (x2) senior leaders. Process and effectiveness of tools analysed, and amendments made	<b>Y</b>	<b>N</b>
<b>Semi-structured interviews (system leaders)</b>	<b>Semi-structured interviews</b> with system leaders – designed as in-person interviews, adapted to remote video calls in response to COVID	<b>Adapted design:</b> semi-structured interviews with system leaders (x11) – conducted remotely and adjusted owing to system disruptions	<b>Y</b>	<b>Y</b>

The original research design

The next part of this chapter provides an outline of the *original* research design and the tools intended to be deployed within this, designed and piloted with LCL Project participants but could not be deployed more widely and the data collected was not included in the final analysis.

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The purpose of this is to acknowledge the presence of the research methodology in the overall research design and the reality that for the majority of its duration, this research was intended as a pragmatic mixed methods design.

*Methods piloted but **not used** in the final research design owing to COVID-19*

The next part of this chapter provides an overview of the methods designed and piloted as part of the original research design, but where data was not used in the final analysis in this research. They are included here as they were part of the research plan for the duration of the project, up until its very final months. They are also included because the tools they incorporated were shared with a small sample of LCL Project participants during their piloting, and the feedback from these participants’ feedback, and the time they generously afford this part of the research process was critical to improving the effectiveness and reliability of the tools and the overall thinking and development of this research into its final design.

These methods were informed by the pragmatic mixed methods approach adopted for this research. These methods sought to generate detailed case studies of 11 LCL Project schools. These were intended to represent participants’ experiences and perceptions of the project (Yin, 2014). Alongside this, an online survey was designed and piloted to gather data from *all* LCL Project participants.

Both methods incorporated open and closed questions and sought to capture quantitative and qualitative data. Despite not forming part of the final data collection methods, both the online survey, the case study interview schedule and focus group questions were piloted with a small number of LCL Project participants. The final version of these data collection methods were amended in direct response to the feedback from the piloting process, securing their reliability and appropriateness when assessed against the quality-checking framework (*Appendix 3 - 3.4 Application of Biesta's 7 dimensions of Mixed Methods approaches - quality check*). The piloting process is detailed later in this chapter.

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### *Focus Groups & Semi-structured interviews with LCL Project Schools*

COVID-19 resulted in school closures and prevented data collection using this method. One project school was visited, however, and a focus group with teachers and senior leaders was completed. This first and only case study school visit served as a valuable pilot at the time, without knowing the extent of the disruption that was to unfold. The focus group discussion tested the focus group prompts and the flow and form of the semi-structured interview schedule (*Appendix 3 - 3.5 Semi-structured interview schedule - system leaders*). This provided valuable feedback for the design of the semi-structured interview schedule and when addressing challenges in the design of the interview schedule used in the latter part of the project (*Appendix 3 - 3.7 Challenges addressed in interview schedule design* (Brinkman, 2018). It is for this reason that this method is included in this section. Data from this one case study school, however, was not used in the final analysis.

### *Online survey – a mixed methods data collection tool for all LCL Project participants*

An online survey was designed to capture data from the LCL Project population was included in the original research design (*Appendix 3 - 3.6 Original proposed timeline for online survey*). The survey included closed (quantitative) and open (qualitative and quantifiable) questions. This tool was specifically designed for the LCL Project. The closed questions were designed with the intention of providing quantitative and generalisable data from participants that were measurable and comparable (Bryman, 2016; Coe et al., 2017). (*Appendix 3 - 3.3 Online survey (v.1 & pilot)*). To complement this, the survey also included open questions. These were designed to gather qualitative data, and provide deeper, individual, and personal insights for a selection of the closed questions. Respondents were invited to add comments for selected questions to explain their thinking and rationale for the responses they gave. These open questions were designed to provide data that was quantifiable (Denzin & Lincoln, 2018; Rapley, 2011; Silverman, 2011) and could be used to identify common themes across the project population.

The original research design planned to deploy the survey at two points in the LCL Project:

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- (1) To establish a baseline in the **middle part of the first year** of the LCL Project.
- (2) To generate directly comparable data and trace changes in perceptions and experiences over time, to be deployed in the **latter part of the second year** of the LCL Project.

The online survey was piloted with a small group of project participants in 2019, the first year of the LCL Project between November and January 2019. Feedback on the pilot tool was used to refine the survey and improve its effectiveness. The survey tool was launched in February 2020, just ahead of the first national COVID-19 lockdown across Wales and just as the major disruptions of COVID-19 were impacting on schools and the wider system. As a result of these disruptions, the response rate was insufficient, so this method was not used as part of the final data collection plan and no data from the initial launch was used in the final analysis.

#### *Case studies – selected LCL Project schools*

In the original research plan, the intention was to generate several detailed case studies from project schools from across Wales. These case studies were intended to capture data using a semi-structured interview schedule from the school leader involved in the project. Second, a focus group discussion schedule was designed to facilitate conversations between the middle leaders involved in the project. The case studies were intended to use qualitative and quantitative data to highlight, compare and contrast the commonalities and differences in the experiences and approach of the selected project schools.

Regional Leads from each of the four regions identified LCL Project schools as case study schools. These schools were invited by the Regional Leads to participate and eleven of them agreed to take part. The process of contacting them ahead of setting up times to visit was underway just as the first COVID-19 National Lockdown was announced across Wales.

Both the semi-structured interview schedule and the focus group discussion prompts were piloted successfully in one of these case study schools. Here, two researchers were present and information and consent forms completed by all participants in accordance with the



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usual ethical guidelines. Data was collected from these conversations, recorded by both researchers, and stored in accordance with ethical consents.

It is important to note, however, that the piloting process provided important feedback for the robustness of this research as it prompted minor amendments to both tools that improved their effectiveness and suitability. The intention to use these tools and the data from them remained part of the research plan until the final stages of the LCL Project. Ultimately, therefore, although this pilot data was collected, it was not ultimately used in this research, nor were these specific methods used in the adjusted research plan owing to the disruptions caused by COVID-19.

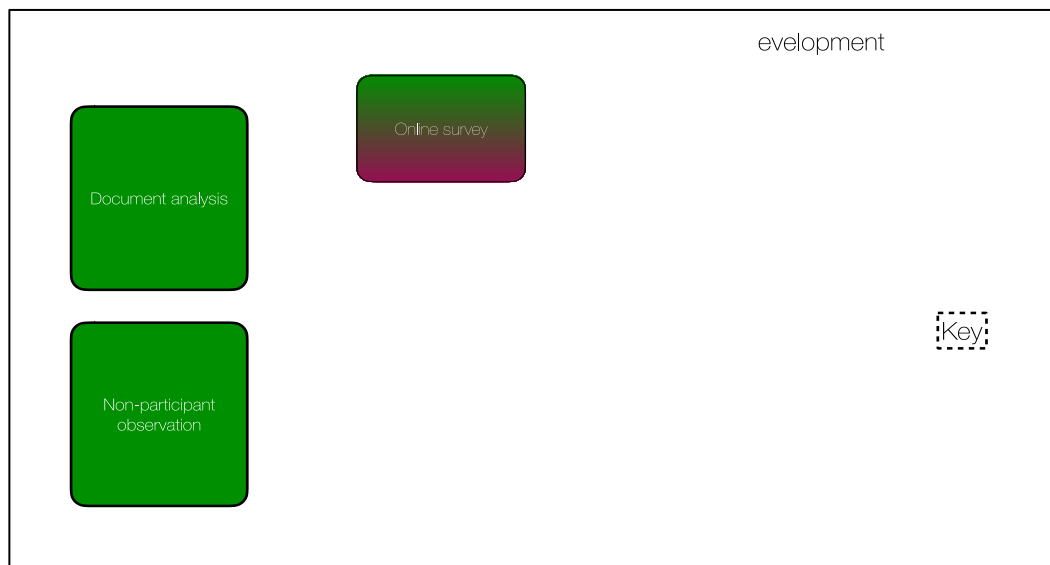
Methodological underpinnings of the original research design - a constant in the research, despite adaptations

The research design integrated mixed methods throughout the data collection, directly informing and shaping the iterative development of the data capture instruments. This approach to responsive and dynamic method-design added to the reliability and validity of the findings across varied contexts (Bryman, 2016).

The lines of influence between the mixed methods tools selected for the original research design are represented in *Figure 9*. This figure illustrates where, in the original research design qualitative, quantitative and/ or integrated mixed methods were to be used and how data from each instrument informed the design of the tools as the project progressed.

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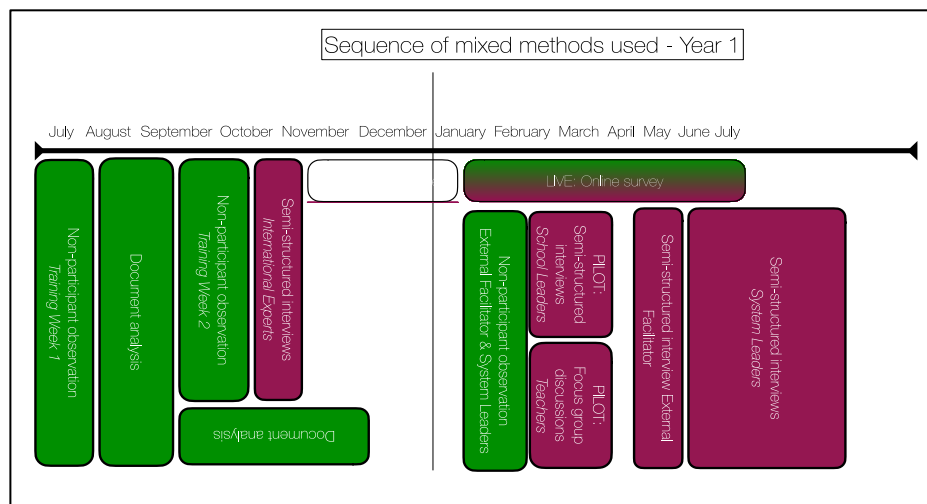
Figure 9: Lines of influence - mixed methods instrument development



This figure also identifies the *number* of tools used in the original research design and reflects how the qualitative tools selected for the original research design dominated the selected methods. Whilst this was a *mixed* methods research approach, it did include a greater number of qualitative methods. A balance, therefore, was sought in the original research design, between the deployment of the qualitative and quantitative methods in terms of the *influence* that each method. Originally, the data collection methods were designed to capture the individual and collective views, experiences, and perspectives of the entire LCL Project population. This included school leaders, teachers, and system leaders (Figure 10)

Figure 10: Sequence of mixed methods originally planned in Year 1

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### Section summary

The inclusion of the selection, quality-checking, design and piloting of the mixed methods used in this research reflects the methodological stance that underpinned this research. The origins of this research was as a pragmatic mixed methods approach. This underpinned the overall research design, the methods selected, designed and piloted and the decisions taken up until the very final stages of the LCL Project.

With the intervention of COVID-19, however, the final design of the research plan was adjusted. This led to its emergence to draw upon a predominantly qualitative methodology and methods approach. This predominantly qualitative methodological approach is therefore reflected in the adjustments made to the design and deployment of methods that captured and analysed the data in the final analysis. This in turn informed the findings in Chapter 5 of this thesis. The research design, however, retained its origins as a pragmatic mixed methods approach and it is this methodological stance that underpinned and influenced the research until the very final stages of the LCL Project, hence the inclusion of all methods designed and piloted in this section of the chapter.

### Part 3 – Rationale, purpose, processes, and scope of the research plan(s)

#### Participant selection for the LCL Project

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School leaders from 28 schools across Wales were selected and invited by Regional Leads to participate in the LCL Project based on their school categorisation. These schools represented a diverse selection of geographic, socio-economic, and language-medium contexts across Wales.

Project participants committed to participate in the project for its full 2-year duration. This involved engaging in the original scope of the project:

- Each project school team to include the school leader and up to three members of the senior and/or middle leadership team
- All project school teams to attend four 2-day training sessions over the 2-year duration (June 2019, October 2019, June 2020, and November 2020), committing to attending 8 full days’ training in total
- Project schools work with their linked Challenge Adviser and Regional Lead during the in-person training sessions with the project cohort
- Project school teams to complete ‘homework’ tasks in between the training days to implement the strategies, record changes, decisions, and any impact
- Project teams to feedback on their implementation work at the next training sessions with the wider project cohort
- Regional Leads to work with school teams (school leaders and linked Challenge Advisers) to facilitate collaborative opportunities for schools to work together in between the training sessions to share and reflect on their work as it progresses
- Regional Leads to work cross-regionally in teams to collaborate across the system to share practice, provide support and capture new learning from their own experiences
- Representatives from all three Tiers of the education system to attend training sessions and remain engaged in the project as it progresses over the two years
- The research element of the D&R processes to document, collect data to capture the ‘story’ of the project over the 2 years and share this as a series of progress, interim and final reports for Welsh Government.

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For the project, those working across and in each of the three levels of the system had specific roles (*Appendix 3 - 3.9 Participant roles in project cohort*).

The research plan(s), piloting processes and timeline(s) & COVID-19

The first phase of data collection took place in Year 1 of the LCL Project. This used three methods.

1. Immersive field notes: these captured data from the in-person training days in the 2<sup>nd</sup> training week (October 2019). This was during the first phase of data capture.
2. Document analysis: this was also used to collect data during this first phase of data capture. This captured data from (1) the course materials, and (2) the artefacts created by project participants.

The course materials included the pre-reading texts, and the training resources. These were analysed using text, phrase, and expression analysis. The artefacts created by project participants during activities included policy mapping and action plans generated in the second in-person training days during the second training week.

3. Semi-structured interviews: this was conducted with 15 system leaders and international SLO experts. The method was predominantly deployed during the second phase of data collection.

In line with the ethical considerations of this project, everything shared with and by project participants was done so with their express permission using the research consent forms (*Appendix 3 - 3.10 Sample anonymised participant information & consent form*). This included a requirement for additional confirmation if any direct attribution was appropriate to data included in submitted reports and associated publications.

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The research project was organised around a framework of intentions, processes, and outcomes (IPO) (*Appendix 3 - 3.11 Organisational framework (I-P-O) of original & adjusted research plans*). This was used to collect and organise the *individual* and *collective* experiences of LCL Project participants from Tiers 1, 2 and 3 of the Welsh education system.

The significant changes to the original research plan necessitated by COVID-19 altered the focus of the data capture plan. This moved the focus away from the global LCL Project population to the specific system-level experiences and understandings of:

- (1) system leaders working in Tier 1 and Tier 2 directly connected to the project
- (2) system leaders working across the system but not directly connected to the project
- (3) international SLO experts working beyond the system in Wales

This had both advantages and disadvantages to the research, discussed in Chapter 5.

The next section of this chapter briefly outlines each data collection method used in the final data collection.

#### Method 1: Immersive field notes

This research used immersive field notes (Allen, 2017; Cohen et al., 2017; Denzin & Lincoln, 2018) at a specific point in the project. The unstructured nature of the very first observations (Week 1 – June 2019) were informal, with the original intention of developing a natural and objective account (Robson, 2011) of all four sets of training sessions over the 2-year project (*Appendix 3 - Samples of immersive field notes - in-person training*).

This method was selected because of its suitability for collecting complex information. It therefore responded to and captured the completeness of both the structure, content, and delivery modes of the sessions themselves (Robson, 2011).

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This method also required an acknowledgement of the positionality of the researcher. In this method, the researcher-as-observer was closer to the “*pure observer*” end of the observer-role continuum rather than “*participant observer*”, identified by Robson (Robson, 2011, p.319). This reflected the assumption that the nature of the training observed was a fixed phenomenon, underpinned by a quantitative methodological paradigm. This reflected the positionality of the researcher when using this method as,

*...a detachment from, and interruption of, the processes of subjectification that empower researchers. Not distance from the observed but from the source of observation’s authority. From a critique of natural observation to a denaturalized observation.*

(Bratich in Denzin & Lincoln, 2018, p.538)

The aim of using this unstructured and informal approach was to, “*record in as much detail as possible...with the aim of developing a narrative account*” (Bryman, 2016, p.270).

The scope of the accounts generated from the in-person training sessions were limited to recording the key features of the delivery of the sessions. These key features included the key messages, practical tools and resources shared, the pedagogy of the external facilitator and the sequencing and structure of the sessions. They remained objective, descriptive and purely observational. They were not interpretative in their nature, nor did they seek to critique, make meaning, or evaluate the training sessions themselves (Bratich in Denzin & Lincoln, 2018).

The immersive field notes generated from the in-person training occurred in chronological order. The data captured included:

1. Timings of session starts, breaks and endings, recorded as time-stamps – to document the structure of the training.

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2. Identification of any points of emphasis made by the external facilitator – referencing specific slides used by the external facilitator to illustrate and reinforce key points and terminology.
3. Recording different pedagogical strategies during the training sessions – identifying direct instruction, collaborative watching of visual resources and stimuli, listening to audio, engaging in group work tasks, on-table discussions, between-table discussions, whole group feedback.
4. Recording when and how resources were used – when and to whom handouts, supporting materials, visual aids and prompts were distributed.
5. Noting specific language and terminology – to identify technical language, when and how links were made to the core training text, what and how connections were made to a wider evidence base, when and how references were made to national policy and context.

This method captured data that provided an accurate and entirely descriptive account of the delivery of the in-person training sessions. This documented the structure, pedagogy, and content of the sessions ahead of mapping this data against the research framework of intentions, processes, and outcomes.

The selection and design of this method reflected the embedded position of the researcher physically attending all five days of the entire 2<sup>nd</sup> week of in-person training for the LCL Project.

Researcher positionality is discussed in detail later in this chapter. Suffice to say, it was acknowledged that the positionality of the researcher in the project was not that of a distant or separate observer.

This method, when combined with this researcher positionality, had additional benefits. It offered the opportunity to become very familiar with the project, its content, key messages, training pedagogy and the sequencing of sessions. Without being immersed or embedded in the project, this level of familiarity from the outset would otherwise have been impossible.



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Insights were gained into the experiences of the project participants in the training sessions, as attendance was possible at the pre-training session set-up, the team check-in and the debrief conversations during and at the end of sessions.

Attendance was also possible during the post-session clear-up and the set up for the following day. Although data was only collected from the formal training sessions and the team project meetings, focused on the training pedagogy, attendance during the logistical elements of the project training sessions enhanced the immersive observer-researcher position. This deepened understanding of the relational **trust** across the project team, understanding of the system-wide **contexts**, the project **culture**, and **change** processes. Data from the immersive field notes also informed the design and content of the other methods used in the research design. The design of the online survey questions, the focus group prompts, and the semi-structured interview schedules all benefitted from the detailed data captured during the second week of training.

Furthermore, when adjustments were made to the project delivery plan, the training sessions were delivered remotely. The experience of using immersive field notes as a quantitative observation method directly informed the design of the non-participant observation notes (NPON) used to capture data from the remote planning and training sessions.

In summary, attendance at the in-person training sessions and the use of immersive field notes to capture data resulted in significant gains in the meaning-making (Mäkitalo, 2012) of this project, summarised as:

- Increasing familiarity with the **intention**, **processes**, and **outcomes** of the training sessions.
- **Contextual** understanding, awareness, and sensitivity to the contextual layers of the project – the political context, the structure, and roles and how these interacted within and across the system, the contrasting settings, and geographical settings of

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members of the project teams and the diversity of language medium across the project cohort.

- Sensitivity, awareness, and observation of the **change** processes involved at all levels of the system and within the project design.
- Developing a **cultural** understanding of the roles of the project participants within the system the roles of the system leaders and teams, including the Welsh Government representatives, Regional Consortia teams, the Regional Leads, and the Challenge Advisers.
- Understanding of the leadership practices.
- Invaluable opportunities to interact, build relationships and **trust** with project participants working across all levels of the system, ahead of the deployment of research tools and methods.
- **Trust** and knowledge building of the project processes, the pedagogical approach and thinking of the external facilitator and the pace and momentum of the project.

Although the method of immersive field notes in this mixed methods design was not in its essence, an ethnographic method, it reflected much that was familiar in ethnographic research. In doing so, the selected method acknowledged issues raised by methods that are ethnographic as, “...highly subjective method, in the sense that it is very sensitive to the researcher’s attitudes and perceptions” (Gobo in Silverman, 2011, p.28).

This issue of researcher subjectivity was fully acknowledged in the design of the immersive field notes. In seeking to record an objectively accurate account of the fixed phenomenon of the in-person training sessions, it drew heavily on ethnographic approaches (Battersby, 1981; Horst & Hjorth, 2014; Kuznar & Werner, 2001), but the issue of subjectivity was addressed by applying the framework in *Table 6*.

This justified the inclusion of this method as a quantitative element of the pragmatic mixed methods research design.

*Table 6: Rationale for the use of immersive field notes*

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<b>METHOD:</b>	
<b>Immersive field notes for the delivery and content of the training element of the project</b>	
Specific foci for this method	Pedagogical approaches adopted and modelled by external facilitator
	Key phrases linked to project text used by external facilitator, referenced in training materials and resources
Site for this method	Training days – x4 weeks of training over the two-year project. Each week including two consecutive days per cohort
Positionality and access of researcher in this method	Introduced to the project participants as a member of the research team and role as research officer/ PhD student on the project
Research stance in this method	Objective non-participant observer – informal and unstructured observations limited to an objective recording of the training process and delivery
Purpose of researching this element using this method	Ascertain the extent to which the training weeks function as a fixed and constant phenomenon within the overall project. Are the training days a common and shared experience for project participants in each of the two cohorts?
Fitness for purpose of this method	Primary benefit - Recording the training sessions in ‘real time’ – fidelity of delivery across two cohorts Secondary benefits – familiarisation with project intentions, processes and outcomes context and experience of participants (from observer POV)
Ethical concerns posed by this method	Participants must be aware of researcher role – addressed by explicit introductions at the outset Focus for this part of the project is restricted to documenting the pedagogical approaches of the training process and content – made clear during the training sessions and notes reflect this
Use of data gained from this method	Triangulation with other methods – document analysis, semi-structured interviews, focus group discussions, online survey – to create case studies and map against conceptual framework
Role of this specific method within the research design	Part of a pragmatic mixed methods design employing a convergent approach to: <ul style="list-style-type: none"> <li>• Understand the nature and design of the project</li> <li>• Compare the delivery and content of the training sessions across time and for each cohort</li> <li>• Analyse the intentions, processes, and outcomes of the training sessions</li> </ul>

*(Adapted from p.87, Coe et al., 2017)*

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To ensure against subjectivity in the immersive field notes, these were not pre-designed or formatted in their design. This meant that they captured the flow of the training as it was delivered and were shaped around this (*Appendix 3 - Samples of immersive field notes (in-person training)*).

This allowed the session to be recorded as it was delivered. In doing so, the training sessions determined the content of what was recorded, as opposed to fitting the details of the training sessions into a pre-determined template or observation schedule. This resulted in a complete and complex observation of the delivery of the training sessions.

The language of the observation notes was limited to only describing the process, content, delivery, and structure of the training sessions. This was later mapped against the organising IPO framework to identify the training intentions, processes, and outcomes at each phase of data collection. The language used by the external facilitator and evident during the training sessions were captured in the immersive field notes. The notes did not include evaluative statements, inferred meaning or observations of anything other than the factual content, sequenced delivery, and structure of the training sessions. Data from the field notes therefore identified:

- statements of fact
- timings and chronology of the sessions
- slide references
- key phrases
- points of emphasis, repetition, and review
- specific terminology distinct to the LCL Project

This reflected the adoption of a “*critical distance*” (Denzin & Lincoln, 2018, p.537) observational approach, was aligned to the methodological position of critical realism underpinning the research design.

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The immersive field notes also formed a significant part of the research journal and project log for the project (*Appendix 3 - 3.11 - Sample documents used as part of document analysis and 3.12 Excerpt from research journal & project log (anonymised)*).

This provided an additional level of researcher-reliability as it was checked for objectivity by another researcher (Bryman, 2016; Coe et al., 2017; Denzin & Lincoln, 2018). The research journal notes were also valuable to this research as an aide memoir (Bryman, 2016) as they traced the progress of the LCL Project. This was invaluable when COVID-19 intervened, forcing changes to the original research and project delivery plan (*Appendix 3 -3.1 Adjusted project plans*).

This method also contributed to the triangulation strategy in the integrated design of the data capture methods, where data collected from other methods was used to create a “*multi-faceted*” (Braun & Clarke, 2013, p.338) understanding of the experiences of the project participants. This added to both the factual reliability and the ecological validity of, first, the account of the training days in their own right and, second, that of the overall project findings (Bryman, 2016).

## Method 2: Document analysis

In the early part of this project, document analysis was selected for its appropriateness as an “*unobtrusive*” and “*non-reactive*” (Robson, 2011, p.349) measure. This provided multi-perspective insights into the collected data (*Appendix 3 - analysis used*).

Robson (2011) notes that document analysis, or as he refers to it, *content analysis*, shares some similarities with *structured* observation and as such, poses a problem in that the, “*...material to be analysed is not only unstructured, or at least not structured with the needs of the observer in mind; it will in general be a document with a purpose.*” (Robson, 2011, p.350).

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In response to this, the documents selected for content analysis were those shared with the LCL Project participants and integral to the content of the LCL Project. These included publications and pre-reading materials, and the training resources and materials shared during the training sessions by the external facilitator:

- The core text – “Clarity: What Matters Most in Teaching, Learning and Assessment” (Sharratt, 2018).
- Welsh Government Documentation relating to the Welsh SLO and the National Professional Standards for Teaching and Leadership (Welsh Government, 2017c, 2018b).
- Pre-reading supplied to project participants ahead of the in-person training sessions.
- Slides used during the in-person and remote training sessions.
- Handouts made available to participants following the remote sessions.
- Materials shared between sessions created by participants in this project.
- Materials shared by participants in other countries involved in similar projects shared with the external facilitator.
- Academic articles published by the external facilitator and co-authors.

The suitability of this method was checked by using a process adapted from Bhatti (2017). This was the same process as that used to check the suitability of the non-participant observation methods (*Table 7*).

*Table 7: Rationale for the use of document analysis using unstructured content analysis*

<b>METHOD:</b> <b>Unstructured content analysis of documents (publications, materials and resources)</b>	
Specific foci for this method	CONTENT: Key phrases reflecting terminology and technical language specific to this project.
	CONTEXT: Purpose of materials to – impart new knowledge, instruct, inform, make links to and connect with external sources of evidence and/ or policy, supplement training sessions, prompt/ provide further pre- or follow-up reading to deepen and consolidate knowledge, model and share practical

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	approaches and guidance, promote knowledge exchange, promote and stimulate collaboration, celebrate achievements and innovation.
Site for this method	Materials shared by external facilitator with project participants
Positionality and access of researcher in this method	Non-participant researcher undertaking unstructured content analysis as an unobtrusive, objective, ‘light touch’ quantitative approach
Research stance in this method	Objective observer – observations limited to a factual description of training process
Purpose of researching this element using this method	Identification of specific terminology, key messages, and central themes Alignment and coherence of project intentions, processes and outcomes with existing policy context and national, regional and local system context Identification of points of emphasis and key learning points in the project.
Fitness for purpose of this method	Primary benefits: <ol style="list-style-type: none"> <li>1. Identification of the underpinning rationale for the project overall as it is reflected in the training materials specifically through central themes, language, and terminology</li> <li>2. Clarification of intentions, processes, and outcomes from each training session</li> </ol> Secondary benefit: <ol style="list-style-type: none"> <li>1. increased familiarisation of the research with the project as a whole</li> <li>2. Increased understanding of project participants’ experiences of the project</li> <li>3. Identification of points of alignment with context</li> </ol>
Ethical concerns posed by this method	External facilitator consented to participate in the project as a ‘Development and Research’ (D&R) project
Use of data gained from this method	Triangulation with other methods e.g., the non-participant unstructured observations.
Role of this specific method within the research design	Part of a pragmatic mixed methods design employing a convergent approach to: <ul style="list-style-type: none"> <li>• Understand the nature and design of the project</li> <li>• Explore the content and context of the supporting documentation for the project</li> <li>• Analyse the intentions, process, and outcomes of the training sessions through the materials and supporting documents provided and generated</li> </ul>

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*(Adapted from Coe et al., 2017, p.87)*

This method captured valuable sources of data and confirmed some of the initial themes and, later, helped to consolidate and confirm the findings (Bryman, 2016; Creswell & Plano Clark, 2017; Robson, 2011). This also informed the on-going design of the qualitative methods used in the project.

### Method 3: Semi-structured interviews

The semi-structured interviews (Bryman, 2016; Mears, 2017; Robson, 2011) were part of the original research design and, in the adjusted research plan, were the predominant qualitative data collection method. Originally, this method was intended to be used in-person in two ways with, first, LCL Project school leaders and second, system leaders supporting the school teams and the coordination and delivery of the LCL Project.

After the beginning of the first national lockdown in March 2020, adjustments were made to the research plan. The semi-structured interviews were adapted to be used remotely with the system leaders directly involved in the LCL Project (*Appendix 3 - 3.15 Location, modes, & methods of interview – reliability, positionality & ensure validity*).

This method still provided an *active* method of interaction, despite the remote nature of the interactions. The selection of this method remained aligned to the critical realist paradigm of the research, as it was underpinned by the following assumption that,

*...a social encounter in which knowledge is actively formed and produced...the interview is not so much a neutral conduit or source of distortion, but rather a site of, and occasion for, interpretative practice.*

(Silverman, 2011, p.151)

The selection of semi-structured interviews as qualitative method was also assessed against possible benefits and drawbacks (Coe et al., 2017; Denzin & Lincoln, 2018; Mears, 2017). It



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was selected based on its benefits to the research and the quality of the data it was intended to capture. As all data gathered in the project was concerned with gaining insights into the complexities of participants’ own understandings (relevant to their role, of the project, the Welsh SLO model and/ or the application of learning from the training sessions in their own settings), this method enabled,

*...purposeful interactions in which the investigator attempts to learn what another person knows about a topic, to discover and record what that person has experienced, what he or she thinks and feels about it, and what significance or meaning it might have.*

(Mears, 2017, p.183)

The semi-structured interviews were employed to collect data relating to the:

1. Individual and collective *lived experiences* (Mears, 2017) of participants.
2. Participants’ perspectives on the fixed phenomena of the in-person training weeks.
3. Their engagement with the development and policy context of the Welsh SLO model.
4. Their understanding of the SLO Model within the wider policy context.
5. Their experiences of the SLO Model in practice.

In accommodating the more variable, nuanced, and complex influences of the changeable contexts and cultures of participants’ individual roles and settings, the semi-structured interviews established, “...a meaning-making conversation – a site of interpretive practice...[where]...the interview is actively productive of its results.” P.152

(Silverman, 2011)

The qualitative data captured using this method was particularly suited to the deductive analysis approaches detailed in the next chapter. Here the five themes of **context**, **culture**, **trust**, **leadership**, and **change** were applied to the data collected from the interview method.

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Decisions concerning the design of the semi-structured interviews reflected a synthesis of the considerations suggested by Mears (2017), Bryman (2016) and Creswell and Plano Clark (2017). This created a flexible interview schedule that captured the different perspectives of the system leader LCL Participants working in different roles across the system (*Appendix 3 - 3.16 Semi-structured interview design considerations*).

Although the semi-structured interview questions were universal for all participants, the possible artifice and an unnatural nature feel to them was avoided by following the pre-agreed protocols. This resulted in a natural, flowing conversation, allowing each conversation to follow a generally universal pattern, but for each to take its own course, reflecting different contexts, settings and modes. The universality of the main questions and the fact that they were all conducted remotely established consistency in the interview process. This strengthened the reliability and validity of the data (Bryman, 2016; Creswell & Plano Clark, 2017; Denzin & Lincoln, 2018).

Communication strategies and protocols designed to set up semi-structured interviews

Communications inviting participants to engage in the interview process were sent via email, using a standard template to ensure that every participant was contacted equitably and provided with the same information.

Interviews were set up in response to the availability and capacity of the project participants. This demonstrated the sensitivity and responsiveness of the research design, making sure that there was little, or no inconvenience caused to participants when agreeing to be interviewed. This was a particularly important consideration within the disruptive and stressful context of COVID-19.

The design of the semi-structured interviews

The disruptive nature of the context in which the majority of interviews were conducted was a major consideration. This informed the initial design and further refinements of the

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interview schedule. The time allowed for each interview was strictly limited to a maximum of 40 minutes, to ensure that the research made best and most purposeful use of the time offered by project participants (BERA, 2018), in balance with the time each participant was required to engage in this element of the research process.

The semi-structured interviews were prompted natural discussions and facilitate authentic, reflective conversations as part of a “*collaborative enquiry*” approach the design. This was a deliberate design decision reflecting sensitivity to the “*power differential*” inherent in each interview interaction (Mears, 2017, p.185). Issues relating to the power dynamics were consciously adhered to at all stages of the interview process.

The design of the interview schedule, in its inclusion of a limited number of open questions, and in the decision to reveal the themes to be covered *prior* to the formal interview taking place, all explicitly acknowledged the inherent power dynamics of the interview process (Torre et al., 2018). This power differential was not limited to the professional role of the interviewee and the positionality of the researcher, but also in the system leaders’ relationships to the LCL Project as an entity in its own right, and to the LCL Project school teams and of the role of the system leaders *in* the LCL Project (Braun & Clarke, 2013; Bryman, 2016; Mears, 2017).

The interview schedule and accompanying protocols were developed in response to Brinkman’s power characteristics (2018) in both design and deployment (*Appendix 3 - 3.13 Challenges addressed in survey design*). The specific detail of the questions in the semi-structured interview schedules were therefore designed to allow,

*...much more leeway for following up on whatever angles are deemed important by the interviewee, and the interviewer has a greater chance of becoming visible as a knowledge-producing participant in the process itself, rather than hiding behind a preset interview guide.*

(Brinkman, 2018, p.578)

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The interview questions were designed to accommodate varied responses from interviewees. They took account of the role of the interviewees, their context and their distance or relationship to the LCL Project. In attending to these influencing factors, trust was built between the interviewees and the researcher that sustained a natural flow to the conversations (Cohen et al., 2017; Creswell & Plano Clark, 2017; Korstjens & Moser, 2017).

A clear protocol for the interviews was agreed prior to the remote semi-structured interviews. This was strictly adhered to during the interviews and in the follow-up. The protocol specified who would lead each of the questions and, where more than one interviewer asked questions, agreed the handover points between questions. This ensured that everybody, and particularly the interviewee, was clear where the next question would come from, creating a safe space for honest conversations, and building confidence in the process for all those involved.

The time taken to establish these protocols proved invaluable. In the original research plan, the interviews were originally intended to be conducted in-person. The restrictions on travel and impact of school closures caused by COVID-19, however, necessitated significant adjustments to all elements of the design of the research, including the mode of these selected methods. All interviews were subsequently conducted remotely, either using audio-only conference calls or, as was the case in the majority of interviews, by using online video software (*Appendix 3 - 3.15 Location, modes, & methods of interview – reliability, positionality & ensure validity*).

The ease offered by technology to conduct remote interviews was counter-balanced by the difficulties of technical difficulties and delays. The pre-agreed interview protocols greatly aided the challenges caused by the technical delays and interruptions that frequently occurred over the course of the remote data capture. These technical interruptions often resulted in questions and responses overlapping and/or audio drop-out and /or noise interference. These disruptions posed three significant challenges whereby (1) the natural flow of conversation was interrupted or (2) questions and responses could be lost and/ or

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needed to be repeated several times or (3) the ability to generate an accurate transcript could be impeded by any interruptions, audio drop-out or interference.

The agreed protocols were invaluable in mitigating against these disruptions. They minimised the disruptions by ensuring that all participants, the interviewers, the interviewee and the researcher were clear about who was leading what question. Furthermore, the protocols enhanced by increasing participants’ confidence in the process. The conversations were thereby strengthened and the reliability and validity of the data captured benefitted as a result. With this, trust was established and grown between all of those engaged in the conversation, and this in turn generated authentic and open responses from interviewees.

#### Method 4: (Remote) Non-participant observation notes

The research plan originally intended to only use immersive field notes to capture data from all four of the in-person training sessions. After the first two weeks of these in-person training sessions, however, the disruptions caused by COVID-19 necessitated a significant change to the delivery mode for the remaining training sessions.

After much discussion and a period of deep uncertainty during which the scale of the COVID-19 related disruptions increased substantially across the wider system, the country and internationally, training sessions were redesigned. The LCL Project coordinators took the decision to deliver the training content remotely and use a live streamed webinar platform. Consequently, this required an adaptation to the data capture method for this part of the project. The alternative method selected and designed for this was non-participant observation notes (NPON). This was specifically designed to capture data from the remote rehearsal, planning and live-streamed webinar training sessions, responding to the nuances and opportunities presented by this alternative technical, online mode of training delivery to the LCL Project cohorts.

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The NPON method was used to capture data from each of the ten remote training sessions and the preceding ten planning and rehearsal sessions with the core delivery team. These planning and rehearsal sessions typically took place a day ahead of the live-streamed sessions.

The NPON were designed to capture data from the remote training sessions. The design of the NPON were checked and assured against the criteria described earlier in this chapter to confirm their suitability.

The differences of the NPON from the observational field notes used during the in-person training were small but significant. The focus for the data captured using the NPON, as with the immersive field notes, was the structure, delivery, design, and pedagogy employed by the external facilitator. For the NPON, however, the explicit involvement of the core delivery team became integral to the facilitation process. The NPON were ideally suited to capture and note the interactions, sharing of knowledge and discussions across the delivery team in rehearsal sessions and during the live webinar sessions. Further to this, the instances of direct input and sharing of individual and collective expertise from the system leaders was also captured during these adapted training sessions.

One deliberate omission from the data captured during these remote sessions was the data relating to *comparable content*. Although each individual live session shared a common structure, delivery style and format, and the resources shared the same design, delivered using the same facilitation pedagogy, the session content varied from session to session. Content was not, therefore a ‘fixed’ or directly comparable element. Because comparable content was not one of the elements of this data collection, none of the remote sessions or the live-streamed sessions were recorded digitally. This was because the NPON were effective in their own right to capture the specific data for which they were designed, negating any need for digital recording of the sessions. The NPON captured data relating to:

- key moments in the training sessions
- key messages shared by the external facilitator

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- pedagogical strategies employed by the external facilitator
- leadership approaches and modelling employed by the external facilitator and the core delivery team
- the frequency of inputs by system leaders in the core delivery team during the live streamed sessions
- instances of collaboration during the live sessions visible in the live chat

The focus for this method was therefore, concerned only with *process*, not *content*.

Repeated statements in the sessions were used to record the collective sentiments of the core delivery team with the external facilitator. These statements were generalised and anonymised in the final representations of data. This adjusted method also accounted for an adjustment of the positionality of the researcher. A detailed explanation of issues relating to researcher positionality is included later in this chapter.

#### Ethical considerations

Participant information and consent forms detailed the purpose, scope, and intentions of the research (*Appendix 3 - 3.10 Sample anonymised participant information & consent form*). These were shared with every participant ahead of all methods of data collection. The completed forms were always received prior to deploying data collection instruments, whether for piloting purposes or ahead of a full launch. These forms were signed by each interviewee, returned, and stored securely ahead of each interview.

When the semi-structured interviews were conducted, transcripts of all interviews with system leaders were stored separately from the completed consent forms. This ensured participant anonymity and confidentiality, in alignment with the usual ethical considerations and guidelines (BERA, 2018).

A coding system was created to maintain confidentiality and distinguish between individual participant comments. This further safeguarded participant anonymity and respected their confidentiality.

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A decision was taken to retain the general job titles for the project participants interviewed. These were used as part of the data coding system and the subsequent data analysis. The rationale for this was that the roles of participants were relevant to the responses they provided and added context to their insights, experiences, and comments. This also provided essential contextual background to the data, and as such, reflected the specific perspectives of the data selected and analysed.

All interviews were recorded digitally for accuracy and authenticity, using at least two different digital devices or software in case of any technical problems. The recordings were stored securely (using university password accessed cloud-based software) in accordance with the ethical and GDPR guidelines and consents for the project following the interviews. The role and purpose of the researcher as Research Officer and PhD candidate was shared with project participants. The role of the researcher at the in-person training sessions, remote rehearsal and planning meetings, and the live streamed webinar sessions was also made clear. Further to this, it was explicit that the LCL Project was the central research study in the researcher’s PhD thesis, relating to the Welsh SLO model.

### Issues relating to researcher positionality & reliability

During the in-person training sessions, the researcher attended every moment of the training sessions, and was physically present in every session, at times sitting in on table discussions with project teams and shadowing participants during the experiential elements of the training.

There were subtle but significant differences, however, in the nature of the presence of the researcher in the remote mode of the project, using the NPON method to capture data:

1. The researcher attended every remote planning and live webinar session. As with the in-person training sessions, the researcher’s presence was explicit and known to all project participants.



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2. The remote platform (Microsoft Live Streamed Webinars) gave access to live planning, cuing up and the choreography of the sessions when the live sessions were in progress. This was only visible to those in the backroom of the webinar platform. This provided additional data and again, reflected the different nature of presence of the researcher at the remote sessions, in comparison with their presence at the in-person training sessions.
3. The remote platform enhanced the objective observational stance and positionality of the researcher. New protocols were developed to allow the researcher to be out of view during the remote sessions, by muting the microphone and switching off the camera. This meant that there was no interaction or visible response or reactions visible or audible from the researcher during the sessions, but the researcher continued to observe everything in real time.
4. Finally, the text-chat function used in the live streamed sessions enhanced the data collection in a way that could only be achieved by using this remote platform. Instance of support and collegiality across the project delivery team was observed in this function in real time.

Throughout this research, the unique positionality of the researcher in a dual role as Research officer and PhD researcher is referred to and explored at relevant times throughout this chapter. The frequency of these references reflect how positionality was consciously attended to, and how it was an ever-present consideration throughout the research. This section, therefore, details the specific issues relating to the positionality of the researcher in relation to the LCL Project itself.

The distinctive dual role of the researcher served to strengthen the quality, reliability, and validity of selected data collection methods. It also contributed to the richness and depth of the data collected from LCL Project participants. Both benefits were evident in several ways.

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First, the potential challenges of the dual positional role of the researcher assured that any potential issues relating to positionality was consciously attended to throughout the research.

Second, the distinctive positionality of the researcher provided unique insights and opportunities for data collection. This ensured objectivity and secured this research in its critical realist paradigm. Taken together, therefore, explicit steps were taken that ensured the reliability and validity of this research (Clift et al., 2018; Dwyer & Buckle, 2009; Mercer, 2007) and the data specifically collected for the LCL Project (LCL Final Project report).

Third, whilst the position of Research Officer did not meet all the criteria of *insider* researcher (Dwyer & Buckle, 2009; Floyd & Arthur, 2012; Mercer, 2007), the positionality of this immersive role was of significant value to the flexibility and adaptiveness of the research in response to external factors intervening that complemented the inherent design of the LCL Project specifically as a ‘Development and Research’ (D&R) Project, as opposed to either a Research-only or Research and Development (R&D) project. The immersive position of Research Officer raised issues that resonated with issues raised by insider/outsider positionalities (Southern, 2022).

These potential issues were resolved by invoking philosophical standpoints from Mercer (2007, p.3), “...that *insiderness and outsiderness are better understood in terms of a continuum rather than a dichotomy.*” (Mercer, 2007, p.3). These considerations addressed issues raised by insider positionality and allowed for mitigating steps to be taken.

These steps guarded against the potential risks of bias, reliability, and undue influence on the data and included:

- Discreet piloting of data collection tools – the adaptation of these in response to feedback was documented in the research journal and reflected on in supervision meetings

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- More than one researcher - attendance of at least two, if not three researchers during semi-structured interviews to ensure reliability, fidelity, consistency and mitigate against bias.
- Inter-researcher reliability – researchers present at interviews undertook content, accuracy, and clarity checks on the design and deployment of the selected methods for semi-structured interviews (*Appendix 3 - 3.15 Location, modes, & methods of interview – reliability, positionality & ensure validity*).
- Record-keeping - meticulous record-keeping and documentation was maintained throughout the two-year project using the research journal and the project log to record potential conflicts of interest and actions taken to address these (*Appendix 3 - Samples of immersive field notes (in-person training)*)
- 3.12 Excerpt from research journal & project log (anonymised)
- Blind coding exercise\* - a blank coding sample was shared with an external researcher to clarify and confirm code definitions. Feedback from this was acted upon, resulted specifically in a clarification of the distinction between two of the main themes, **context**, and **culture**.
- Triangulation processes - independent note taking was undertaken during interviews, and summary notes were verified with research-colleagues in attendance following the semi-structured interviews (*Appendix 3 - 3.16 Semi-structured interview design considerations*)

In adopting these mitigating steps, the researcher adopted a position that acknowledged the liminal space created by the combined position of researcher-as-Research Officer and researcher-as-PhD student.

In summary, this approach to positionality resonated with the previously stated philosophical standpoint of Mercer (2007), and outlined by Dwyer and Buckle (2009), “... *the time has come to abandon these constructed dichotomies and embrace and explore the complexity and richness of the space between entrenched perspectives.*” (Dwyer & Buckle, 2009, p.15).

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## Chapter summary

This chapter detailed the rationale and philosophical underpinning of the multiple decisions taken concerning the selection of research methods, their deployment, their integration, and adaptations. The inherent risks relating to positionality are frequently acknowledged and the steps taken to mitigate against these risks have also been detailed here.

Similarly, this chapter demonstrated how the highest possible ethical standards were met in this research.

The next chapter explains the integrated analytical processes applied to the data once it was collected.

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## Chapter 4 – Data Analysis

### Introduction

This chapter details the rationale for the selected analytical approaches applied to the data collected during this research and how these processes were applied. The chapter is therefore presented in two parts.

**Part 1 – Rationale:** this explains the underpinning rationale for the decisions taken concerning how the data was prepared, organised, and represented considering the selected analytical processes. Aligned to the methodology underpinning this research detailed in the previous chapter, the data analysis approach selected for this research reflects the epistemological and ontological stance of the research design. The selection process was also informed by the review of the literatures and directly related to the research problem presented in Chapter 2.

**Part 2 – Data analysis process:** This demonstrates the coherence of the research design, from its context, location, formulation, and re-formulation of the research problem in Chapter 1, the development and subsequent application of the conceptual framework outlined in Chapter 2 and the selected methodology and methods explained in Chapter 3.

### Part 1 - Rationale

#### Data preparation

Fifteen semi-structured interviews were conducted remotely between November 2019 and July 2020 with international experts, system leaders and school leaders and practitioners. All interviewees were interviewed as individuals, except two who were interviewed together. The interview with the two participants together was first transcribed to create

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one transcript, after which two individual transcripts were generated, ensuring accuracy when analysing all project data.

Once again, the disruptions caused by COVID-19 affected the design of the research plan, the methods and focus for the data collection and the overall sequencing and timeline for the data capture.

Limited school opening between 23<sup>rd</sup> March and 29<sup>th</sup> June 2020 necessitated adjustments to the research plans.

First, the decision was taken to, initially, postpone conducting focus groups with project teachers and semi-structured interviews with school leaders until the Autumn term. The aim of this was to generate detailed case studies from project schools but data collection at this time would have had little benefit. In fact, it could well have been detrimental to relationships across the project cohort and researcher by creating more pressure in already turbulent circumstances. This decision was taken, primarily, based on the ethical and reasonable data collection approaches related to staff wellbeing (BERA, 2018; Cohen et al., 2017).

Second, the National Lockdown travel restrictions and disruption to normal school operations meant that no access was possible to project schools in this phase of the data collection. The decision was therefore provisionally taken to move the focus of data collection to the system leaders working with the project schools. The intention was to resume and complete data collection from project schools after the summer break when it was hoped that the disruption of COVID-19 was greatly reduced. The data collected from system leaders working in the Welsh education system in this research documented how system leaders continued the LCL Project work within their own teams. These teams were in Local Authorities, across the Four Regional Consortia, within Welsh Government and, where it was possible, with project schools.

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It is appropriate at this point to state that the continued impact of COVID-19 for the duration of the LCL Project prevented any resumption of data collection with project schools in this research. This meant that the temporary adjustments and contingency data collection plans made between the months of June and December 2020 became permanent changes (*Appendix 4 - 4.1 Contingency data collection plans*).

The next adjustment was to conduct the semi-structured interviews with system leaders remotely, using either Zoom or Teams video-conferencing platforms, depending on the participant’s access requirements and preferences (*Appendix 4 - 4.2 Completion process of semi-structured interviews with system leaders*).

The semi-structured interview protocols were re-designed to accommodate the move to remote, rather than in-person interviewing (Lo-lacono et al., 2016).

The adjusted protocols included:

- Explicitly identifying the lead interviewer.
- Explicitly identifying and explaining the roles of accompanying researchers.
- Reaffirming the parameters of the interview.
- Reaffirming the place of the semi-structured interviews within the wider LCL Project.
- Securing additional verbal consent from the interviewee to record both the video and audio components of the interview (this was in addition to the consent already provided in the pre-submitted completed information and consent form).
- Planning time to answer any questions or concerns expressed by the interviewee prior to the interview commencing.

Considering the context of lockdown, disruption to the project, the wider system, and the impact of COVID-19 during this time, these explicit opportunities to check-in with project participants were an unexpected benefit of continuing with the data collection processes during this time. These benefits included:

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- Maintaining lines of communication across the system in and within the wider LCL Project team during significantly disrupted times
- Strengthening relational trust between researchers and LCL Project participants
- Maintaining the momentum of the research element of the LCL Project
- Documenting the influence of external contextual factors within the narrative of the LCL Project
- Capturing data that was sensitive to context
- Employing pragmatic, ethical, and reasonable data collection protocols in response to the experiences of system leaders, LCL Project schools, the core delivery team, and researchers

COVID-19 continued to have a significant impact on the LCL Project, and the data collection processes from this point on.

Integrated analysis to visualise the data

The qualitative data from the semi-structured interviews was integrated with data collected from other methods and quantified (Creswell & Plano Clark, 2017). Quantification of the qualitative data was fundamental to communicating the research findings accurately and with fidelity. This addressed one of the main aims of this research, assuring that participants’ voices were privileged, and their experiences insights and perceptions were honoured (Ganon-Shilon & Schechter, 2019; Leat et al., 2014; Parr, 2015).

Quantifying the data provided opportunities to visualise the data. This provided immediate analytical insights. These visualisations included charts, Sankey diagrams, relational network maps, word clouds and joint display tables with summarising text. These further served to exemplify, illustrate, explore, and represent findings from the research (*Appendix 4 - 4.3 Samples of visualisations as data analysis*).

The data gleaned from the qualitative methods were analysed and then integrated with the patterns and themes that emerged from the quantitative methods. This process assessed



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the extent to which the themes emerging from the data, “*confirmed, disconfirmed or expanded*” (Creswell & Plano Clark, 2017), the themes in the conceptual framework and addressed the research problem.

This integrated analysis also strengthened the reliability of the emergent themes as part of the cyclical data collection design process. The integration process was, therefore, reciprocal, and enabled the quantification of the qualitative data at the integration points (Creswell & Plano Clark, 2017).

Whilst only *individual* experiences were captured using the semi-structured interviews with system leaders, the *collective* experiences of participants were captured from the immersive field notes from the in-person training (October 2019) and the non-participant observation notes from the remote rehearsal sessions and live streamed webinars (January – July 2021). By integrating these results, the collective *and* individual experiences from the project participants were represented and analysed.

Comparative insights were generated from the data by quantifying the qualitative data (Chi, 1997; Mackenzie & Knipe, 2006). These were enhanced by applying cross-sectional analysis methods (Bazeley & Jackson, 2013; Braun & Clarke, 2013; Cohen et al., 2017; Rapley, 2011) and identified commonalities and differences by role across the LCL Project participant population.

These insights were further enhanced by using visual representations (different forms of diagrams, charts and word clouds) (*Appendix 4 - 4.3 Samples of visualisations as data analysis*) to compare, quantify and highlight pertinent quotes (Kolar et al., 2015; Mannay, 2010a; Mason, 2018; Nuttbohm et al., 2009).

The frequency of the emerging themes was organised using the research framework and then mapped against the conceptual framework. They were then analysed cross-sectionally (Mason, 2018). This qualitative data was then quantified into comparable and, albeit

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*cautiously*, generalisable data to reflect the individual, collective and system-wide responses, and experiences of the study population (Berends et al., 2011; Berends, 2011).

This integrated data analysis process helped to first, organise and categorise the large amount of data collected from the 15 semi-structured interviews. This was then analysed alongside the themes from the conceptual framework and integrated with the themes that emerged directly from the data.

The quantification of this data was completed by using the extensive functionality of a computer software programme, Atlas.ti.

This generated multiple options for comparisons, amongst which, comparisons were made between:

1. Responses to the same questions and prompts by different groups of participants
2. The main themes (closed codes) and the emerging themes (open codes)
3. The cross-sectional analysis to compare responses coded against the conceptual framework on the one hand (*change, context, culture, leadership, and trust*) and the research framework (*intentions, processes, and outcomes*) on the other

The nature of the pragmatic mixed methods research design of this study benefitted from the integration of data analysis procedures throughout the study. This was used to respond directly to, first, the research questions and second, the problem of this research.

The research questions sought to understand and interpret the integrated data from:

- individual and collective experiences of study participants
- two observation methods employed
- analysis of LCL Project reading, resources, and training documents.

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From this integrated approach, distinctive features of system conditions were identified during the LCL Project.

In response to the specific research problem, the integrated data was interrogated further to explore what system capacity and capabilities were needed to enable the necessary system-wide knowledge mobilisation and transference of new practices and thinking as part of a sustainable implementation process.

For this problem to be fully addressed, the integration of analysis procedures from the mixed methods outlined in Chapter 3 served to, “...develop results and interpretations that expand understanding, are comprehensive, and are validated and confirmed.” (Creswell & Plano Clark, 2017, p.221).

The common concepts, patterns, and themes identified in the data collected from the quantitative methods used in this research (document analysis, non-participant observation notes and closed questions in the online survey) were mapped concurrently against:

- (1) the five main themes in the conceptual framework developed from the literature review
- (2) the three elements of the research framework

The data collected from the qualitative methods used in the research; the semi-structured interviews and focus group discussions, were analysed, organised, and integrated using two frameworks, the conceptual framework, and the research framework.

Patterns were identified and cross-referenced from the quantitative methods data using document analysis and non-participant observation notes, with the patterns and themes in the two frameworks.

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Another benefit of integrating the data from the mixed methods tools was to strengthen the reliability of findings from all methods as the study progressed and generate a comprehensive evidence base to address the research problem (Robson, 2011).

Just as the application of the methods were part of an iterative, cyclical process of data collection and instrument development, the integrated analytical approach was iterative and cyclical.

The data from both quantitative and qualitative methods continually confirmed, disconfirmed, or expanded the emergent patterns and themes, thereby letting the data tell its own story.

An ethical and valid approach to data collection and analysis

This integrated approach resulted in a comprehensive, coherent and, importantly, an ethical representation of participants’ responses, where the,

*...ethical argument is paramount since qualitative research is based on relationships which emerge between the researcher and data, the researcher and research participants, data and research participants and the wider circle of readers. Therefore, they argue that the trustworthiness of a qualitative study needs to be judged on how ethically it is done with relation to research participants, other stakeholders and the scientific community.*

(Johnson & Rasulova, 2016a, p. 12-13)

A deep familiarity with the original data (Coe et al., 2017; Robson, 2011) resulted from frequently re-reading, reviewing and selecting specific quotes from the data which were then cross-referenced with the main themes and emerging themes to select evidence to inform the analytical processes.

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Where data was chunked to make it manageable, this was limited to paragraphs and full sentences wherever possible. This prevented fracturing the data and avoided losing either meaning or context (Bryman & Burgess, 2001; Cohen et al., 2017; Silverman, 2011). This approach resonated with Blaikie & Priest’s (2000) definition of an *abductive* research strategy where, “*Abductive logic is used for theory generation, hypotheses are an integral part of the continuing process of data collection and analysis, of observation, reflection, hypothesizing and testing.*” (Blaikie & Priest, 2000, p.79).

This iterative reflexive approach applied the conceptual and research frameworks to form a coherent analytical cycle. Two further benefits of this approach were to the validity of the analytical process.

First, responses of interviewees to the same questions contributed to the ecological validity (Braun & Clarke, 2013; Mason, 2006, 2018) of the analysis. Here, data collection processes connected with the real-world experiences of the participants through the *interactive* nature of the semi-structured interviews. Second, this analytical approach contributed to the validity of interpretation (Mason, 2018) as the analysis required, “*...continuously and assiduously charting and justifying the moves and creative processes through which...interpretations were made, and the particular kinds of iteration and closeness with data – in what shapes and forms – that were involved*” (Mason, 2018, p.240).

The benefit of adopting this analytical approach was the thorough and robust analytical process of the data collection methods and the concurrent interpretative process adopted throughout the research.

Systematic clarification of the creation and allocation of open and closed codes relied on establishing links across the context, the literature, and the study design. In this way, the appropriateness and relevance of the selected quotes and codes to respond to the research problem were confirmed.

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The integrated analysis benefitted from the application of “*different constructions*”, to meet the “*authenticity principle*” where, “...*the researcher should make sure that different constructions emerge to allow conflicting constructions and value structures to express themselves.*” (Johnson & Rasulova, 2016, p.13-14).

In all ways, then, this systematic and iterative, integrated data analysis demonstrated a “*validity of methods and of interpretation*” (Mason, 2018, p.242), meeting the quality assurance criteria selected for this research in the 15-point checklist for good thematic analysis (Braun & Clarke, 2013).

Analytical approaches that informed decisions concerning how to represent the data

Finally, the design of the original research plan included the generation of case studies to represent the data and illuminate understanding (Coe et al., 2017; Cohen et al., 2017; Yin, 2014). Although case studies were not used in the final research, the transformation of qualitative data into quantitative data was a selected method for the integrated data collection and analysis prior to the adjustments to the data collection plans. This approach was considered to be the most appropriate approach, rather than transforming quantitative into qualitative (Creswell & Plano Clark, 2017).

These integration methods were used with the collected data. This integrated the data, following its organisation into the three elements of the IPO research framework. This resulted in the identification of distinctive experiences of study participants which were represented in first, visualisations and second, narrative accounts (Creswell & Plano Clark, 2017).

These insights were further analysed by using a range of visualisation tools as analytical instruments in the first instance, discussed later in this chapter. This allowed for statistical comparisons, including occurrences and co-occurrences of terminology, identification of common language, and shared and distinctive perspectives and interpretations. These were then illuminated with pertinent quotes, used in accordance with ethical permissions, which

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served to honour the *authentic* voice of the LCL Project participants (Johnson & Rasulova, 2016a).

Integrating the data from the mixed methods and applying visual and statistical representations enabled a detailed exploration of comparable and generalisable data. This generated accessible, robust and reliable representations of the data that directly responded to the research problem and research questions.

Whilst the integrated and iterative analytical approach was originally intended for the generation of in-depth case studies, all elements of the pragmatic and iterative design of the research benefitted from the inclusion of these inductive approaches. Most notably, the inductive approaches were critical in identifying the two emergent themes in this research, presented in the findings in Chapter 5 of this thesis.

Ultimately, by applying a fully integrated approach, which had originated from the intention of the original research plan to generate case studies, benefitted the data analysis by highlighting the nuances and subtleties of the data which may otherwise have been overlooked.

Furthermore, this integrated approach allowed for the analysis of the commonalities and differences across and between *individual* and *group* participant responses which were able to be drawn out from the data.

Ultimately, this integrated approach represented not only the complexities, contextual factors that influenced the whole of the LCL Project, but also the diverse perspectives of the participant’s insights and experiences throughout the two years. Combining the complexity of the research problem with the complexity of the wider system in which the project was located was, therefore, an outcome reflected in the findings represented in Chapter 5.

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These elements of complexity were represented in the findings by applying a number of cross-sectional analysis using the five themes of the conceptual framework (**context, culture, trust, leadership and change**).

The integration of these five themes with the three elements of the IPO research framework created a robust and comprehensive evidence base of integrated quantitative and qualitative data. Together, this established the coherent response to the research problem, presented in the findings in Chapter 5.

The next part of this chapter provides an account of the analytical process and details the rationale behind the decisions made concerning how the data was represented following its analysis.

## Part 2 - Data analysis processes

Analysis tools – computer software and available expertise

Once prepared, the data was uploaded to the qualitative data analysis software, Atlas.ti. The selection of this software was based on its accessible user interface, its capability for visualisation and the additional support available on its online platform and through the dedicated support community.

In addition to this, 1:1 support and coaching was generously provided by a colleague in the department who was a highly experienced qualitative researcher and tutor in Atlas.ti. This 1:1 coaching, support and tuition was provided via one-to-one remote video sessions. These sessions included general options and approaches to analysing qualitative data. These sessions were followed by detailed interactions with Atlas.ti and familiarisation with its functionality and exploration of its capacity.

The coaching sessions provided valuable insights into ways to approach the data analysis specifically with Atlas.ti and, more generally, options concerning the philosophical, ethical,



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and practical perspectives related to data analysis and representation. The impact of this coaching was to apply meticulous and robust processes to preparing the data, ensuring its security and the iterative analytical approaches presented in this chapter.

A positive feature of this software was its extensive functionality. This meant that data was rapidly organised, re-organised, grouped, coded, and cross-referenced with documents, memos, and audio excerpts. This was undertaken according to both pre-defined (deductive) *and* emergent (inductive) categories, in an integrated way.

This approach generated a selection of data visualisations at each phase of the analysis. These visualisations became integral to representing the data at all stages of analysis to see how the main themes developed over time in an accessible format (*Appendix 4 - 4.3 Samples of visualisations as data analysis*).

Visualisation options were frequently made use of to document and articulate the emerging connections, identify relationships, and compare specific features within an increasingly growing body of data (Berends, 2011; Giesler, 2017; Mannay, 2010b; Nuttbohm et al., 2009).

The visualisations also facilitated frequent re-visits to the original data as part of the checking, quality assurance and refining process adopted in the analytical approach. This ensured that the research was securely anchored to the research questions and research problem.

An integrated and iterative analytical processes

The data analysis processes involved the integration of the quantitative and qualitative data captured from the different methods described in the previous chapter. This integrated approach lent itself to a cyclical, phased and on-going analytical process that allowed concurrent data collection and analysis.

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This had the benefit of checking, confirming and/ or dismissing emergent themes in a dynamic and responsive way (Niglas, 2015; Rickinson et al., 2017; Sammons et al., 2016).

The next section of this chapter is organised into the three main phases of data analysis:

Phase 1: Preparing, organising, and reducing the data

Phase 2: Coding and categorising the data

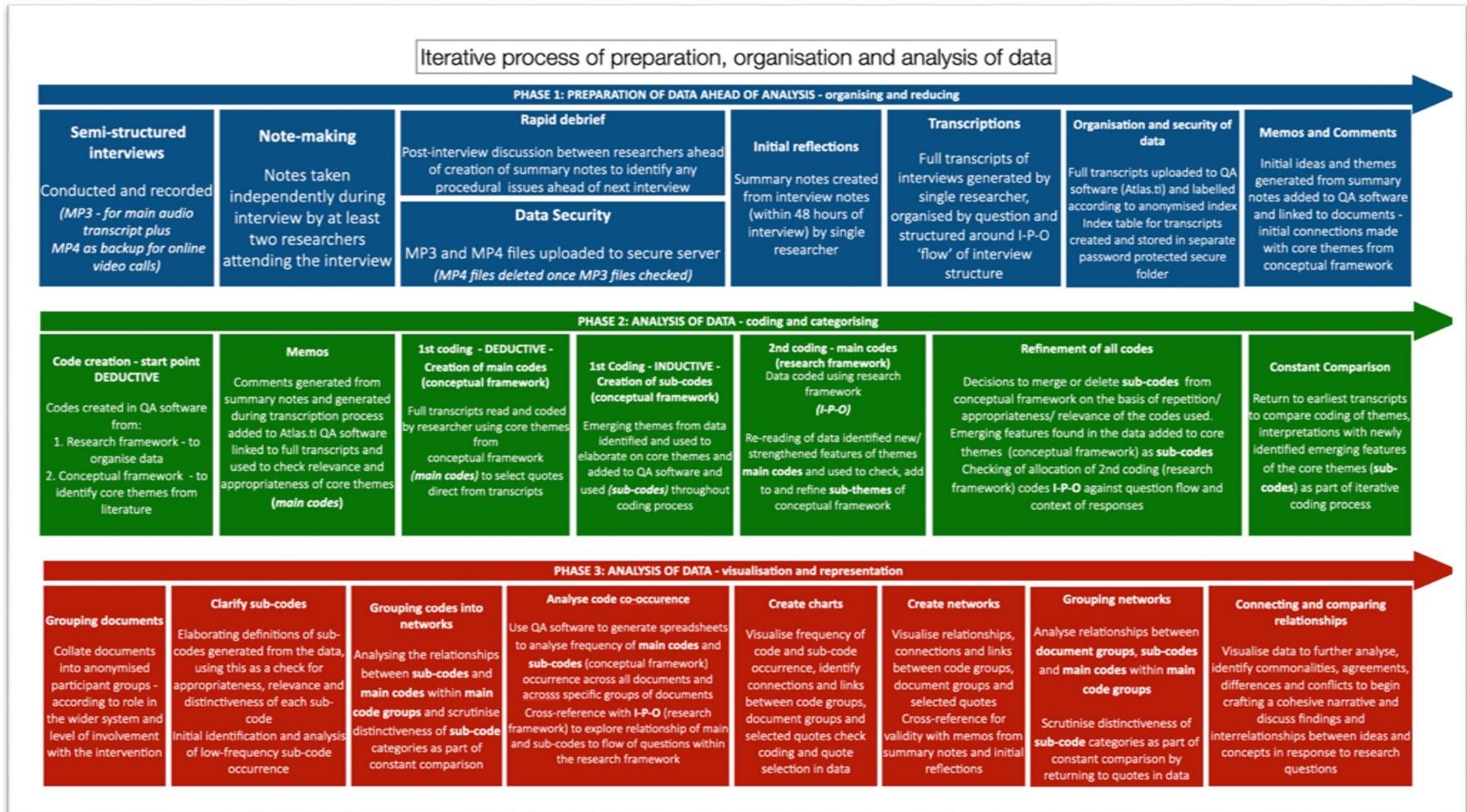
Phase 3: Representing the data

The section is introduced with a graphic representation to illustrate the integrated, concurrent nature of the three phases of data analysis (*Figure 11*). This main graphic is then broken into its three constituent parts, representing the three interdependent analytical phases.

Each of the three phases of the data analysis is introduced with the relevant section from the main graphic to reinforce the iterative nature of this integrated process (*Figure 12; Figure 13; Figure 17*). This reflects its interrelationship with the other phases of analysis as part of one coherent and cyclical process.

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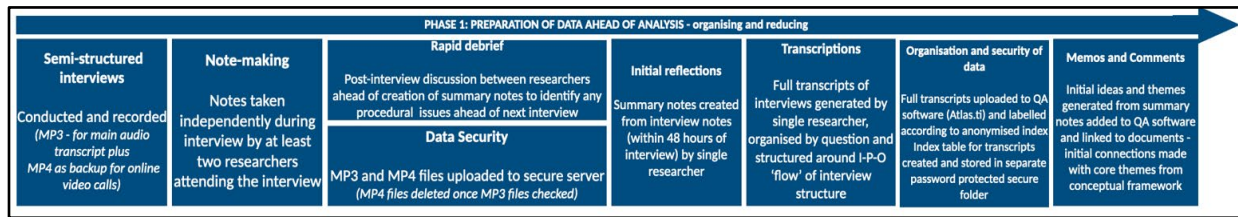
Figure 11: Overview of iterative integrated data analysis



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## Phase 1: Preparing, organising, and reducing the data

Figure 12: Phase One - Preparation, organisation, and reduction of data



The consistency of each semi-structured interview was maintained by using, first, the overarching research design to decide upon the sequence and flow of questions and prompts. The research framework was aligned to the reformulated research problem, ensuring that the data collected related directly to the research questions (Biesta, 2020).

The research process therefore respected the positive engagement and time commitment of the study participants (Bryman, 2016) and ensured that all interview questions related directly to the research problem.

Because the research framework was used to guide, not prescribe, the sequence of questions, the discussion between the researcher and the interviewee flowed more naturally,

The consistency of the questions across all 14 semi-structured interviews, the responses from the study population generated a set of responses that were be easily compare, despite the diversity of their roles.

### Preparation of data

Handwritten notes made during the recorded interviews were converted independently into summary notes almost always *immediately* after each interview and never more than 48 hours later. This ensured reliability and validity from the notes and provided additional security if there was a technological failure affecting the digital recording process. These summary notes

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included comments and memos generated as part of a grounded theory approach (Glaser & Strauss, 2017).

As the summary notes were typed up independently of the other researchers who were present during the interview, accuracy was ensured with authentic reflections on the participants’ responses. This had the additional benefit of increasing familiarity with the data from the outset. Memos were created from the summary notes and later uploaded to the memo function of the Atlas.ti software and connected to the full transcript.

An accurate summary of the interview, formatted question by question, was created in accordance with the ‘15-point checklist of criteria for good thematic analysis’ (Braun & Clarke, 2013, p.287).

The same approach was adopted for the generation of the non-participant observation notes (NPON) from the remote rehearsal and live streamed webinar training sessions (*Appendix 4-4.4. Sample of NPON from remote sessions*).

The immersive field notes were handwritten by the researcher as an anonymised record of the structure, design, and delivery of the in-person training sessions. These notes were transferred into digital format following the completion of the second week of in-person training. These were then shared with research team members for reliability and accuracy.

Quality assurance during data analysis

The “neutral approach” adopted in preparing the data for analysis was coupled with the application of “Open-ended, flexible’ quality principles” (Braun & Clarke, 2013, p.289). This created a quality assurance checklist for the data analysis processes (*Appendix 4 - 4.5. Quality assurance processes*).

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This included the following considerations:

Sensitivity to Context –

- Contextualising the research
- Sensitivity to participants’ perspectives
- Sensitivity to ethical concerns
- Sensitivity to the data

Commitment and rigour –

- Thorough data collection
- Breadth and depth of analysis
- Methodological competence and skill
- In-depth engagement with topic

Transparency and coherence -

- Clarity of representation of data
- Fit between research questions, frameworks, and methods
- Transparent account of data collection and analysis processes
- Reflexivity concerning decisions relating to the research design

Impact and importance -

- Practical applicability
- Theoretical impact
- Socio-cultural impact

(Braun & Clarke, 2013)

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Transcribing the semi-structured interviews

The transcript was generated independently by the same researcher, using the MP3 file as the raw data source, labelled according to an index table to anonymise the data file, and stored securely on a password-protected server. A separate digital recording device was selected and purchased for this research based on its functionality, high quality microphone and secure storage options.

Between March and July 2020, MP4 files were also created from the 12 online interviews, using the selected video software, either Zoom or Microsoft Teams. These files served only as backup files if the digital MP3 recorder failed, so once the MP3 recordings were assessed for quality and completeness, and transcribed, the MP4 recordings were deleted from the secure server on which they were held. This further safeguarded participants’ anonymity in accordance with the ethical guidelines adhered to throughout this research.

All participants were made aware of the security and data protection processes ahead of their interviews as part of the ethical procedures. They were asked to complete and submit a specifically designed information and consent form adapted in response to COVID-19 conditions, ahead of the remote video interview (*Appendix 3 - 3.10 Sample anonymised participant information & consent form*).

Participants were reminded of the recording procedures once again by the lead interviewer at the outset of the interview. This had the advantage of providing participants another opportunity to be informed of the research project parameters, ask any questions and to give their verbal informed consent for the interview to be recorded.

All responses from the interviewee and all questions, including all follow-up comments or clarifications subsequently posed by the lead interviewer were fully transcribed verbatim. These were clearly labelled as questions and comments on the transcribed document, with the

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lead interviewer identified using initials (*Appendix 4 - 4.6. Sample excerpt of coded transcription from remote interview*). Questions or clarifications from the other researchers present during the interviews were also noted and labelled. All pauses, hesitations by all involved in the conversation were noted. This resulted in a detailed and accurate account of the interview.

The initial analysis of the newly created transcript was deductive. Comments and reflections were assigned to sections or chunks of the data as a first analysis of the transcript using the 5 themes from the conceptual framework.

Concurrently, the research framework (I-P-O) was used to organise the transcript to reflect the flow of the questions and to identify comments that related to each of the three categories where they occurred out of the order of the questions. This deductive process was consistently followed for each of the 14 semi-structured interviews. Once the first full transcription with comments and memos was completed, it was uploaded securely into a labelled folder and checked by at least one other researcher for reliability and accuracy.

A second version of the transcript was then prepared and uploaded to Atlas.ti. This was a ‘clean’ version of the transcript. Here, all comments and memos were removed, and the final transcript was labelled as the ‘BASIC’ version. This was checked again for accuracy against the MP3 recordings and then uploaded to the Atlas.ti software ready for the next, inductive phase of analysis. Creating this clean version of the transcript was critical in ensuring the accuracy and validity of the word frequency analysis.

Combining two frameworks and integrating approaches

The conceptual framework and the research framework were used to analyse the data concurrently (*Appendix 4 - 4.7. Concurrent data analysis process*). The adoption of this two-framework approach ensured a thorough approach to the analytical process from the outset. It also maintained the integrity and avoided extensive fracturing of the data.



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The five themes from the conceptual framework were used in the first instance, as part of a deductive approach to the data analysis. This confirmed the categorisation of data, and identified the distinctive features of the five themes, whilst maintaining an open approach to any emergent themes not identified using the conceptual framework.

The IPO research framework was predominantly used to organise the data. Prior to this, the IPO framework had informed the design of the data collection tools including the semi-structured interviews; online survey and focus group discussion prompts. This ensured coherence across the entire research design, from data collection methods, analytical processes, to the representation of findings.

The IPO framework as an organising tool

Initially, the three main themes of the research framework organised the data according to participants’ perceptions and understandings of, first, the *intentions* of the research study.

The second element of the research framework explored the *processes* involved in the project. These were categorised according to project participants’ interpretations and general experiences of and familiarity with using and engaging with the Welsh SLO model and, specifically, the LCL project.

The third theme from the research framework grouped data according to project participants’ expectations, reflections, and experiences of the very early and emergent *outcomes* of the project. These outcomes were defined in terms of the changes that project participants experienced because of engagement in the project. These included changes in practices, thinking and understanding of the strategies and practical tools used in the LCL Project and, where a link was made between this and the Welsh SLO model.

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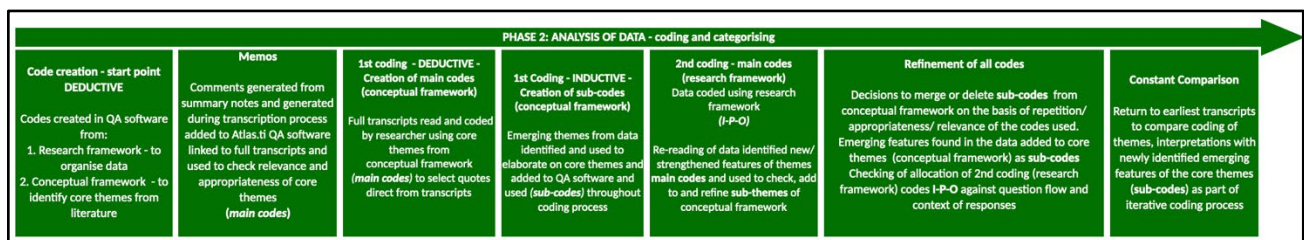
The decision to integrate the analytical process resulted in the two frameworks (IPO and conceptual) being applied deductively in the first phase of analysis to the data. Once the data was organised using the combined themes from the IPO and the conceptual framework, an inductive approach to data analysis was adopted.

This integrated and phased approach to data analysis was also applied to the large amount of data collected from the quantitative methods used in the study (the non-participant observation notes, online survey, focus groups and document analysis). This achieved consistency to the data analysis throughout the research.

By applying both deductive and inductive perspectives, the coherence of the research design was strengthened. This approach also ensured that the analysis was in-depth, providing a deep familiarity with the data from its collection, its organisation, and categorisation. This prepared the data for the second phase of coding and categorisation, discussed in the next section.

### Phase 2: Coding and categorising the data

Figure 13: Phase Two - coding and categorising data



The quality of the **coding approach** used in this research was checked against the adapted checklist, points #2 - #6 of Braun and Clarke’s 15-point checklist (2013) detailed below.

This resulted in the following responses to the adapted checklist.

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Quality assurance - the coding approaches

**#2** Data items created as part of the semi-structured interview process were afforded equal attention in relation to the analytical phases in the iterative analytical approach, inclusive of memos, open and closed codes assigned to all transcripts.

**#3** The coding process was thorough. 14 full transcripts formed the primary source of data, which was then systematically chunked into large sections for, initially, closed (deductive) coding and then specific sections/ excerpts were selected for open (inductive) coding. This was a cyclical process with frequent moves between the original data, the research problem, the frameworks, the sub-codes, and the selected quotes.

**#4** Main themes with relevant excerpts were collated, followed by a review of each theme and the selected excerpts to refine the selection, and ensure it successfully illustrated the features of each theme from the conceptual framework.

**#5** All codes were checked against each other (main codes and sub-codes) for repetition, overlap, relevance, and consistency and accepted, refined, or merged accordingly.

**#6** Codes and selected text were assessed for internal coherence, consistency and distinctiveness using data visualisation tools, spreadsheets, and references back to original data for constant comparison.

(Adapted from Braun & Clarke, 2013, p.287)

Deductive data analysis using both frameworks – closed codes

The initial phases of data analysis applied the two frameworks (IPO and conceptual) deductively. This managed, organised and initially categorised the large quantity of data as part of thematic coding analysis (Robson, 2011).

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This two-framework approach enabled the interpretation of the data from two perspectives and employed a cross-sectional analysis (Coe et al., 2017; Cohen et al., 2017; Creswell & Plano Clark, 2017).

First, the themes and ideas relating to the conceptual framework were aligned to the five main themes as the main codes. This identified the distinctive features of each of the main themes and generated sub-codes.

Second, the research framework (IPO) identified the stage of the LCL Project at which these themes were pertinent. This related to:

- (1) Intentions – the aims at the outset of the project
- (2) Processes – the methods and strategies used over the two years to deliver the project
- (3) Outcomes – the expected impact and change as a result of the project.

The quality of the **analytical approach** was assessed against Points #7 - #10 of the adapted 15-point checklist for ‘good’ thematic analysis (Braun & Clarke, 2013).

This resulted in the following responses:

Quality assurance - the analytical approach

**#7** The analysis has worked with the data, moving beyond description into interpretation and meaning making using two analytical frameworks and employing cross-sectional analysis.

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**#8** Moving between the frameworks and the data, selected extracts were checked against original context, the interview questions to ensure the data and analysis match each other to substantiate any potential claims.

**#9** Narrative threads are constructed from the analysis and visualisations make coherent and begin the process of logically sequencing connections between the selected quotes and the themes they illustrate.

**#10** Selected quotes are checked, extended, or reduced to establish a balance between the analytic narrative and the authentic voice of interviewees.

(Braun & Clarke, 2013, p.287)

The first step of the deductive analysis categorised the five themes of the conceptual framework as the main codes (**change, context, culture, leadership, and trust**). These were applied across the data as it was generated. This also reduced the data into large chunks for further analysis (*Figure 14*).

*Figure 14: Description of closed codes from the conceptual framework*

Closed codes	Description
Change	Leading change, change processes, resistance to change, agency, improvement, enabling, facilitating professional learning, school and system improvement and change. Capacity building and types of change: changes in practice, leadership, structures and how change is implemented and maintained over time. Changes affecting student progress and outcomes, indicators of change at organisational and system level.
Context	Wider national context and differences in regional and local school contexts reflecting geographic, socio-economic, and cultural differences within the system, also, specifically the impact/ influence of COVID-19, political and policy context.
Culture	Culture of organisation and system, how this affects practice, behaviours, and readiness to respond to change, pressure, learner needs etc. Prioritisation of professional learning

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	within schools and across all levels of the system. Willingness to engage and conditions of environment to support, enable and facilitate improvement and organisational, collective, and individual learning.
Leadership	Leadership of organisations, innovation and change at all levels of the system, within and between schools. How leadership is expected, invited, and driven, incidents of leadership being modelled at all levels of the system by all members. Process of decision-making, of approaches and strategies adopted by school leaders, aligned to agency and autonomy. Degree to which distributed leadership is embraced and encouraged across the system. How key messages are agreed upon, shared, communicated, and enacted. Leadership styles and leadership mindset at all levels.
Trust	Characteristics of trust implied or inferred from activities described such as collaboration, sharing practice and knowledge brokerage. Also trust between students and teachers and leaders and the influence/ affect it must empower, give confidence and promote a change in thinking ahead of change in practice at individual, organisational or system level.

The second step of deductive analysis applied the three elements of the research framework (IPO) as an organisational device. This categorised the data relating to both the Welsh SLO model and the LCL Project (*Figure 15*).

*Figure 15: Description of organising closed codes from the IPO framework*

Closed codes	Description
Intentions	Understanding and interpretations of the initial aims, expectations, and purposes by project participants
Processes	The mechanisms, resources, opportunities and support that international experts, system and school leaders and practitioners identified to enact change in their settings and as part of their role
Outcomes	Any individual, collective or system-wide indicators of change in norms, opportunities and/or behaviours identified by participants as either having occurred or expected to occur

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Adopting this deductive approach reduced and organised the large body of data. This step was followed by applying an inductive approach to the analysed data. This identified the distinctive features of the themes of the conceptual framework deriving directly from the data.

This approach had the reciprocal benefit of assessing the relevance and appropriateness of each of the five main codes of the conceptual framework. It refined the descriptions of the themes in the specific and distinctive context of the LCL Project.

Alongside this during both the organisation and coding of the data, the approach to data collection and concurrent data analysis benefitted from the integrated approach that applied deductive and then inductive analysis. This maintained an openness to new and emerging concepts directly from the data, with the opportunity to add and refine the distinctiveness of these features (Bryman & Burgess, 1994, 2001).

The research framework (IPO) was only applied deductively. This used closed coding to organise the data ahead of generating any interpretative codes (Bryman & Burgess, 1994). The IPO framework also prepared the data for further comparative, cross-sectional analysis (Mason, 2018).

As with the conceptual framework, there was a benefit to using the IPO framework at each stage of analysis. This was that it contributed three additional main codes of *'intentions, processes, and outcomes'* which were also aligned to the overall design of the research study and the selected data collection methods.

The IPO framework was used to inform the design of the data collection tools, and in particular, the structure and flow of questions in the:

1. Semi-structured interviews
2. Online survey design

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3. Focus group discussion prompts
4. Immersive field notes
5. Non-participant observation notes

Similarly, the IPO framework was used to undertake document analysis. This ensured full integration and consistency across all elements and all phases of the concurrent data collection and cyclical analysis. The IPO codes were also valuable in making specific sections of data manageable for comparative analysis. This therefore contributed to generating a *collective* narrative of project participants’ responses and experiences, organised into intentions, processes and outcomes.

Simple matrices were created to add depth to the analytical process and to quantify the data in integrated ways following the application of the conceptual and IPO frameworks.

Figure 16: Matrix identifying cross-sectional thematic links\* (sample - early phase analysis)

Research Framework	Intentions	Processes	Outcomes
Conceptual Framework			
Change	X		X
Context		X	X
Culture	X		X
Leadership		X	X
Trust		X	X

These matrices provided opportunities to make comparisons and contrasts across all data. They highlighted relationships between themes that were explored further in later phases of analysis. Visualisation was again used at this point as an analytical tool *in itself* (Bazeley & Jackson, 2013). This identified *individual* narrative threads and provided illustrative extracts (Braun & Clarke, 2013) as they emerged from the whole data set.



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Finally, by quantifying the data using the closed codes in the first phase of analysis, the frequencies, and specific instances of single and co-occurrences of codes were analysed across all data.

Following this, additional matrices were designed to analyse the sub-codes from the conceptual framework against specific elements of the research framework.

#### Cross-sectional analysis

By applying the two frameworks as analytical tools as part of a cross-sectional analysis at an early stage, it was possible to consider possibilities for the next iterative analytical phase (Bryman, 2016; Mason, 2018; Robson, 2011).

Transcripts from the semi-structured interviews were grouped into main code groups and into participant roles to identify initial links and connections at an early stage of the analysis. This identified relationships within and/ or across frameworks and document groups. With this, the document groups were compared using the frequency of theme occurrences (main codes) and the three elements of the research framework (IPO) in a variety of document groupings.

In applying both frameworks deductively in the earliest phases of analysis, the data was frequently re-read and cross-referenced. This deepened familiarity with the data, the research problem, the research questions, and the literature (Biesta, 2020; Bryman & Burgess, 1994; Coe, 2017; Mason, 2018; Robson, 2011).

This iterative, interactive process identified the early selection of quotes from the data by frequently referring to the two frameworks and their main codes. This resulted in a dynamic and responsive approach to the data analysis, allowing it to constantly, *“move back and forth between data analysis, interpretation and the process of explanation”* (Mason, 2018, p.228).

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The advantages of this approach were:

- application of the two frameworks in the first phase of analysis organised and reduced the data in a coherent and integrated way.
- the appropriateness and relevance of the main codes was clarified based on their deductive application to the data.
- the responsiveness of this cyclical approach made links from the original data to the literature.
- using the dual frameworks deductively ensured consistency across the research design from research questions, the research problem, methods, methodology to analysis and representation.
- coherence was maintained across the research from research problem, research questions, literature, concepts, and analysis by using the themes from the frameworks to design the data collection tools, select, and apply the analytical approaches and representations of data
- continuous comparisons and refinements of quote selection (editing, refining or changing coding) promoted “*active epistemological thinking*” (Mason, 2018, p.184), and maintained the philosophical underpinning of the research design and decision-making.
- the relationship of the codes to each other and between and of their sub-codes were regularly assessed and quality-checked
- tentative links were made in every phase of analysis between the selected quotes to the research problem, research questions and the conceptual framework which were strengthened through frequent interrogation.
- cross-sectional analysis was possible owing to constant comparisons of that data organised using the IPO framework with the main codes of the conceptual framework, leaving space and opportunities for new themes to emerge.
- the data collected using the pragmatic mixed methods design was fully integrated during all phases of the analytical process.

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- integrated data lent itself to analysis using data visualisations that related responses from groups of participants against the two frameworks deepening familiarisation with the data and strengthening the emergent findings.

Inductive data analysis using the conceptual framework – open codes

The second phase of data analysis used inductive (open coding) analysis. This added detail to the five main themes – the main codes – of the conceptual framework and generated detailed sub-codes. The further detail and exemplifications of the themes reflected by the sub-codes were generated directly from participants’ authentic experiences and understandings of the project (Johnson & Rasulova, 2016).

The first phase of inductive analysis generated distinctive characteristics of the five main codes from the conceptual framework (*Appendix 4 - 4.9 Samples from data code book (analogue)*).

These characteristics informed the creation of sub-codes directly from the data using a grounded theory approach (Cohen et al., 2017; Holton & Holton, 2008; Rieger, 2019; Robson, 2011).

The sub-codes were then clarified and reviewed according to the context of their original data source. This standardised their application across all the data. The refinement phase of inductive analysis was beneficial in reducing the large number of sub-codes and ensuring they were accurate, distinct, and representative of the emerging themes in the original data (Bryman & Burgess, 2001; Holton & Holton, 2008; Robson, 2011; Silverman, 2011). This refinement process also allowed for constant comparison and clarification of the sub-code descriptions and checked the accuracy of their designation to the original data.

This second phase of inductive analysis resulted in the merging, redefining, deletion and/ or re-designation of some of the sub-codes. Having completed this phase of the analysis, the

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mechanisms for the cross-sectional analysis were established. This enabled the data to be cross-referenced and directly compared. This commenced the process of crafting a coherent narrative of the study over time.

The sub-codes were identified and defined as they emerged from the data and visualisations were used to clarify, refine, and merge or delete them as part of the cyclical iterative analytical approach (*Appendix 4 - 4.10 Early phase working visualisations (a) - (g) of main codes and sub-codes*). The sub-codes added further detail and depth to the five main themes of the conceptual framework. This also ensured that the selected data was appropriately linked to the sub-codes and ensured that the sub-codes were:

- (1) accurately connected to each respondent
- (2) anchored to the respondents’ individual context and perspectives
- (3) used participants’ own language and terminology as part of the data categorisation process

(Bryman & Burgess, 1994)

This approach therefore honoured the authenticity of participants’ voices. It included the nuance and specific terminology of their individual responses to the universal and consistent questions and prompts used (Ritchie & Spencer, 2001).

Conceptual framework – developing and refining cross-sectional sub-codes

The sub-codes were derived inductively using an iterative abductive analytical approach to ensure connections were made, reviewed, and refined throughout the analytical processes (Mason, 2018). This was applied to the systematic cross-sectional analysis so that, “...an analytical mechanism for moving back and forth between your intellectual puzzle, your research questions, and your data, so that you develop your indexing codes through this iterative and interactive process...” (Mason, 2018, p.203).

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The analytical mechanism selected for this research therefore *reflected*, although was not *purely*, a grounded approach (Braun & Clarke, 2013; Glaser & Strauss, 2017; Robson, 2011). The sub-codes were generated, “*on the basis of “what is there in the data”*” and the “*ongoing interpretation of them*” (Mason, 2018, p.203).

The first phase of inductive analysis generated a total of 74 sub-codes, with an average of just under 15 codes per main code. The next phase of inductive analysis reduced the number of sub-codes to finalise them and ensure that the sub-codes were, “*systematic and workable in true cross-sectional fashion*” and where they could be, “*standardized and consistently applied*” (Mason, 2018, p.204) to result in a meaningful and coherent analytical approach. From this point, cross-sectional analysis coded the data using the main codes from both frameworks and the sub-codes only from the conceptual framework. These were mapped and cross-referenced to identify the nature of the themes and the relationships between the concepts and elements of the frameworks emerging from the data.

This clarification process also determined first, the inclusion criteria for quote selection and second, the refinement parameters to improve the clarity of the definitions of each of the sub-codes.

In summary, this iterative, cyclical analytical approach employed a continuous process of clarification and refinement of the sub-codes. This increased familiarity with the original data and strengthened links between the research questions, the research problem, the literature, and the data.

#### Code-refinement

The sub-coding was further checked by assessing the codes against the following checklist:

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- **Ordinary themes** – expected themes drawn from the conceptual and research frameworks (CLOSED CODING – DEDUCTIVE APPROACH)
- **Unexpected themes** – surprising themes emerging directly from the data (OPEN CODING – INDUCTIVE APPROACH)
- **Unclear themes** – ideas that don’t align to the frameworks or could be allocated to more than one theme within the frameworks (INDUCTIVE APPROACH)
- **Major and sub-themes** – major ideas and minor ideas used to expand the definitions of the codes and sub-codes

(Adapted from Southampton Education School, 2012)

This checklist was beneficial in analysing the multiple emergent themes and reducing these using constant comparison and exploring whether the codes could be considered either in their own right or in relation to each other (Braun & Clarke, 2013). This was important when integrating the application of the conceptual and research frameworks.

Although integrated in the analysis, the two frameworks had two distinct functions.

First, the research framework was only ever applied deductively to the data. It was predominantly used as an organising device to:

- (1) prepare the data for comparison and cross-sectional analysis
- (2) to trace any development in the narrative of the project over time

The integral nature of the IPO framework in the design of the data collection tools also maintained the coherence of the research between the methods, the research design, and the analytical processes.

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Second, the conceptual framework was applied initially to analyse the data deductively. This forged links between the data and the central ideas that had emerged from the literature.

A deeper analysis resulted from applying the conceptual framework using an inductive approach. This approach further strengthened the coherence of the research by establishing conceptual threads across the study, from the policy context and the literature to the data. Themes therefore emerged directly from the data as a result of the selection, design and application of this active and iterative inductive analytical approach (Braun & Clarke, 2013).

The process of crafting and refining the codes established a series of narrative accounts and provided further insights, illuminating the conceptual themes. Furthermore, the sub-codes were refined either by merging or rejecting them, according to (1) their ability to stand alone from each other, (2) avoid repetition and (3) their distinctiveness (Robson, 2011; Silverman, 2011).

The refinement and crafting process was aided by visualising the relationship across the data (Berends, 2011; Geisler, 2017; Nuttbohm et al., 2009). Visualisations were generated by combining the capacities of the visualisation software in Atlas.ti, the presentation software of Apple Keynote and Microsoft Excel, alongside multiple paper-based visualisations and sketch notes.

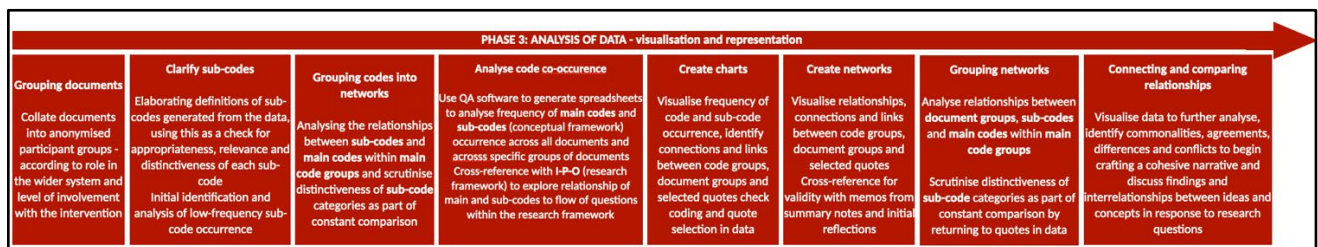
These visualisation strategies were integral to the research at every stage, and not only in the final phases of analysis. For example, the creation of a visual representation of the conceptual framework, its relationship to the context of the LCL Project and its ability to create a bridge between this and thereby establish the rationale for the selection of the methodology and methods.

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The integrated elements of the research were also clarified in visual diagrams and provided a working reference point for the research questions and made links back to the research problem. This identified how, and to what extent, threads of meaning and concepts developed in the LCL Project during the analytical processes and how these in turn led to the findings and discussion in the final two chapters of this thesis.

### Phase 3 - Representing the data

Figure 17: Phase Three - visualisation and representation of data



Network maps of code groups were created in Atlas.ti to visualise the relational links between the main codes and sub-codes in both the research framework and the conceptual framework (*Appendix 4 - 4.10 Early phase working visualisations (a) - (g) of main codes and sub-codes*).

This assessed the accuracy and appropriateness of the sub-codes that had emerged directly from the data to describe the distinctive features of the main codes in the context of the LCL Project, and therefore, the themes in the conceptual framework.

The assessment of the accuracy and appropriateness of the sub-code descriptors resulted in refinements to the sub-code descriptors, the sub-code groupings, and the sub-codes themselves. Selections of quotes were also assessed at this point to ensure their relevance and authenticity. Further refinements and accuracy checks were applied to re-allocate the main and sub-codes in this phase of analysis.



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The cross-sectional analysis applied the main codes from the conceptual framework (**context**, **change**, **culture**, **leadership**, and **trust**) and cross-referenced these with the three main elements of the IPO research framework according to the following steps:

1. Code co-concurrence of *intentions* from the research framework and the five main codes from the conceptual framework with associated sub-codes
2. Code co-concurrence of *processes* from the research framework and the five main codes from the conceptual framework with associated sub-codes
3. Code co-concurrence of *outcomes* from the research framework and the five main codes from the conceptual framework with associated sub-codes
4. Code co-concurrence of the three main elements of the research framework were mapped against explicit mention of 14 Parameters tools from the study intervention

Visualisation *as* analysis

Steps 1-3 (above) were undertaken using visualisation methods to represent the data.

Although the visualisation was helpful in identifying the sub-codes' frequency of occurrence in relation to the main code of **context** from the conceptual framework, in its first version, the result was a complicated and inaccessible visualisation map (*Figure 18*).

Further analytical steps were applied to this working version of the visualisation, with a view to simplifying it into a final accessible and presentation form. The steps taken included cross-referencing the main theme with the three elements of the IPO framework to generate three separate tree maps.

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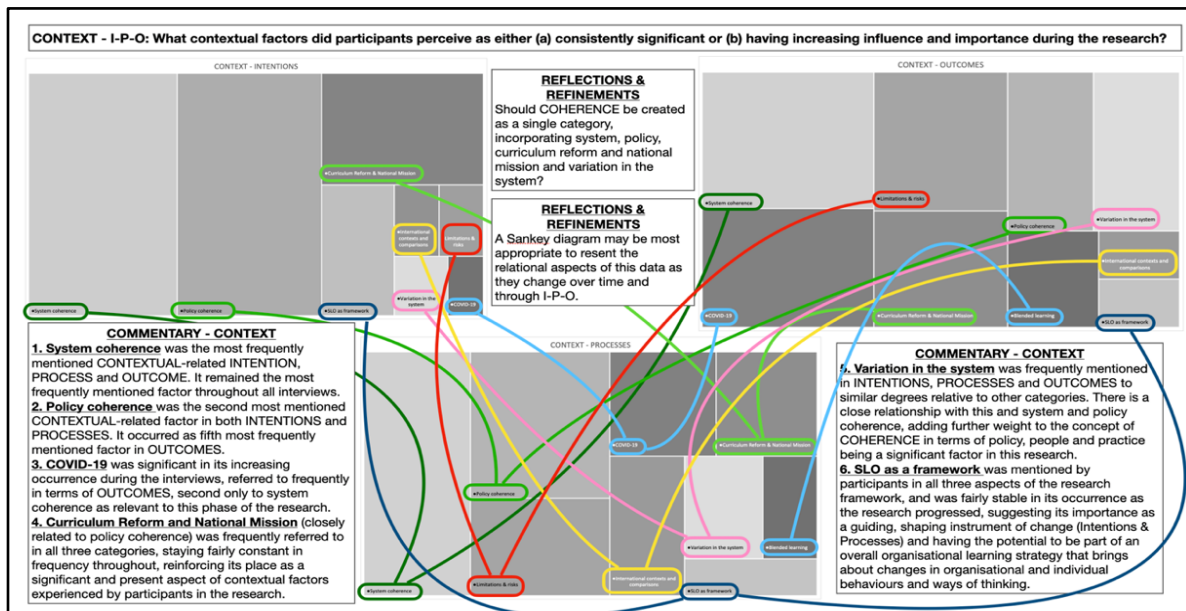
In the next step of visual analysis, the frequency of the sub-codes within the main theme of **context** were listed in order of occurrence under each of the three IPO framework elements.

A separate presentation software programme (Keynote by Apple) was then used for the next steps in the visual-analysis process. Charts were imported from Excel workbooks and added to one slide. This allowed direct comparisons between the IPO framework elements and the five main themes of the conceptual framework to be made.

Finally, and in this working version, adding to the complicated end-product, connecting lines were then drawn between the sub-codes. This showed how their occurrence either changed or remained the same in relation to the I-P-O framework elements.

These sub-codes were colour-coded in the hope of aiding the reading of the visualisation and therefore accurately representing the data.

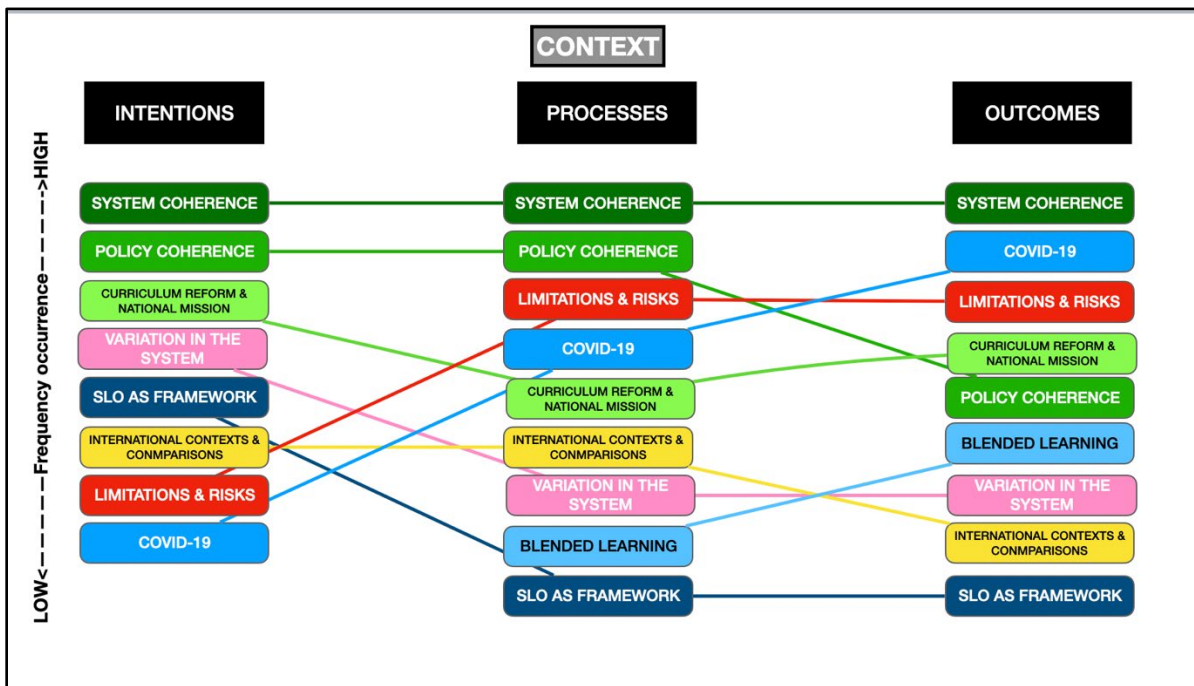
Figure 18: Visual- analysis map of **context** (cross-referenced with I-P-O) v.1



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Steps were then taken to improve the representation of the data. One slide per main theme was created, the tree maps were removed, and the result was a model that identified the direct connections between the sub-codes with the colour-coded connecting lines (Figure 19).

Figure 19: Sample visualisation map of CONTEXT cross-referenced with I-P-O v.2



This approach was fundamental to this stage of analysis as it clarified the connections between the emergent themes and identified how and to what extent these themes were related (Bazeley & Jackson, 2013).

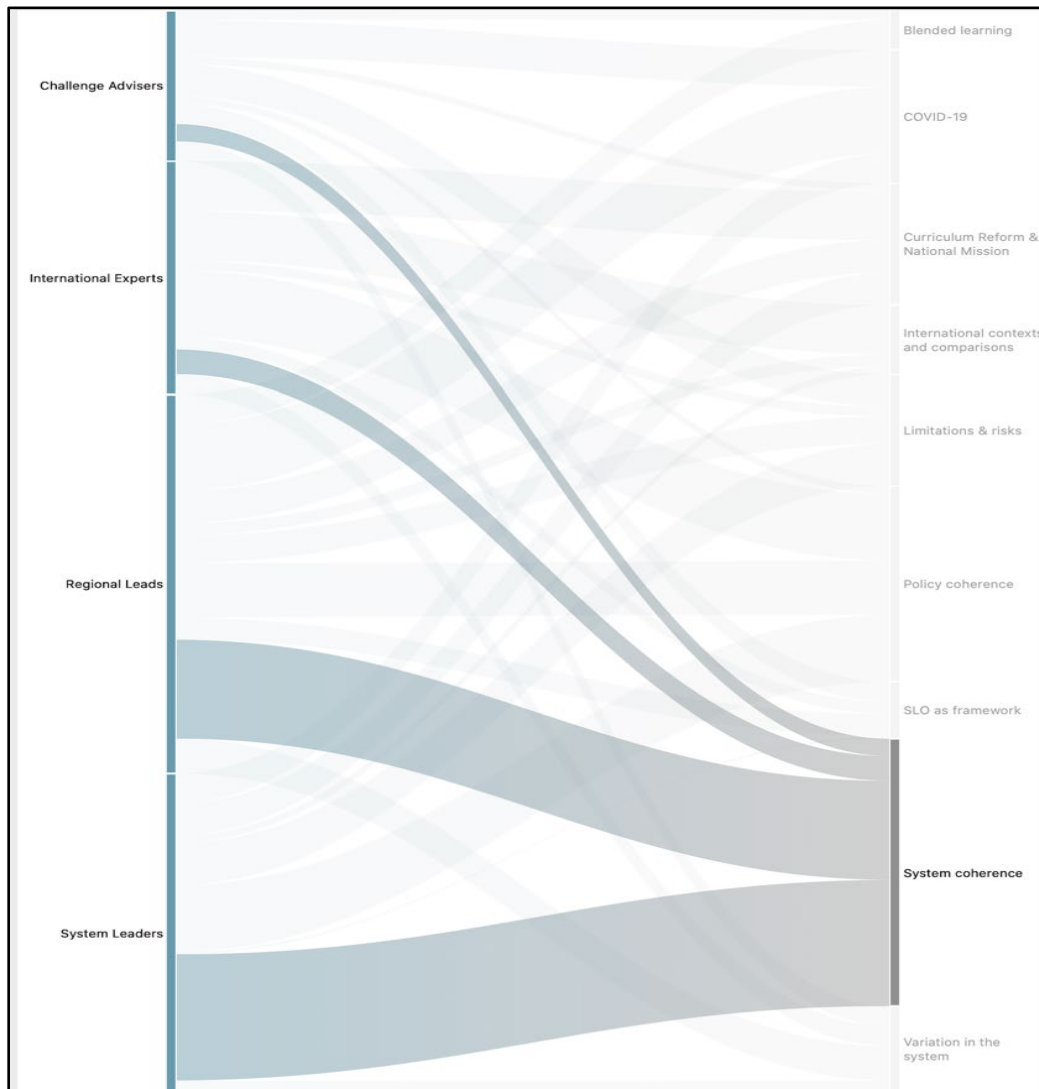
The sub-codes were also listed in rank order. This identified changes in their frequency within each of the IPO framework elements. This model was successful in representing the data as it was accessible, easy to read and offered the audience ways to interpret and engage with the material, despite the large amounts of data it represented.

This visualisation approach was used for all five of the main codes and the associated sub-codes to apply cross-sectional analysis between the two frameworks.

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The final visualisation strategy allowed the cross-sectional analysis to move out of the specificity of the individual codes and sub-codes of the conceptual framework and engage with the data set as a whole. The Atlas.ti software programme was returned to at this point as part of the systematic analytical approach. Sankey diagrams were used to analyse the ‘flow’ (Nuttbohm et al., 2009) of narrative threads across the IPO framework to each of the sub-codes from the conceptual framework (*Figure 20*).

*Figure 20: Commonalities - participants’ responses coded against CONTEXT highlighting frequency of occurrence of the sub-code of ‘system coherence’*



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First, Sankey diagrams were created using sub-codes in their pre-refined state (all 164 codes). Second, following this refinement process, new Sankey diagrams were generated with refined sub-codes.

The interactive function of the Sankey diagrams in Atlas.ti identified the frequency of occurrence of sub-codes with direct links to selected semi-structured interview data. Commonalities and differences across the study participant group responses could be seen once they were mapped against both the main codes and the sub-codes from the conceptual framework.

This visualisation integrated the data and the conceptual themes and sub-codes into one graphic to construct a coherent cross-sectional illustrative and narrative thread. This enhanced understanding, honoured the authenticity of project participants’ voices, and strengthened coherence across the research design.

## Chapter summary

This chapter has described the data analysis processes employed in this research in two parts.

It opened with the rationale that underpinned the selection of the analytical approaches adopted and included in this the decisions relating to how the data was prepared, organised, and represented.

The second part of this chapter detailed the phases and the steps taken in the integrated, cyclical approach applied to the analysis. The coherence of the research design is exemplified in the integrated approach to analysis, the application of the conceptual framework and the use of the IPO framework to organise and compare the data.

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The IPO framework also contributed to identifying the experience of **change, context, culture, leadership, and trust** expressed by project participants’ experiences of the project as it progressed over its two-year duration.

In summary, this chapter has demonstrated how the research remained firmly located within a social constructivist and critical realist paradigm. This directly informed, first, the selection of methods for data collection discussed in the previous chapter and second, the integrated and phased analytical approach applied to the data presented in this chapter.

The next chapter presents the findings from the application of these analytical approaches.

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## Chapter 5 – Findings

### Introduction

This chapter presents the findings from the data analysis discussed in Chapter 4. This analysis resulted in 7 key findings. The structure of this chapter is represented as an overarching map (*Figure 22*).

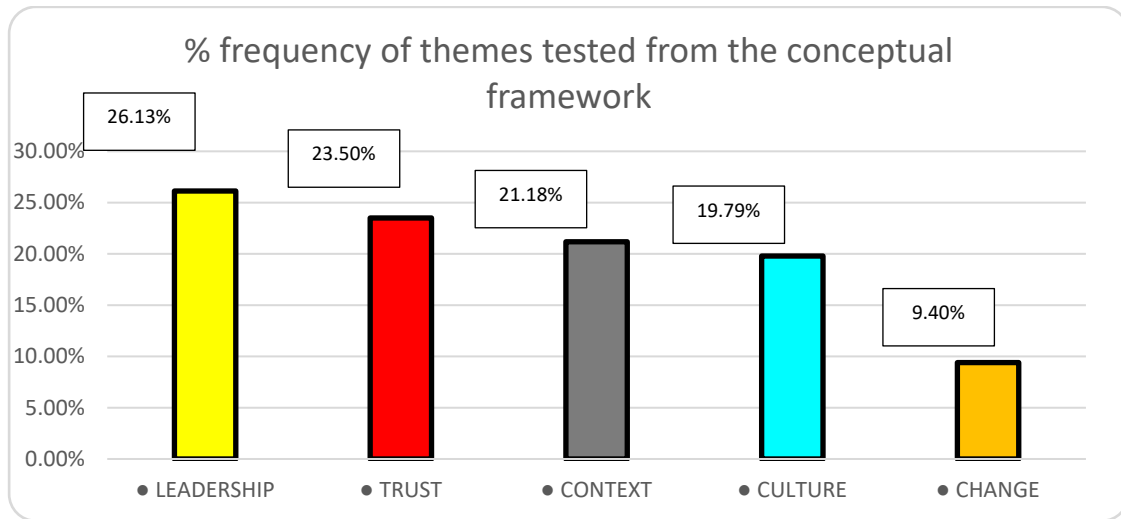
Each of the 7 findings is presented in its own section which opens with a specific ‘findings map’ for each individual finding. This provides a visualisation illustrating the distinctive features of the finding and to provide an aide memoire for the distinctive features as they are presented in the section.

The order of the first five findings presented in this chapter are related to their prominence in the data, measured by the frequency of their occurrence (*Figure 21*).

- (1) **Leadership** - *system leadership and learning practices*
- (2) **Trust** - *relational trust*
- (3) **Context** - *system-wide contexts*
- (4) **Culture** - *project culture*
- (5) **Change** - *change processes*

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Figure 21: Prominence of 5 themes from the conceptual framework across all data



Two other findings emerged inductively from the data. These were two distinctive types of expertise:

(6) **Instructional** Expertise

(7) **Implementation** Expertise

This chapter argues that the distinctive features of the five system conditions (Findings 1-5) were established in the LCL Project’s culture and context. These features resulted directly from the LCL Project’s collaborative design, its content, and the delivery methods of the training sessions. Furthermore, the processes and modelling of change leadership, system leadership practices and strategies promoted high levels of relational trust. These were all distinctive features of the system conditions identified during the LCL Project.

At the same time, the design of the LCL Project prompted a consideration of the presence and role of two forms of expertise (Findings 6 & 7). The development of these two forms of expertise was evident in the underpinning design principles, the planning and remote rehearsal



An exploration of “Schools as Learning Organisations” as a catalyst for school and system change

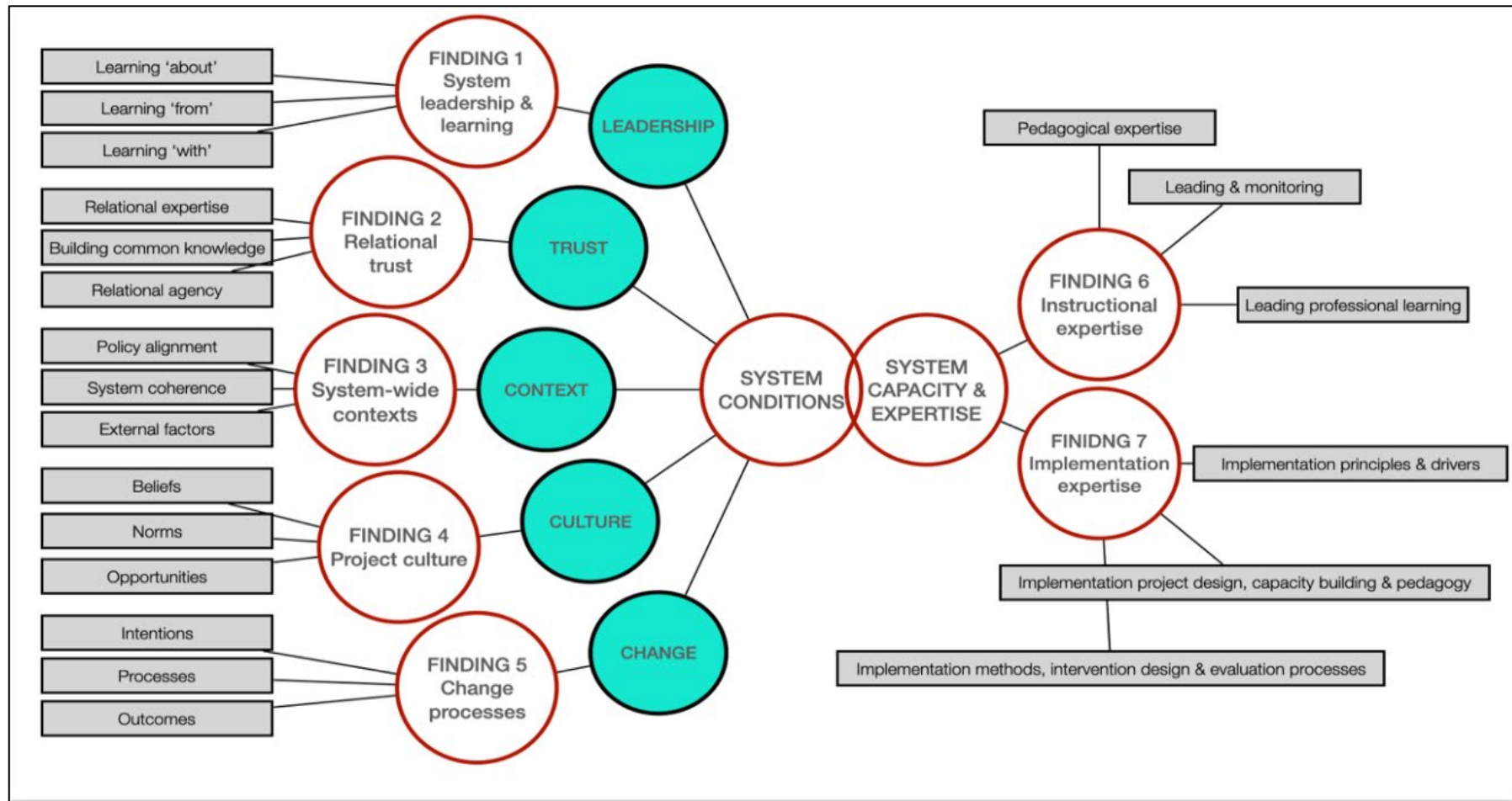
sessions and in the in-person and remote training sessions. As a result of the deliberate development of these distinctive features of expertise, system capacity was increased.

This chapter argues that the LCL Project actively nurtured the five distinctive features of system conditions whilst concurrently developing the two distinctive forms of expertise evident in the data. This resulted in increased the capacity and capability to move knowledge sustainably and consistently around the system. As such, the LCL Project provided a blueprint for an effective implementation model for the Welsh SLO model to be a catalyst for school and system change.

A graphic overview of the details of each of the findings presented in this chapter follows next in this chapter (*Figure 22*).

An exploration of “Schools as Learning Organisations” as a catalyst for school and system change

FIGURE 22: OVERVIEW OF FINDINGS EXPLORED IN THIS CHAPTER - MAP



## Findings 1-5 – System conditions

The five themes, each with their distinctive features are presented in this chapter as Findings 1-5 of this research. These were identified as the ‘System Conditions’ evident in the project. They are presented in this chapter in the order of dominance in which they were evident in the data.

Chapter 2 described how the five themes of **change, context, culture, leadership, and trust**, were identified and prominent in the literature. These generated the conceptual framework integral to this research. Following this, these themes were first tested in the data deductively and then again, tested inductively.

The deductive analysis initially confirmed the *presence* of these five themes and from this, identified the *extent to which* they were evident in the data. The inductive approach further identified the characteristics and the specific nature of these five themes. These were the component parts and distinctive features of the ‘System Conditions’ evident during the LCL Project.

Findings 1-5 therefore, determined that each of the five themes was significant, and demonstrated distinctive characteristics that provided new knowledge unique to this research. The distinctive nature of these system conditions in the LCL Project provide an original contribution to knowledge of this thesis.

## Findings 6 & 7 – System capacity

Two further findings, findings 5 and 6, emerged entirely inductively from the data. These were two distinctive forms of expertise, categorised as ‘System Capacity’. Because Findings 6 and 7 emerged directly from the data, they are, in their entirety and in their own right, an original contribution to knowledge.

Furthermore, when combined, the distinctive features of Findings 1-5 (the system conditions) and Findings 6 and 7 (system capacity), make an original contribution to knowledge.

## Overview of the findings – conceptual and emergent themes

An overview of the seven findings each with their distinctive features are presented below.

### Finding 1: System leadership & learning practices → Conceptual theme: **Leadership**

This finding highlights the distinctive nature of leadership practices evident in the LCL Project data. Features of leadership practices *predominantly* evident in the immersive professional learning experiences in the design and delivery of the LCL Project.

Three distinct forms of system leadership and learning practices were evident. The distinctive features of these practices were,

- 1) **Leading and learning *about*** other practices within and beyond the system, and *about* other school and system leaders
  
- 2) **Leading and learning *from*** other practices within and beyond the system, and *from* school and system leaders
  
- 3) **Leading and learning *with*** other practices within and beyond the system, and *with* school and system leaders

### Finding 2: Relational trust → Conceptual theme: **Trust**

The distinctive features of trust prominent in this study were evident in the relational trust in the core delivery team, both *by* and *of* each other. This was also reflected in the trust of the system leaders in the core delivery team between them and their project schools and of

the core delivery team in the training *processes, content* and *practices* explored in the professional learning model designed for the project.

Relational trust was also strongly demonstrated by the system leaders in the project cohort in the *expertise* of the external facilitator. The distinctive features of relational trust were organised into Edwards' (2010, 2012; Edwards & Daniels, 2012) conceptualisation of relational trust. These were,

**1) Relational Expertise** - this was most strongly evident in the core delivery team i.e., regular meetings took place between the project team members and with the external facilitator in-between the formal training sessions. This created frequent opportunities over a sustained period for all team members and the external facilitator to listen to each other, share ideas and insights and develop the 'team-ness' of the core project team.

**2) Building common knowledge** – this was evident in the instances and actions that built *common knowledge* within the team i.e., project team members from different regions sharing progress updates and practices from their own teams and their project schools when they met for project team planning meetings and training sessions. In addition to this, the co-planning and co-delivery design of the immersive and experiential professional learning model contributed to building common knowledge across the project cohort.

**3) Relational agency** – actions that reflected increased collegiality were identified where project team members contributed to the opportunities to co-design, co-construct and co-deliver the training sessions i.e., in the in-person sessions, system leaders were invited to lead elements of sessions and work with their project schools, to learn together and, more markedly, over the course of the ten live webinar sessions (January - July 2021). This reflected increases in both the technical confidence of the project team members and their familiarity with the project content. The data noted instances where project team members worked directly with the external facilitator to actively refine and contextualise the design, content,

and delivery of the training sessions, particularly during the remote delivery sessions.

Finding 3: System-wide contexts → Conceptual theme: **Context**

The importance of the influences of the multiple contexts and complex contextual factors in the system during this study cannot be overstated. The multiple contextual influences featured local, regional, national, social, health, economic, organisational, technological, and political contexts. These contexts were experienced as a collection of individuals, organisational and wider environmental factors, some, although not all, specific to Wales.

The scope of this study did not allow for the full range of these contextual factors to be analysed in detail. To address this, the factors were defined as three related and distinctive system-wide contexts. The frequency of occurrence of these three influencing contextual factors were identified and analysed as features of the wider system conditions in which the project was located. These three contexts were analysed in terms of,

**1) Policy Alignment** – how the project was connected to the project work to the wider policy landscape. How policy alignment was addressed across the wider system to communicate both the aims and the relevance of the project to practice.

**2) System coherence** – how the aims and design of the project were shared to connect system and school leaders and facilitate system-level collaboration across local, regional, and international boundaries. How the project promoted coherence across the teams, organisations and schools working across the three Tiers of the Welsh education system.

**3) External factors** – how unexpected external events and the subsequent unprecedented disruption affected all levels of the system within which this project was located. How the resulting emergent, unfamiliar, and uncertain external factors and circumstances influenced the progress and momentum of the project.

These three system-wide contextual factors individually and collectively had a significant influence on the project design, its delivery and, ultimately, the professional learning experiences of the study participants.

Finding 4: Project culture → Conceptual theme: **Culture**

The distinctive features of culture found in this study related to the influences of a range of organisational cultures within and across the system and the establishment of a single culture by the project itself.

These features were used to analyse the organisational culture of the project and the extent to which the culture of the project facilitated the movement of knowledge around the system.

Several features of organisational and team cultures were used to analyse the data. These informed how the project mobilised and disseminated new knowledge (principles, ways of working, practical tools, and leadership practices) to, within and between single teams, project schools and across the wider system. The frequency of occurrences of these three features of organisational culture in the data identified the extent to which the design and delivery of the project mobilised knowledge around the project cohort. The three features of organisational culture were,

**1) Beliefs** – the understanding held by individuals and organisations/ teams of the purpose and nature of teaching and learning, and any theories of action designed to improve these.

**2) Norms** – the typical and accepted ways of working, interacting, and behaving in and with individuals, groups, teams, organisations and across the wider system.

**3) Opportunities** – the projects, structures and systems that emerged from the beliefs and norms that established time and space where interactions for new ideas, knowledge and practices could be exchanged, tested, and developed.

These three features of organisational culture were used to analyse and identify the organisational culture of the project itself. These features were reflected in the thinking, decision-making and actions involved in the delivery of the project at a system-wide level.

Finding 5: Change processes → Conceptual theme: **Culture**

The distinctive features of change identified were centred around the school improvement processes. These were underpinned by the 14 Parameters framework and practical tools that accompanied the project training and resources. This fifth finding highlights these three interrelated features within an overarching narrative of change,

**1) Intentions** – rationale for the project to stimulate and sustain change and improvement through a system-wide professional collaborative learning and school improvement project.

**2) Processes** - the design and delivery of practical approaches and tools to lead change as part of leading and learning about change.

**3) Outcomes** – proxy indicators of change aligned to the project *intentions* and *processes* within and across the system.

Finding 6: Instructional Expertise → Emergent theme: Expertise (1)

**1) Pedagogical expertise** – up-skilling individual teachers, school and system leaders in pedagogical practice as ‘expert pedagogues’.

**2) Leadership and monitoring of pedagogical expertise** – leading change and improvement through monitoring and modelling effective pedagogical practice within individual schools and across the wider system as ‘teacher leaders’.



**3) Leadership of professional learning** – designing, embedding and delivering accessible and relevant professional learning opportunities for all staff both within and between schools and organisations as part of a repertoire of system leadership and learning practices

Finding 7: Implementation Expertise → Emergent theme: Expertise (2)

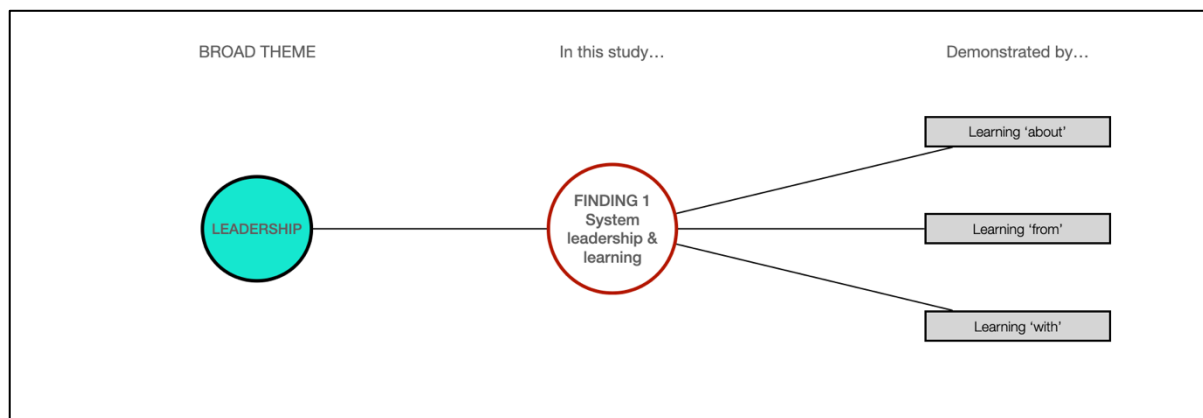
**1) Implementation principles and drivers** – the ‘why’ of the implementation processes, the rationale, intentions, and drivers of the intervention/ programme/ policy.

**2) Implementation principles of project design, capacity building and pedagogy** – the ‘how’ of the implementation design principles that focus on how to build capacity and facilitate sustainable change.

**3) Implementation tools, methods, intervention project design and evaluation processes** – the ‘what’ to use and adopt in both the implementation processes and intervention projects, including what outcomes to measure and what impacts to look for in both the implementation processes and the intervention project itself.

Findings 1-5 - System Conditions

Finding 1: System leadership and learning practices



Data show evidence of the conceptual theme of **leadership** in the form of distributed system leadership and learning practices throughout the LCL Project. This was evident in the analysis of supporting documents, pre-reading materials and resources and explicitly identified, modelled, and deliberately developed in the delivery of the project.

System leaders engaged in multiple opportunities to lead and learn concurrently. This was evident in the coordination, design, and delivery of the LCL Project, and the leadership practices shared and modelled during the in-person and remote training sessions, and the remote planning and rehearsal sessions.

System leaders experienced real-time, immersive, and experiential professional learning during the LCL Project training sessions and in the leadership practices exemplified, modelled, and made explicit by the external facilitator.

In coordinating, supporting the LCL Project school teams and co-delivering parts of the project, system leaders engaged, exemplified, and modelled their own leadership practices with their project schools and in their own teams. This first finding identified both system leadership *and* learning as one coherent and distinctive leadership practice within the system condition of leadership practices evident in the LCL Project.

There were three distinctive features of the system leadership and learning practices evident as a system condition in the data. These leadership and learning practices included opportunities for system leaders to,

(1) learn *about*

(2) learn *from*

(3) learn *with*

During the LCL Project, system leaders worked in and across the system to lead change, design and deliver professional learning, and support school improvement. These three features are detailed next.

(1) Learning *about*

As a system condition, **leadership** was evident in the frequent opportunities for LCL participants to learn *about* classroom, school improvement, professional learning, and leadership practices in international settings, as well as those beyond local and regional boundaries. An example of the NPON from one of the remote training sessions captured this as,

*Clip shared about leading this work from Australia – Consistent, Persistent. Insistent approaches – all form Clarity text.*

*Clear about your vision and need to be really strong on this – maintain your focus on purpose*

*(NPON - Live Webinar 2)*

This feature of leadership practice was evident when first, system leaders listened to and leaned *about* the experiences and insights of individual teachers and leaders from different project school teams, from their own regions and beyond. They learned about the different settings, practices, and contexts of fellow project participants by focusing on ways to lead

and design professional learning, to monitor teaching and learning practices and to lead organisational change,

*...I think we need to ensure that the voice of practice comes through and that it's not this top down ...delivery but...actually ...it's informed by those that are out...doing the work"*

(Wider System Leader 02)

The modelling of these leadership practices to learn *about*, and *from*, other schools and settings was a core intention of the LCL Project,

*I think this project, from its inception had two main goals and, at least from my perspective and one of those was deepening thinking and practice and sort of learning from other networks for want of a better word, and learning from other countries and learning from the wider sort of experience which obviously is one of the dimensions of Schools as Learning Organisations ...but it also had a very strong leadership focus to it and the concept of modelling leadership, the concept of that shared vision to drive professional learning that allows you to...achieve that vision, all of that is wrapped up in this project...*

(Wider System Leader 02)

Consistent modelling of learning *about* by the external facilitator, the deliberative discussions during the in-person training sessions and during the remote cross-regional planning and development meetings, system leaders enhanced their existing knowledge-sharing acquisition practices. This was established as a system condition resulting from an intentional design element of the project,

*...what I've been trying to do is model the processes that I would expect the leaders and school leaders to model...So, for me the modelling is around always starting with data. Always setting operating norms. Always having the learning intention.*

(External Facilitator)

The training sessions explicitly demonstrated and modelled knowledge-sharing approaches for system leaders to learn *about* different practices and contexts. This feature of system leadership and learning established a safe, professional learning culture, where system leaders were frequently invited to add their own insights on the materials, tools, and approaches,

*...when I'm thinking about these processes, I'm thinking about professional learning sessions for teachers and leaders. These are the components – the processes...and then the discussion at the end of every session... ..'What are our next steps? Who's going to champion what? What will be the date?' You know...an action plan... and then there has to be integrity on part of the leaders who lead professional learning sessions to come back to ...next steps homework at the beginning of the next session and then continue the data, the operating norms and... for me the operating norms...are setting that culture of learning – that expectation of how we're going to respect and treat each other. And so that's the ...integrity piece...*

(External Facilitator)

System leaders (Regional Leads and Challenge Advisers) were directly engaged in the in-person training sessions and worked and learned alongside the LCL Project school teams and other system leaders during these sessions.

During the in-person training sessions, project participants were grouped in cross-local and regional teams. This facilitated discussions and provided opportunities to collectively reflect on the training content and approaches. This also provided the space and time for system and school leaders to develop thinking and share this back to the external facilitator and with the wider cohort,

*[There were]... lots of people doing some really innovative...things around how they were capturing progress ...understanding progress collaboratively – not one teacher doing something that was working but, you know, five teachers all using the same approach with one pupil on a particular skill and then seeing that skill grow and*

*understanding the power of the collaborative effort ... the schools I heard in their homework\* talking about that in week 2, that was really quite a powerful process...*

(Regional Lead 02)

[\*Homework was the term specific to the LCL Project for the tasks undertaken between the training sessions]

During and between the in-person training sessions, system leaders participated in, led, and facilitated discussions with their own and each other's project school teams,

*We got out to the schools as well... We visited all 10 schools in the project ... we went out and met with them, talked about week one, what they learnt, talked about the homework that was expected... and just those basic face-to-face meetings I think, helped to establish an understanding of what the project was trying to achieve...*

(Regional Lead 02)

This was noted frequently in the immersive field notes generated in Training Week 2 (*Appendix 5 -5.2 – Immersive Field Notes –Excerpts from summary notes from in-person training sessions*). Discreet sessions were included in the in-person training weeks. Here again, project participants learned about the “voice of practice” from LCL Project school teams and system leaders. They gained and built new knowledge from the insights and practices shared from a variety of contexts and settings. This dedicated discreet time for all participants to learn about different schools, practices, contexts, and settings across the wider project cohort

*...we had one school as well that was taking on sort of looking at research ...in more depth as well and just talking about research-informed practices and about pedagogy and I think that was something they were... doing anyway but I think ...the [name] project has helped and ...one school have a...[session]... where they talk about learning and they talk about research and I think that's this project that's helped that along as well.*

(Regional Lead 01)

This feature of system leadership and learning to learn *about* other contexts and experiences was evident in the explicit opportunities to amplify of the voice of practice. This was a distinctive feature of the LCL Project (*Appendix 5 – 5.3(f) In-person training sessions*).

The importance of ensuring practitioners and leaders could learn *about* the practice of others continued to be emphasised when the training was delivered remotely. Here, the less interactive format of live webinar sessions included explicit modelling and opportunities for input and sharing by the system leaders (*Appendix 5 - Non Participant Observation Notes (NPON) Rehearsal and Live Streamed Webinars*) and, through them, from the project schools,

*Hearing all RLs\* voices...It's so important for people to see you leading this work – it's your work, not mine.*

(External Facilitator – Webinar rehearsal 6)

[\*RL = Regional Lead]

*I really enjoy hearing the voices of all my colleagues in Wales who are supporting the work in schools.*

(External Facilitator – Live streamed webinar 6)

*...[my] intention has always been to highlight you as leaders – hearing your voices and making those connections, it's not about me – it's about you leading this work.*

(External Facilitator – Live streamed webinar 7)

## (2) Learning from

Modelling system leadership and learning practices to learn *from* the wider system was a feature of system leadership and learning in the in-person training sessions. This was also

evident in the core text (Sharratt, 2019a), and during the remote rehearsal and live webinar sessions.

This emphasis on learning *'from'* was referenced in the semi-structured interviews,

*...we could argue that all our headteachers sit in that middle tier because they should be making those much higher-level decisions on behalf of ...the system that they... represent...the openness of learning from each other and sharing and collaborating...*

(Wider System Leader 02)

*...I thought that was a real eye-opener and I could see a lot of schools shifting towards ... that model for their...peer-to-peer learning walks and talks as well, rather than ...top down. I think just that idea of learning from each other and having that discussion in a really positive way...*

(Regional Lead 04)

System leaders adapted and developed their own practices as they learned *from* the different perspectives, insights, interpretations, and implementation approaches of the practical tools shared by project school teams and other system leaders from different settings, contexts, and organisational cultures (*Appendix 5 - 5.2 – Immersive Field Notes – Excerpts from summary notes from in-person training sessions, (b) & (c)*).

The in-person training sessions in Week 2 of the LCL project provided system leaders with opportunities to learn *from* each other's leadership practices and apply and contrast it to their own. They enhanced their existing strategies of mobilising knowledge across the system and developed existing and new ways of establishing systematic approaches to practice-sharing and collaborative-thinking,

*...some of those main ideas starting to really embed in those pilot schools, and for me then, it would've been about extending and broadening the message ... and bringing on cluster schools to work with those what would've become our lead schools in collaborative learning ...and working with partners to share the practice that they'd experienced – that's how I saw it going before, you know ... that sort of roll-out...*



(Regional Lead 02)

This built a body of common pedagogical knowledge (capability) and shared approaches to leading the development of professional learning skills (capacity) in the middle tier of the system.

*...use those Case Management Meetings to really understand what... pedagogies [are] going on there that's making a difference", I suppose. So that everyone, in the system and not just within your school or within your department...but that the whole system can develop the children's capacity...*

(Regional Lead 02)

The external facilitator systematically assigned leadership and facilitation roles to the system leaders during the training days (*Appendix 5 – 5.3(c) In-person training sessions & 5.3(d) In-person training sessions*). This explicitly identified and modelled ways to distribute system-wide leadership practices through collaboration, co-facilitation, modelling, and co-delivery. This enabled system leaders to actively learn from the system leadership practices designed into the LCL Project,

*...what was really interesting about the project was the... it was this opportunity, it was the collaborative nature ... this idea that ...they were able to share their commonality if you like, so it's not just their challenge adviser telling them, it's actually 25 other schools' challenge advisers – it was that opportunity to collaborate in a school improvement journey...*

(Regional Lead 03)

Throughout the in-person training sessions, the external facilitator regularly asked system leaders from the project team to provide 'live' feedback from the mixed school teams (*Appendix 5 – 5.5 (e) In-person training sessions*).

This was deliberately intended to encourage participants to connect with and reflect on the knowledge shared, and contextualise it for participants to make the practical tools relevant to project participants,

*...what's the content and how it needs to be changed? What are the processes I'm going to use to get there – always on my mind – and...what's the expectation around application of this?*

(External Facilitator)

The planning and rehearsal sessions ahead of each of the live streamed webinars directly involved the project team to co-design and co-deliver the training webinars. This modelled, in real time, the distributed system leadership and learning practices of co-delivery, modelling and co-design as part of learning *from* each other and the knowledge shared (*Appendix 5 - Detailed excerpt from NPON Live Streamed Webinar*).

System leaders in the LCL Project delivery team learned *from* each other by sharing examples from their own local and regional school improvement and leadership practices,

*...we're trying to do two things – obviously, we're trying to support the schools that are part of the programme ...but actually, we're using some of the ... lessons and some of ...the research to shape our thinking more broadly about how we support schools...some of the strategies and things that we were doing were working in isolation...but what we're trying to do now ...so that not one individual isn't working separately from others...*

(Regional Lead 05)

The modelling and monitoring of this feature of system leadership and learning practice was an integral and distinctive feature of the LCL Project design and training pedagogy,

*...the processes are around 'model and monitor'...those are my two favourite words ...but they need to model...where this fits into the big picture of school and system improvement – schools as learning organisations. So, what I've been trying to do is*

*model the processes that I would expect the leaders and school leaders to model, and then of course monitor follow-up, and that's I think where it kills us in education, we have all these great processes and ideas, and we never actually stay the course to get that continual monitoring.*

(External Facilitator)

The centrality of learning *from* the integrated elements of effective school-to-school and region-to-region collaboration prompted system leaders to reflect both on *how* system leaders worked and *what* system leaders did in their work to support schools,

*...I find [the external facilitator]'s approach far more practical far simpler and ... two of the schools have adopted it into their criteria, you know, for conducting learning walks, which I think is ...an indirect influence, isn't it? Because it's come from me through my work into those schools who are not part of the project ...and maybe that's the way to work it ..."*

(Challenge Adviser 01)

One of the in-person training days was highlighted by several project participants as a powerful and valuable learning *from* opportunity. System leaders reflected on how this training session caused them to think differently and, for some, to make changes to their own practice,

*...now, as a result of the training we then had, ...which was... so, so, valuable, with [external facilitator], we actually had a [system leadership training] day...we incorporated this into the ... training and the [system leaders] really, really took to it because they said, for once, they had something tangible that they could take with them ...and things you could discuss, and they absolutely loved it...*

(Challenge Adviser 03)

The same system leader went on to explain how the process of explicit *modelling* of system leadership and learning practices to actively learn *from* other settings and leadership approaches was something that all school leaders could embrace,

*...we decided ...that we would do it and every time that we did it...we agreed that leadership team would come with us, so that we would model it with them – not just us, but they would model it....”*

(Challenge Adviser 03)

The importance of establishing the system conditions where system leadership and learning practices facilitated opportunities to learn *from* the wider system was integral to the LCL Project. System leaders considered this feature of leadership practice to have the potential, as an established system condition, to build both capacity and capability in the middle tier,

*...capacity building, you know, I think that often what we miss is not just investing in school level leadership capacity but actually whether the schools have middle tier and national leaders...*

(International SLO Expert 02)

*...there’s something in every single leader in this country that is worth investing in, rather than us constantly looking for outside fixes. We’ve got people here who are brilliant, you know, let’s bring them on.*

(Wider System Leader 01)

### (3) Learning *with*

The third feature of the system leadership and learning practices evident in the LCL Project was its collaborative nature, to learn *with*. Throughout the LCL Project, explicit opportunities were designed for school, system leaders and teachers to not just *work* collaboratively, but to learn *with* each other, generating new knowledge because of the project.

The knowledge that LCL Project participants first, learned *about* and second, learned *from* each other was reflected upon, considered, and contextualised to generate new knowledge

and create alternative approaches and practices. These new and/ or alternative approaches were then adapted by participants to their existing practices or introduced as entirely new practices in their own teams,

*... we were using the five questions that ... [external facilitator] developed with ... learning walks and talks. We trained ... with the governors and we were starting to model that and...with all the CAs\* ...started developing little cards with ... [external facilitators]'s little five questions about asking the pupils, "What are you learning?" "Why are you learning this?" "How are you doing?" "How do you know?" "How can you improve?" and "Where do you go for any help?" ... So that was going really, really, well...*

(Challenge Adviser 03)

[\*CAs – Challenge Advisers]

*...it was more contextualised to Wales in Week 2 ..., which made a massive difference. Week one, we had some schools saying things like, 'oh, well, we do this already – we do this already'. We weren't necessarily looking at ...the big picture ...and looking at how ...all of these different strategies that they were using all fitted together, so maybe they were doing little bits of it here and there but not really using it as a whole.*

(Regional Lead 02)

One distinctive element of the combination of the three features of system leadership and learning practices was their distributed nature. This was essential to enable system leaders to learn *about, from* and *with* each other and the school project teams in the system,

*...you need a level of distribution to school level...you know, in saying this - I'm kind of assuming that we're talking about a level of school autonomy, school-based management that allows school leaders, ... encourages them to distribute leadership ... within the school certainly but which gives them sufficient decision-making rights in relation to curriculum, pedagogy, staffing and budget...*

(International SLO expert 02)

*I'd say is the learning walks and talks and the training [external facilitator] did with us in [school] on...how you carry out a much more formative feedback approach to teachers on ...their lessons through lesson planning – I think that...landed at exactly the right time when schools were already experimenting, for whatever reason, with... learning walks in a way that ...was really throwing out the old full hour lesson observation...*

(Regional Lead 02)

Also essential to the distributed nature of these features of system leadership and learning practices was the high level of relational trust between participants working at all levels of the system,

*It's all very well talking about distributed leadership and collaborating, but the reality is often a lot more problematic and complex but nevertheless, you know ... for a level of local...what do I mean? Kind of yes – collaboration, yes, genuine kind of high trust, high reciprocity, kind of professional learning ...all within a framework...*

(International SLO Expert 02)

For one system leader, these high levels of trust were generated from distributing leadership to facilitate learning *with* to empower those working across the wider system, regardless of their experience, roles or settings,

*...because the leadership is ...very much a delegated process and a distributed leadership ... it empowers ...staff who are keen to develop professionally and to increase ...their awareness and understanding of things that are out there now and it's giving them the freedom...*

(Challenge Adviser 02)

These features of system leadership and learning practices established the ideal system conditions for leaders to engage with research and generate new knowledge to support innovative practice,

*I think the danger with this project is that...they have to really engage with the research first to get a good, academic, you know cognitive understanding of it before they actually put anything into practice, that they've thought about it, reflected on it and then trial.*

(Challenge Adviser 01)

There were discreet opportunities for system and school leaders to learn *about, from* and *with* each other to adopt evidence-informed enquiry-based approaches,

*...and it's giving them the freedom to ...do some enquiry-based work, because those schools are empowering ...younger keen staff and also any staff who are keen to embrace any change or ...to go their own way – do some enquiry and share it back...*

(Challenge Adviser 02)

With this, system leaders talked about how they learned *with* each other and explored ways to lead the professional learning of others, to engage with research and develop the kinds of Culture of Enquiry' described in Dimension 4 of the Welsh SLO,

*...and that focus away from high stakes accountability ... and looking for problems and actually going round and saying, "What does this tell me as an instructional leader?". What I'm... picking up in terms of the learning walks and what's going on in classrooms, "What does this tell me in terms of the professional learning that my staff need?" ...puts everything back into the SLO agenda because you're talking about ...being research-informed and using enquiry.*

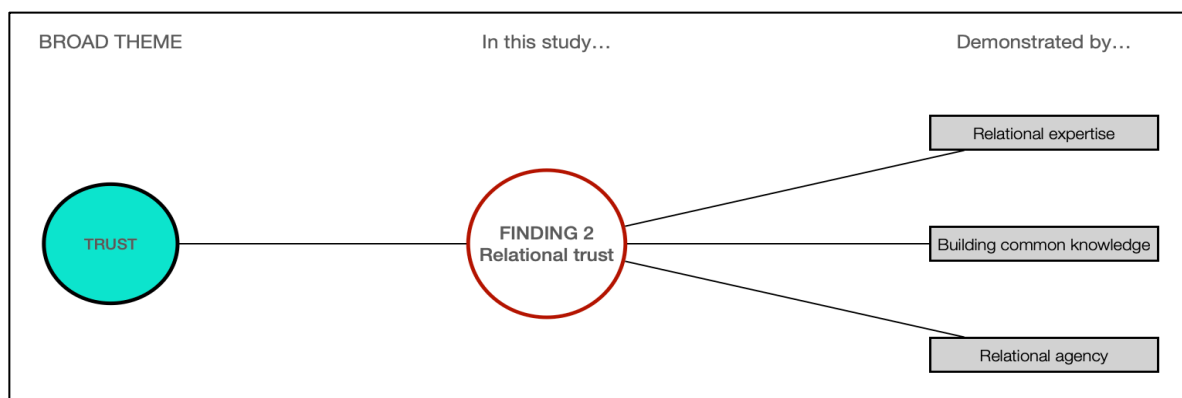
(Regional Lead 05)

Ultimately, one outcome of establishing system leadership and learning practices as a system condition during the LCL Project was the added value it offered for the learning experiences of children and young people. A system where opportunities are explicitly available for learners and practitioners to learn *about, from* and *with* each other was a system which, according to one participant, could also build children's capacity for learning,

*...So that everyone, in the system and not just within your school or within your department...but that the whole system can develop the children’s capacity so that all students, ...are good for everyone, not just ‘good for me’.*

(Regional Lead 02)

### Finding 2: Relational Trust



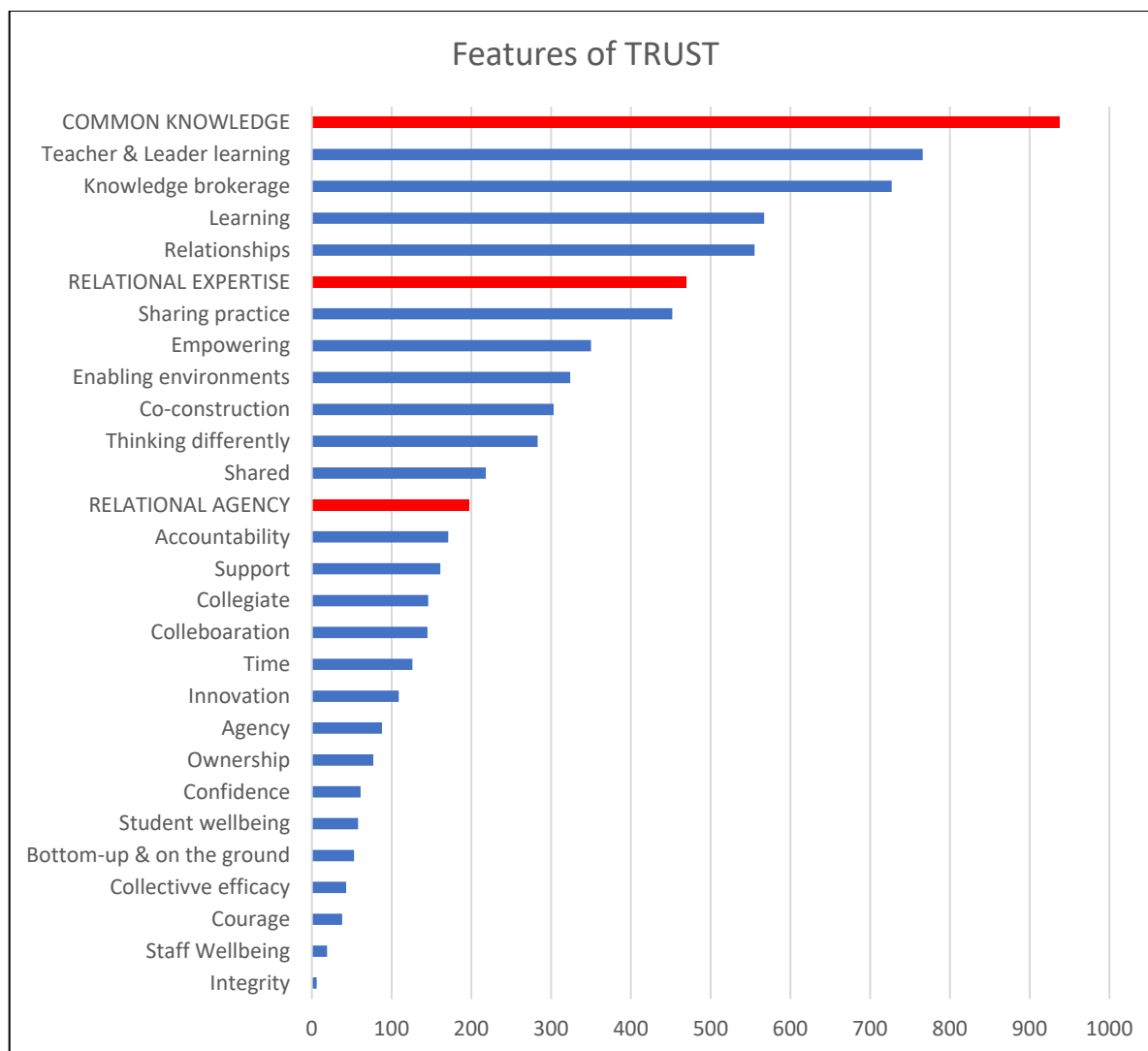
The second finding from this research data was concerned with the conceptual theme of **trust**. Specifically, in this research, this was *relational* trust. This research determined that relational trust, building on Edwards’ (2011) three-part definition of relational trust, was a system condition evident in the LCL Project. This resulted from the interaction of three distinctive features of relational trust,

- (1) Building common knowledge
- (2) Relational expertise
- (3) Relational agency

All three features were evident throughout the LCL Project and frequently occurred across the data (Figure 23). They are presented in the next section in the order of their frequency in the data.

FIGURE 23: FEATURES OF TRUST (ALL DATA)





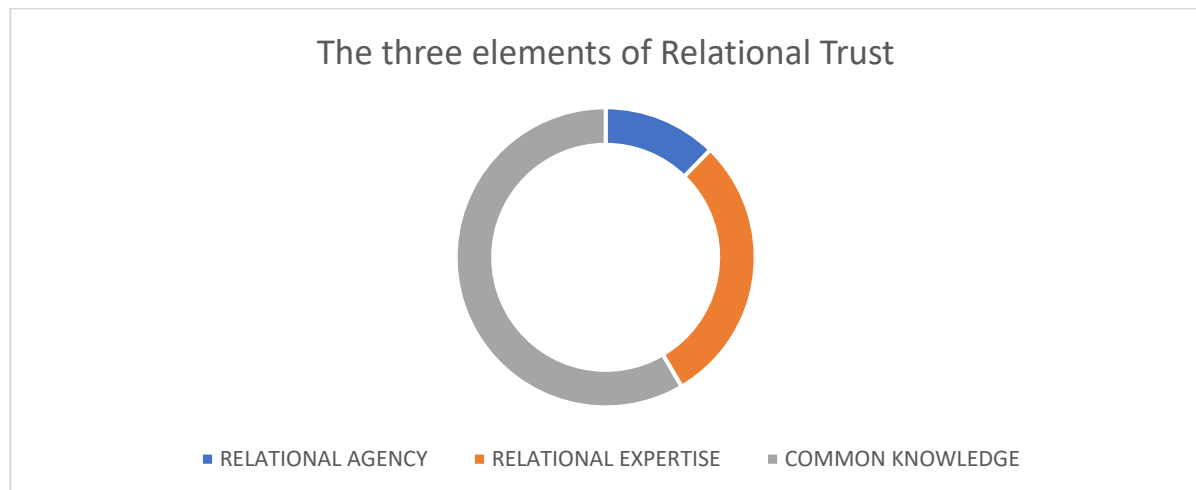
### (1) Building common knowledge

The activities in the in-person training sessions focused on creating opportunities for participants to learn from and across professional boundaries. This built common knowledge and, in turn, developed and established relational trust. Through these activities, participants learned about and from each other's' different contexts, practices, experiences, settings and from the different perspectives from the group members,

*...so, it's almost like a team of knowledgeable others and [the external facilitator], ... within the context of this project would be the lead knowledgeable other, but we need other knowledgeable others then to be able to maintain that momentum, so I think that's another key part that ... [the external facilitator] brought to the table – that concept of the knowledgeable other.*

Of the three interrelated elements of relational trust, instances of building common knowledge were most evident in comparison to relational expertise and relational agency (Figure 24).

FIGURE 24: FREQUENCY OF THE THREE ELEMENTS OF RELATIONAL TRUST



The activities focused on building common knowledge were integral to the high levels of relational trust across the groups, and particularly across the core delivery team (Figure 25).

The in-person training sessions included discreet and structured opportunities for system and school leaders to share practice, and for teachers and leaders to experience immersive, 'live-learning' learning.

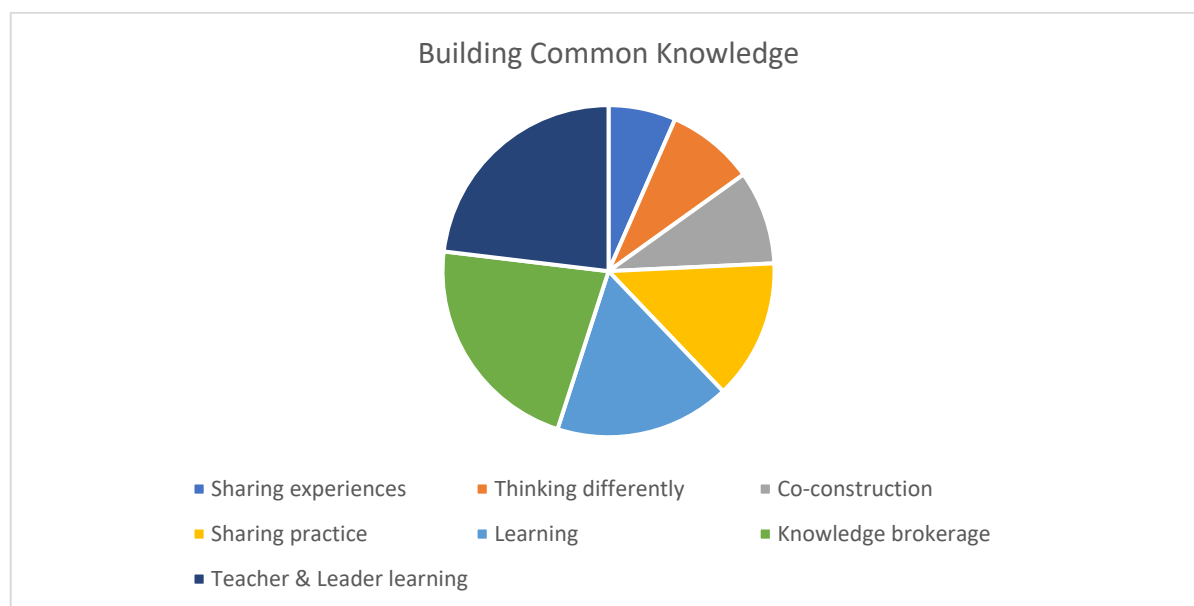
During the live streamed webinars, similar common knowledge building opportunities for the system leaders in the core delivery team were created.

For some project schools, common knowledge building started to take place between the in-person training weeks. This occurred when project schools, having learned about others' practice in the collaborative in-person sessions, established connections and visited other project schools, facilitated by their linked system leaders,

*... by the end of Week 2, we had schools who were then connecting with each other outside of the project, going up – we had a school from ...our region going up to [region] to see what was going on with the project ...*

(Regional Lead 02)

FIGURE 25: CONTRIBUTING ACTIVITIES TO BUILD COMMON KNOWLEDGE



Throughout the LCL Project, the in-person and remote training sessions were designed by the external facilitator and the core delivery team to broker knowledge from and across the system.

Specific strategies were employed that built common knowledge. These included the pre-exposure of course materials and resources to participants so they were familiar with them when they were presented to the wider project cohort. The co-design process of the training sessions ahead of the 'live' sessions further built common knowledge in the core project team. This increased their familiarity with the content, philosophy, and evidence-base of the materials and ran-through the structure of the sessions prior to their delivery. All these deliberate activities built common knowledge within the core project team and increased trust in both the content and the training process.

Building common knowledge was a reciprocal process. During both the in-person and remote training sessions, the external facilitator invited open discussions and critique from the core project team concerning the structure, flow, delivery, and content of the training.

Feedback was frequently sought by the external facilitator from the core team and wider cohort to contextualise the content of the training sessions. This ensured the materials were relevant and aligned to the wider policy context,

*... when I ... realised and examined and studied the ...document that had been written in Wales [1] was able to bring ...my own experience of working ... on Schools as Learning Organisations... So, what I offered was to revamp the next session and insert a huge activity for school teams to take a look at the 14 parameters and overlay Schools as Learning Organisations and it was...the highlight for me – absolute highlight – because of course, they mesh completely and... ...the resulting work from those school teams in both cohorts was really sensational... I learn and listen and really try to be here and feedback what people are saying and then integrate that into the sessions that I do.*

(External Facilitator)

In taking steps to explicitly align the LCL Project to its wider policy context, the confidence, expertise and, ultimately, relational trust across the project cohort and within the core project team was strengthened. This contributed to the capacity and capability-building processes of the project for system leaders to support the LCL Project school teams during the training sessions,

*...it was more contextualised to Wales in Week 2 as well, which made a massive difference. Week one, we had some schools saying things like, ‘oh, well, we do this already – we do this already’. We weren’t necessarily looking at ...the big picture ...and looking at how it ...all of these different strategies that they were using all fitted together, so maybe they were doing little bits of it here and there but not really using it as a whole.*

(Regional Lead 01)

The reciprocal feedback, insights, and focused input into the training sessions shared existing and generated new knowledge that grew trust in, first, the project processes and second, increased the relational trust across the core project team and project participants, as part of the distributed leadership perspective inherent in the project,

*It's not top-down, it's working from the ground up and it's having those discussions and I think that's the key ...it's getting people to understand that everybody has a part to play, and everybody values that all pupils can do well.*

(Challenge Adviser 02)

The modelling of leadership and pedagogical practices accompanied by the design of the experiential professional learning day also built common knowledge. This further strengthened relational trust and confidence in the content of the training itself,

*...it's important that people understand and are comfortable with the content of the programme, the content of the research – I think that'll be the most powerful part of the process for me and then what we would need to do ...in light of that ...is make sure that ... the individuals who are working with the schools are able to walk and talk alongside leaders too because that's what will make this sustainable in the long term ...*

(Regional Lead 05)

The impact of these common knowledge building activities supported the distinctive features of system leadership and learning in the LCL Project, allowing participants to learn *about, from and with* each other.

They were able to locate the training sessions in their own settings and within the wider context,

*...one of the things you have to interpret around was many of the examples and suggestions and videos and things and so on were from middle school... We were*

*able to take the ideas out from ... the examples even if they are of primary school – they're able to interpret around that ...it's always useful to see and hear the context you're working in.*

(Regional Lead 04)

The confidence and capability expressed by participants resulted from the underpinning principles of co-construction and contextualisation inherent in the wider system,

*...we're doing this by ourselves now and that personalised, real ownership of what they were trying to do with the work ... because they were on their own in that sense ... so I did see that increase in ownership over time. And...in some ways, is that what we really need as key impacts? ...as major outcomes from the project as a whole? ...you know, the concept of ownership, the concept of increased confidence, the concept of increased professional knowledge, concept of ... increased trust and increased collaboration and those are the things that I think we really need to have as an output of this project which are going to be useful in moving towards the new curriculum...*

(Wider System Leader 02)

This co-construction approach was reflected in the LCL Project. The training sessions explicitly modelled discreet knowledge exchange processes, which the project participants then replicated and established knowledge exchange systems as common knowledge building strategies in their own schools,

*...we visited schools where they showed us data walls ... that staff were sharing and discussing progress of learners in very short, sharp meetings... There was a shift in their meeting time that moved them away from administrative discussion to discussions about learning, so that...I think that was really powerful.*

(Regional Lead 02)

For the core delivery team and the external facilitator, the engagement in collaborative professional learning opportunities built common knowledge and strengthened their relational ties.

During the remote rehearsal sessions, for example, the external facilitator frequently invited the system leaders in the core delivery team to share their individual insights, make connections with each other and connect the content of the training with their own work. These explicit strategies were distinctive to pedagogy and design of the LCL Project (*Table 8*).

*Table 8: Trust-building strategies during in-person training, remote planning and training sessions*

<b>Trust-building strategies noted in non-participant observation notes from all planning and training sessions</b>
Consistent training structure to all training sessions
Training sessions model pedagogical approaches and skills
Pre-planned opportunities for input and knowledge-sharing from system leaders
Consistent expectations for input from system leaders during training sessions
Expectations designed into the project for 'gap tasks' between training sessions
Links and network opportunities available for project schools to build a project community
Open invitation for all project participants to share examples of practice from schools and teams
Offer of 1:1 and bespoke support for project schools between training sessions
Recap of key messages in previous training sessions to promote continuity
Links to overall training framework, core text and research throughout individual sessions
Shared leadership explicitly encouraged
Frequent re-visiting of shared aims and purpose of the project work
Relentless dual focus on developing pedagogical expertise and leading pedagogical expertise
Emphasis on system-wide improvements for all students, practitioners, school & system leaders

Building common knowledge was, therefore, a distinctive element of the high levels of relational trust and evident as a system condition during the LCL Project.

The third element of relational trust, ‘relational agency’ was generated from the common knowledge, combined with the deployment of relational expertise. Relational expertise is the second distinctive feature of relational trust and is discussed next.

## (2) Relational expertise

The relational expertise of the external facilitator, the system and school leaders and all the LCL Project participants, was critical to creating and holding the space to build common knowledge throughout the project.

System leaders were frequently invited to share their thinking and responses to the training sessions and project design. They worked with each other and with their school project teams to explore new material and related it to the policy context in Wales. In doing so, they shared their own insights, reflections and experiences of the external contextual factors influencing the system and the LCL Project schools.

The deployment and expression of relational expertise by system and school leaders and the external facilitator provided multiple opportunities for professional boundary crossing. This boundary crossing extended across geographic, contextual, organisational roles and contexts and was a distinctive feature of relational trust in the LCL Project.

The external facilitator employed relational expertise to establish connections with and between the wider system and school leaders in the design of the project, *“I’ve had an opportunity across many jurisdictions to work in states or provinces in the US, in Australia, in Chile ...and for me, the work in Wales absolutely enticing to work across a nation – I hadn’t done that before...”* (External Facilitator).

System leaders in the LCL Project were adept in employing their relational expertise to cross professional, contextual and geographic boundaries to connect and learn *about, from* and *with* each other,



*I think this project, from its inception had two main goals and, at least from my perspective and one of those was deepening thinking and practice and sort of learning from other networks for want of a better word and learning from other countries and learning from the wider sort of experience which obviously is one of the dimensions of Schools as Learning Organisations.*

(Regional Lead 05)

The relational expertise within the project cohort was evident in the formal and informal knowledge-sharing opportunities over the duration of the LCL Project, particularly in the in-person training sessions (*Appendix 5 - 5.1 Sample from immersive field notes – In-person training sessions*).

This was evident in five related but distinct professional boundary-crossing processes. These instances of boundary crossing were:

1. Relational expertise was employed across a diverse and complex set of contexts, experiences, and roles by both the external facilitator and the system leaders in the LCL Project. This resulted in system leaders sharing practices, working, leading, and learning together in and across their own regional roles and contexts, and with their own and each other's project schools to build common knowledge.
2. The LCL Project school teams and their linked system leaders were drawn from a diverse range of contexts across Wales and brought schools and system leaders to work together from the four regional consortia across Wales. Relational expertise was therefore evident in the interactions between the diverse project cohort. The project schools and system leader teams were from urban, coastal, rural, and diverse socio-economic communities and contexts.
3. The system leaders in the LCL Project core delivery team were drawn from the four Regional Consortia of Wales, each of whom brought with them expertise, experiences and insights from diverse contexts and multiple school and team cultures. Relational expertise was evident across the core delivery team in the co-design and feedback processes during the planning and training sessions.

4. The system leaders and the project school teams worked collaboratively in cross-regional groups during the in-person training sessions. This resulted in systematic and discreet opportunities for them all to learn *about, from* and *with* their own regional and local settings, teams, and contexts.
5. The LCL Project core delivery team comprised of the external facilitator, representatives from each of the four Regional Consortia, with central coordination, expertise and input, and representation and direct engagement from Welsh Government. This meant that relational expertise was deployed horizontally *across* regions, centrally *from*, vertically *within* the three tiers of the Welsh Education system and extended internationally, *beyond* the system.

Relational expertise was also evident between the external facilitator, the core team members, and the project schools (*Appendix 5 – 5.4 Non Participant Observation Notes (NPON) Rehearsal and Live Streamed Webinars*).

The external facilitator and the system leaders established open dialogue for project participants to ask questions about the training materials and processes. This meant that at the same time as the school project teams were developing their understanding of the project work, the system leaders were learning alongside them, and asked and answered questions that contextualised the training materials for each other and their school teams,

*...they asked us to ...how it fitted with the Welsh context – what is it, you know, how does it... all align, and we did some work around ...looking at the 14 parameters in the light of the SLO dimensions, in the light of the professional standards. And... once they could see the sort of...alignment of the circles, then it made sense...And I think that [name of external facilitator] really teased that out in week 2 when you had that activity where they were asked to align the professional standards, SLO, 14 parameters and they could see the synergy between the three models.*

(Regional Lead 02)

The external facilitator modelled high levels of relational expertise throughout the training sessions. This demonstrated how to build safe professional learning spaces for diverse groups of professionals from across the country so they could engage and learn together,

*...but there are so many more questions I want to ask her – she was lovely and she was very responsive to you as well, you know, on the days of training, [external facilitator] made sure it came back to the Wales element, so she...you know, adapted and she'd have a conversation with you at break time and she'd go, 'Oh [name] said this' and you know, even little things like... she'd spoken to me and the next day, she'd found a ... video – 'I've brought this in because it's my [LCL participant name] from [country], but I've given it for [LCL participant name] here.'...Little things like that, you know, but she was so personal, ... I think that's why we probably so valued her training so much really...I think, with time, she'd probably have the right impact here in Wales.*

(Challenge Adviser 03)

The external facilitator also used relational expertise when modelling the use of specific tools during the training,

*Because it was live... we were actually live modelling it...you know how you often have a training and it's on learning walks and it's 'this is what you would do'... but because we had [external facilitator] there and she split us all into groups and step by step, she took us through the Learning Walks and Talks process so the first one we went out just to evaluate the walls so the third teacher and ...she walked with us and we came out and had a conversation and then the next one, we went in and we went to the questions – we came out and we discussed...so I think it was the active – action modelling of it, so you felt confident going back because you understood and you'd learnt and had that chance to actually discuss with [external facilitator], with [external facilitator] and with other colleagues.*

(Challenge Adviser 03)

System leaders recognised the importance of the relational expertise of the external facilitator in the planning of the training sessions,

*And [external facilitator] has that in her delivery as well, doesn't she? ... She keeps things, I mean she's obviously super-prepared because she keeps them crisp and clean ...she's not a waffler...Even if there's an anecdote, the anecdote is planned, well, it seems to be planned for because it's – she doesn't go off at tangents, does she? There's... this sort of like, just this cleanness about the way ...she delivers the ideas and the repetition as well the language that she uses...so that it's almost like a mantra that you can't help but take on board...*

(Regional Lead 04)

The impact of this relational expertise provided a space for participants to critically reflect on their existing practice,

*...one of my supposed most, I think most powerful reflections in one of [external facilitator's] sessions was ... around learning intentions and success criteria because, I mean, in many schools, people will do them but ...they kind of do it in ...an almost arbitrary way... they haven't really thought about how that links to the curriculum in terms of intentions, they haven't really thought about that applies always... to those learners in their classroom at that particular moment in time, so the way that... [external facilitator] delivered that session, I think, ...really spoke to quite a few of our leaders...*

(Regional Lead 05)

Modelling and deploying relational expertise were integral to the 'knowledgeable other' role in the school improvement framework in the LCL Project to mobilise knowledge across schools and the wider system.

The employment of relational expertise to cross professional boundaries to learn *about*, *from* and *with* different contexts was a distinctive feature of the relational trust in the LCL Project. Relational expertise was integral to building common knowledge in the LCL Project.

Combined with building common knowledge, this stimulated and nurtured the relational agency of LCL Project participants. This is discussed as the third distinctive feature of relational trust in the next section of this chapter.

### (3) Relational agency

The third feature of relational trust identified in this research was identified as relational agency. For the purposes of this research, Edwards' (2007) definition of 'relational agency' was adopted,

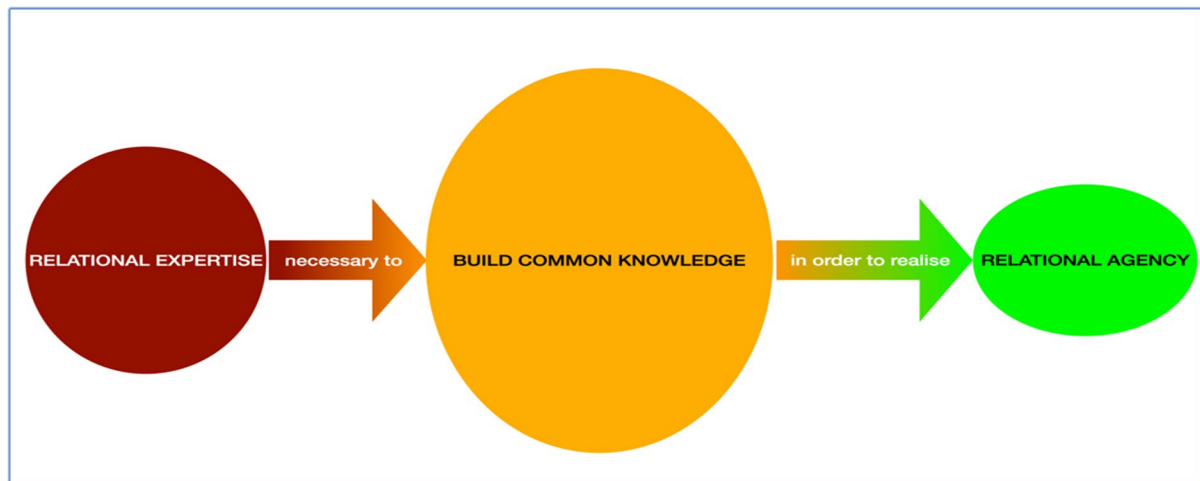
*Professional learning is therefore not simply a matter of induction, though induction into values and key skills is important. Professional learning needs to include a capacity for interpreting and approaching problems, for contesting interpretations, for reading the environment, for drawing on the resources there, for being a resource for others, for focusing on the core objects of the professions whether it is children's learning or social inclusion.*

(Edwards, 2007, p.14)

Of the three interrelated features of relational trust, evidence of relational agency occurred less frequently than the other two elements. The reason suggested for this is that relational agency was an *outcome* of a causal process or trust-building.

Here, relational expertise was deployed in the collaborative professional learning and boundary crossing of the LCL Project training sessions. This built common knowledge across the project cohort which, in turn, led to early expressions of relational agency (*Figure 26*). This research therefore suggested that the emergence of relational agency was predicated on the other two features of relational trust being actively attended to.

*FIGURE 26: SUGGESTED CAUSAL RELATIONSHIP BETWEEN THREE FEATURES OF RELATIONAL TRUST*



Limitations of the scope of this study prevented further exploration and testing of this suggested causal process, but it is a feature of the findings that would benefit from further research.

The immersive in-person training sessions were referenced by system leaders as building relational agency,

*...it ranks amongst the best professional learning that I've personally ever done in terms of the simplicity of the approach and actually the flip of saying learning walks and talks aren't about compliance, they're about learning and they're about finding out what's going on in our classrooms, what our learners understand, and you know...where...perhaps we need to support our teachers to improve – I think that, for me, will be the most important part ... of this process ...because what that then does is that then our ...staff in our organisation have got those skills and that knowledge to go and do that work with schools around sustaining that conversation about teaching and learning.*

(Regional Lead 05)

The collegiality and effectiveness of the core project team benefitted from the high levels of relational expertise, knowledge-sharing, and on-going commitment to the LCL Project established from the outset.

This was evident when faced with the disruption of COVID-19 across the wider system. The universal experience of COVID-19 galvanised the core project team and generated individual and collective relational agency. This was evident in the successful re-design and move to remote delivery of the training sessions (*Appendix 4 – 4.1 (d) Contingency webinars – rehearsal & planning and live streamed remote training sessions - data capture plan (January 2021 – July 2021)*).

During this latter phase of the project, when interactions had moved online, the external facilitator called upon the relational agency of the core project team. They were frequently invited to contribute, provide input, and lead sections of the series of ten live-streamed webinars (*Appendix 5 - Non Participant Observation Notes (NPON) Rehearsal and Live Streamed Webinars*).

Relational agency was evident during the remote planning and rehearsal sessions. The remote sessions necessitated far more frequent, regular contact between members of the core project team and the external facilitator than the planning for the in-person training sessions. This nurtured and sustained the collegiality and ‘teamness’ of the project team, as they developed their familiarity with the content and the remote delivery mode.

Ideas, suggestions, and contributions for the live sessions were frequently made by the system leaders in the core delivery team. System leaders also enacted their relational agency by working with each other outside of formal meeting times. They met to co-plan and co-wrote their inputs, selected materials and identified key messages to communicate.

They discussed what examples to include and ensured their contributions and insights were aligned both to each other, the forthcoming webinar session and with the wider policy context. Their relational agency was evident in the co-design and consensus-building behaviours of the team and in their follow-up actions with project schools to implement the work.

Without the high levels of relational trust and in particular, this distinctive feature of relational agency that emerged in the core project team, it is highly probable that the project would have faltered, faced with the significant disruptions of COVID-19.

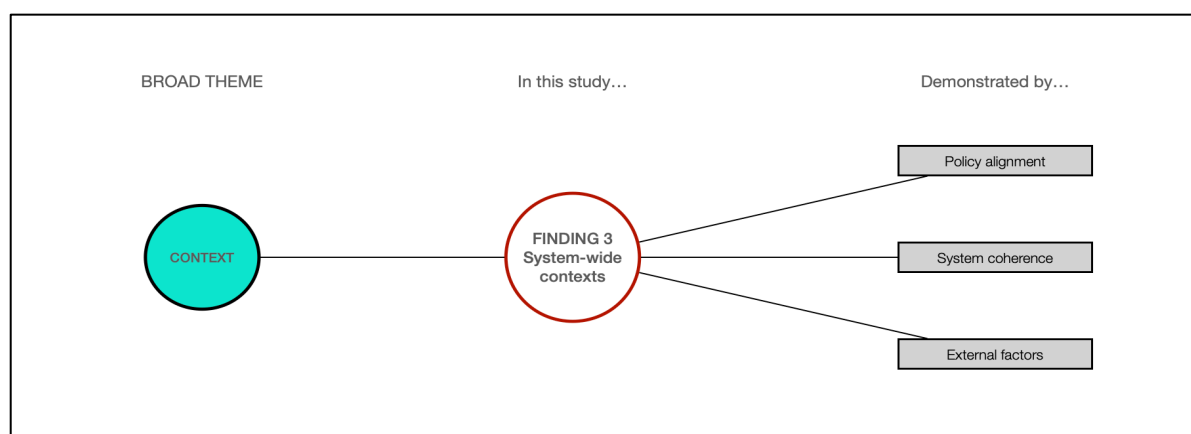
The LCL Project was designed with specific attention paid to nurturing relational trust. High levels of relational expertise were deployed in all elements of the LCL Project. This was evident in the in-person training sessions and in the interactions between the core delivery team during the remote rehearsal and live webinar sessions.

Explicitly nurturing the distinctive features of relational trust, by building common knowledge of, first, all LCL Project participant’s practices, regions, settings, contexts, and schools. Second, familiarity with the training pedagogies and materials also developed common knowledge by the participants, the core delivery team, and the external facilitator.

Combined, these features generated relational agency, the early indicators of which were evident in the collegiality of the core project team and the presentations of the four LCL project schools in the final webinar – the ‘culminating event’ (*Appendix 5 – 5.7 Detailed excerpt from NPON Live Streamed Webinar*).

Without establishing relational trust as a system condition within which the LCL Project was located, therefore, the momentum of the project would possibly have slowed, if not stopped.

### Finding 3: System-wide contexts





Finding three focuses on the conceptual theme of **context**. Three features of context were distinctive influences present as system conditions during the LCL Project (*Figure 27*).

Initially, two distinctive contextual influences emerged, (1) *system coherence* and (2) *policy alignment*. As the project progressed, however, a third contextual influence emerged, (3) *external factors*. The first two distinctive contextual influences in this project were defined as,

**Context 1: Policy alignment** – The extent to which individuals sought to and needed to connect the work of the project to the wider policy context. The data identified the importance of aligning the national policy context with current practice to ensure the aims and purposes of the project itself were relevant to those involved.

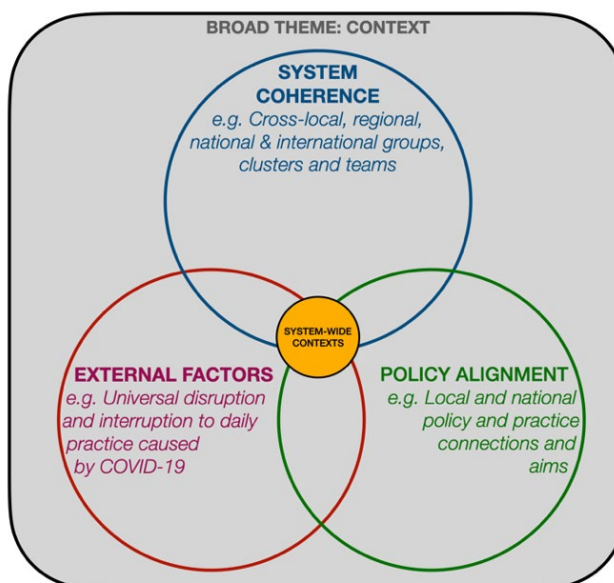
**Context 2: System coherence** - The way in which individual system and school leaders connected and collaborated with each other across local, regional, and international groups, clusters, and teams. This identified a collection of factors that influenced the typical operations of organisations and system leaders working across the wider education system.

The third contextual influence emerged directly from the occurrence of the COVID-19 pandemic.

**Context 3: External factors** – in this study, widescale disruption was caused by COVID-19. This had a significant impact on almost all aspects the project, including decision-making, participant experiences, project design and delivery.

The three contextual features were interconnected, influencing aspects of the LCL Project independently and interdependently of each other at various stages over two years (*Figure 27*).

*FIGURE 27: FEATURES AND INTERCONNECTEDNESS OF CONTEXTUAL SYSTEM CONDITIONS*



### (1) Policy context and alignment

The contextual influences of national policy on any system-wide change and reform processes, regardless of location was a factor,

*Another example is the Netherlands, who arguably have also done this quite well. Over there, it's a kind of supporting policy of the teacher agenda, which is quite an important and quite a major policy drive in terms of teaching, so here again, we're seeing it as enabling environments for the teaching profession and then of course, as a link to the curriculum.*

(International SLO Expert 01)

In the Welsh context, the wider policy landscape of the National Mission (Education Wales, 2017) was a feature of this finding. This was because, from its original inception, policy alignment was critical to efforts to realise the Welsh SLO model across the system and to achieve system-wide shared aims,

*I think that if you map the curriculum and the four purposes, many of these words actually align so nicely with the SLO model; the Welsh SLO model, so I actually think it's very much enabling and you can arguably say the same thing from the Teaching*

*Standards, so thinking from where we are now with the curriculum in Wales, what kind or type of teacher does it require? What kind or type of school does it require? I actually think there's a quite strong link between all three of them, which is of course, the ideal scenario.*

(International SLO Expert 01)

*...because if you don't have a system which has got a vision that is, everybody is driving to, you're never going to have coherent behaviours and coherent policies, so we have to go back to why we're doing what we're doing ...*

(Wider System Leader 01)

From the outset, the in-person training sessions for the LCL Project made explicit connections between the policies of the National Mission, the Curriculum for Wales, the Welsh SLO model and the National Professional Standards for Teaching and Leadership, with the purpose of the LCL Project within this national policy context.

The external facilitator worked with system leaders in the core delivery team to align these national policies and locate the project within its wider policy landscape, and particularly with the Welsh SLO model. This resonated with the approach when the Welsh SLO model was originally created,

*... So, in the policy area it has been taken forward, giving credit to the Welsh government they're really striving for policy coherence, so I think that's part of their success as well and, yeah, that's actually the journey.*

(International SLO expert 01)

The practical tools of the LCL Project were explicitly connected to individual school and regional settings. The school improvement approaches were contextualised to make them relevant to the specific needs of project participants,

*...how it fitted with the Welsh context – what is it, you know, how does it... all align, and we did some work around ...looking at the 14 parameters in the light of the SLO dimensions, in the light of the professional standards...*

(Regional Lead 02)

System leaders co-constructed their understanding of the aims of the LCL project with school teams by locating it in its policy landscape. Explicit links were made between the work that individual schools were undertaking in preparation for implementing the National Mission (Welsh Government, 2017a), specifically the ‘Curriculum for Wales’ (CfW), and the ‘12 Pedagogical Principles’,

*...the national policy, is it's all perfectly aligned – it all fits beautifully, but it's schools trying to move from a legacy system into a new system and being confident ...and supported to do that so I think that's where some of this work really ties in with the SLO, yes, with the professional standards – absolutely, but also, if you think about the new curriculum, I think ..., certainly a conversation we had with [external facilitator] ... was around actually, we should perhaps model some of this, these approaches used in the new curriculum. So, we should look at you know, what effective learning intentions, success criteria would be looking at, you know, the current approach to assessment set out in the Curriculum for Wales.*

(Regional Lead 05)

Explicit connections to the CfW and these principles were also made during the school-based system leader training day and, during the third live webinar session, an example of the 12 Pedagogical Principles from a local cluster of schools was used to exemplify the connections with the LCL Project.

Throughout the LCL Project, the school improvement work was framed as an opportunity to aid the implementation of the Welsh SLO model,

*...ultimately, my view is...and some individuals will already be thinking like this, but others won't ... but as a country, we need to change hearts and minds if we're going*

*to achieve the new curriculum, so there needs to be that transformation. In ten years' time if we walk into a classroom, into a school, what are we going to see? If we...you know, how will we know if we've been successful? And... I do think that if we walk in and we see something that's the same as what we've got now, then we've failed. So that really does involved transformation, that really does involve changing hearts and minds.*

(Wider System Leader 02)

One session in Week 2 of the in-person training weeks was instrumental in aligning the LCL Project to its policy context. During this session, links with the wider policy context were reinforced.

A specific activity was designed in response to the post session debrief the day before that sought to help project participants align the LCL Project to the wider policy context

*(Appendix 5 - Photographs of artefacts from in-person training sessions –*

*Alignment between 14Ps and Welsh SLO model & (b)*

*).*

This activity asked project participants to connect the 14 Parameter framework of the LCL Project with first, the Welsh SLO model and second, the National Approach to Professional Learning,

*...I think that [external facilitator] really teased that out in week 2...when you had that activity where they were asked to align the professional standards, SLO, 14 Parameters and they could see the synergy between the three models.*

(Regional Lead 02)

*...in that 2nd week, things were definitely sort of...the lights were definitely coming on – but, you know...it changed their thinking.*

(Wider System Leader 02)

*...I'm really interested particularly in the crossover between the ideas outlined in [Project Name] and where that sits with the ...work – how that aligns with the SLO model, because I think it does align beautifully, so it's a really interesting way to put the meat on the bones, I think, of the SLO model.*

(Regional Lead 02)

Policy alignment was important for system leaders' teams working with schools in a context of system-wide reform,

*I think from our perspective, it's building some of those ideas in as part of our way or strategy, because obviously you can't...do everything because it's just too much. I suppose the danger at the moment with ... kind of the national policy, is it's all perfectly aligned – it all fits beautifully, but it's schools trying to move ... into a new system and being confident ...and supported to do that so I think that's where some of this work really ties in with the SLO, yes, with the professional standards – absolutely, but also, if you think about the new curriculum, I think ... we should perhaps model some of this, these approaches used in the new curriculum.*

(Regional Lead 05)

By aligning the project with the wider policy context in this way, the system leaders accomplished three things:

- (1) they communicated the shared project aims to project participants
- (2) they communicated the relevance of policy to current practices in schools and in the Middle Tier teams supporting schools
- (3) they maintained the momentum of the project when highly disruptive and potentially derailing influences intervened

(2) System coherence

The collaborative design of the LCL Project affirmed the importance of coherence across geographical and organisational boundaries,

*So, for me, one of the things that would unlock the system and have Schools as Learning Organisations really get traction, is around that lateral movement, where school-to-school...sharing of improvement and working together...you've got open and honest discussions with no fear attached to them and for me, that process... we need it to be horizontal ...unless it is horizontal...you're not really going to get... schools really connecting up with one another efficiently. So, for me...that is a key part to the release mechanism.*

(Wider System Leader 01)

This collaborative design explicitly sought to create system coherence that was directed at benefitting all learners in all settings and contexts,

*...that the system and the mechanisms promoted in this work through this project allow for sharing knowledge about pupils, sharing expertise in teaching ...to improve the experiences for all learners and that comes from close collaboration, so it's solving problems for pupils rather than... each teacher working in isolation, I suppose, with contradictory strategies – it's joined up thinking – it facilitates joined up thinking.*

(Regional Lead 02)

The concept of the Welsh SLO model itself was a source of coherence for schools, organisations all working across the wider system,

*...my understanding of schools as...learning organisations is the fact that it is an umbrella concept, it's an overarching concept under which other policies should sit...[it] is a framework for the National Mission.*

(Wider System Leader 01)

The LCL Project tools and approaches were deliberately contextualised to bring coherence to the system in terms of supporting schools from the middle tier of the system and seeing where the project fitted,

*I think there's loads of... bits of work that we can do around this – as I say, it's definitely influenced us as a team but ...the important thing was we made sure all of our key people attended the sessions. I think if you don't attend the sessions, you don't hear [the external facilitator] speak, you don't look at the examples that she provides from a variety of contexts – you have to contextualise everything, don't you? But I think...from our perspective, our people ...and within our organisation, who have been and experienced it, certainly the ones that came and did the learning walks and talks with us ... it just, it just made sense to them, you know, in terms of their work and where it fits.*

(Regional Lead 05)

The Welsh SLO model also provided coherence within and between the project schools and across all organisations in the wider system,

*...but that for me is what a Learning Organisation within an individual school setting should look like and then that is... professional learning ...[a] piece of exploration that then should be amongst groups of schools, we should have HEIs hooked into this...*

(Wider System Leader 01)

System leaders and practitioners located the LCL Project in the wider system whilst directly connecting it with their practice,

*...it's helpful to the system because we're trying to ensure I guess a commonality of language, so that ...our leaders and our practitioners can understand where within all of this process various things are, so I think it's helpful for understanding and I*



*think it's helpful for getting buy-in on where....from the schools who are currently engaged ... because it then doesn't feel like something extra, or it doesn't feel like additionality it feels like... a complementary thing as opposed to an additional different thing.*

(Regional Lead 03)

The interconnectedness of the LCL Project with the Welsh SLO model was frequently referred to by system leaders. This reflected a synergy with their own practice and the systemic improvement efforts undertaken for and by all schools by applying the approaches from the LCL Project to have an,

*...impact on their development planning, so that they are using those elements of the Schools as a Learning Organisation model to become...a self-improving school system...*

(Regional Lead 02)

Following the move to remote delivery of the training sessions, the external facilitator emphasised the importance of demonstrating contextual sensitivity in implementing the work of the LCL Project. The system leaders in the core delivery team were frequently invited to make explicit links between the project, their own work, the work undertaken by project schools and the wider curriculum reform efforts as part of a coherent effort from everybody working at every level of the system,

*Hearing all voices...*

*We're all in this together...*

*It's so important for people to see you leading this work – it's your work, not mine...*

*Does everybody have something they can say on this?...*

*We're all leaders of this work...*

*What does it say about this in the Welsh Curriculum?...*

*Voices from leaders in Wales...*

*OUR new curriculum...*

*Question number 4 on the slide is particularly important for you in Wales...*

(Quotes from webinar rehearsal & planning sessions)

### (3) External contextual factors

The third feature of contextual influences emerged in the mid- and later phases of the LCL Project. These factors were external to the immediate project and related directly to the impact of COVID-19 and the disruptions it caused.

From the earliest phase of the LCL Project, the specific policy and external contexts were referred to. These remained prevalent in the design and delivery of all the training sessions,

*I found that particularly true in the assessment ...sessions that I think we said, or maybe I said, over and over, 'this is an opportunity to implement your new curriculum' because all of the assessment waterfall charts starts... with curriculum – starts with the learning intentions and ...the co-constructed success criteria and ... I felt that ...there was a feeling in the ...sessions that, ...people felt they could do this – they could see how the new curriculum would be supported by the... assessment literacy sessions...I think that ...was huge ...and ...really important for me to honour the new curriculum and ...say this is what it looks like in every subject area.*

(External Facilitator)

The impact of the external contextual factors of COVID-19, however, impacted on the research design and data capture timeline. The impact of COVID-19 first impacted on the LCL Project in March 2020. This continued to affect the progress, pace, and momentum of the LCL Project until its completion in August 2021. In addition, these factors disrupted both its design and delivery mode.

The semi-structured interviews with the international SLO experts took place at the end of 2019, in November and December, prior to the external factors of COVID-19 emerging. The remaining system leader interviews, however, were conducted between March 2020 and September 2020, as the impact of the contextual factors of COVID-19 were unfolding and the first National Lockdown was experienced across Wales. This period included the first wave of COVID-19 infections.

The impact of these external contextual factors necessitated the change in the LCL Project to remote delivery and re-design for the remaining training sessions. The remote rehearsal and live streamed webinar sessions took place between January 2021 and July 2021, still immersed within the context of COVID-19.

The external factors caused disruptions to the daily operations across the system. With this, those working in the wider system to support schools were also focused on responding to COVID-19. Further radical adjustments were therefore made to the LCL Project design and delivery.

For schools, these external factors disrupted everyday teaching and learning, assessment practices and the overall delivery of the curriculum. A move to remote delivery of teaching and learning for most school-age students, with on-site delivery of teaching and learning only for the most vulnerable students and children of key workers was introduced at this time. Opportunities and capacity for professional learning in the LCL project schools, therefore, was inevitably and understandably affected.

As it developed, the external factors became a limitation, although not resulting in an entire halt to the work of the project schools, it significantly disrupted the development and applications of the LCL Project work in schools,

*I think what we would have had by now ... and then the plan was for all schools to do learning walks and talks with [external facilitator] back in, it would've been in June, wouldn't it, ... and I think that would've really reinforced a lot of the key messages ...one of my colleague's favourite sayings, when the rubber hits the road, when you're walking around a school with other leaders and ... other professional colleagues, I think that's when it becomes really powerful. ...I suppose the risk at this stage... we haven't done that yet and we're well into the project. ... that's an unintended consequence of what's happened with the... pandemic, but ... I think ... that's the biggest limitation at the moment and it's... unavoidable unfortunately.*

(Regional Lead 05)

The impact of COVID-19 cannot be underestimated on the everyday operations of schools and the norms of learning and teaching. Nor can the impact on the LCL Project participants themselves and those supporting the LCL Project, be understated,

*I think an awful lot of what [external facilitator] has shared with us will give us that... structural, strategic approach that will allow us to make sure that the curriculum does occur and that you know, and the other thing that we're dealing with of course, all the changes to mindset and expectation...and pace of learning that COVID has caused now, because you know, we're very, we're very keen with schools now to emphasise that ...we're still looking at wellbeing, still looking at engagement –...we need to celebrate progress now – it's not about catching up, it's moving forward, isn't it?*

(Regional Lead 04)

*...but I think everybody's thoughts have changed and I think a lot of people's perceptions of themselves and how they think education has changed as a result of COVID. And I think that COVID has short-circuited some of the things...we needed to think about in terms of moving forward with the new curriculum and there's ... a definite change of understanding around the concept of the Four Purposes and wellbeing and emotions and learning and learner- readiness... so, you know, those big things, are they really the things we would want to see coming out as the major outputs from this work...*

(Wider System Leader 02)

The influences of these distinctive external factors on the LCL Project were evident in the significant adaptations and adjustments made to the design and delivery of the project during these mid- and end-phases. The decision to deliver the remaining training sessions remotely was taken collectively between the tier 2 system leaders, the wider core delivery team, tier 1 system leaders, and the external facilitator. These decisions and adjustments were made after the interviews with system leaders for this research were completed.

All but two of the interviews took place during the events of COVID-19, between March and September 2020. Collecting data during this interim period provided unique insights into system leaders' real-time experiences of the external influences of the COVID-19 situation as it unfolded.

It was clear from the data that COVID 19 had become a pervasive external contextual factor when system leaders speculated on the progress of the work of the LCL Project schools, had COVID-19 not intervened,

*I think if those case management meetings were being carried out then you would've seen an improvement in data and... some of our schools...would've been able to track that back...[to] those walls with the faces... [but they] haven't been looked at for a long time – for three months. Whether they'll be able to pick that up with the other competing priorities that they're facing now, I don't know.*

(Regional Lead 02)

*...had we not faced this current situation, then possibly we could've tracked back and seen movement in ... results. Maybe some schools will still be able to do that because some that were sort of further on and engaged with the project quicker sort of got going quicker, they may still be able to see that sort of improvement – but whether we can go and analyse and ask at the current situation is another thing.*

(Regional Lead 01)

The extent of the impact of the external contextual factors of COVID-19 was referred to by system leaders when the future and sustainability of the LCL Project was at its most uncertain. They were clear that links needed to be made between the context of COVID-19 to support the school improvement work of the LCL Project,

*I would press them, ...on the relatability of the learning they've had on the project so far to the current situation – if you can get them to make the connections between what they learned and how it could be applied to the 'new normal', then they'll give you ...a starting point maybe for us to move the work forward...*

(Regional Lead 02)

*I...just...would be devastated ...if we didn't get...get the most out of this project, because it was going so well ...and... I really enjoy working with [external facilitator] ... I find her inspiring and I find her strength of her zest for the work, you know her passion for the work ...really uplifting and I think we've got some tough times coming ahead with reform, with blended learning with possible spikes in viruses and all sorts of things and we need some lights, we need some shining lights and I think [external facilitator]'s one of those, so if we can get...that message out and... schools re-engaging with her work then I think that's a really positive thing.*

(Regional Lead 02)

The influence of the external contextual factors that stemmed from COVID-19 were acknowledged as longer-lasting impediments to the progress of the LCL Project work in schools,

*...you know, schools have got these challenges now with making up the time with year 11 and Year 13 and I know we're going to have the changes to the qualifications that are going to be impactful, but there is still going to be a sense of lost time and the need for acceleration and with the [number] schools that we've been working on – it'll be interesting to see how – whether they feel, 'right, we need to park the ... project so we can concentrate on this' or 'we need to utilise the mindset and the principles of [the project] to make this happen' and I suppose the same is true with the new curriculum as well. How much can schools manage? How much can they synthesise all the priorities ahead, really...*

(Regional Lead 04)

For the delivery of the LCL Project itself, the external contextual factors of COVID-19 meant major adaptations had to be made to the project structure by the core project team to ensure its momentum was maintained.

The adjustments also had some unexpected benefits for the system leaders in the core delivery team. These reflected two other distinctive features of the system conditions identified in this research.

First, the change to the delivery mode for the training to a series of 10 webinar sessions resulted in extensive and deep collaborative practices within the core project team, both between each other and with the external facilitator.

The remote planning and rehearsal sessions often occurred with only one week in between each live streamed session. This resulted in frequent contact for the team and increased levels of relational trust and enhanced collegiately. The success of these adaptations and the completion of the planned training sessions in the LCL Project were evidence of the **relational trust** in the core project team, the second finding and distinctive system condition in this research.

Second, the move to remote delivery required the core delivery team to learn and hone new skills. This provided additional **system leadership and learning** opportunities as system leaders and the external facilitator worked together to develop their technological capabilities and knowledge to coordinate, re-design and deliver the training sessions using online platforms, remote video communication and live streamed webinars.

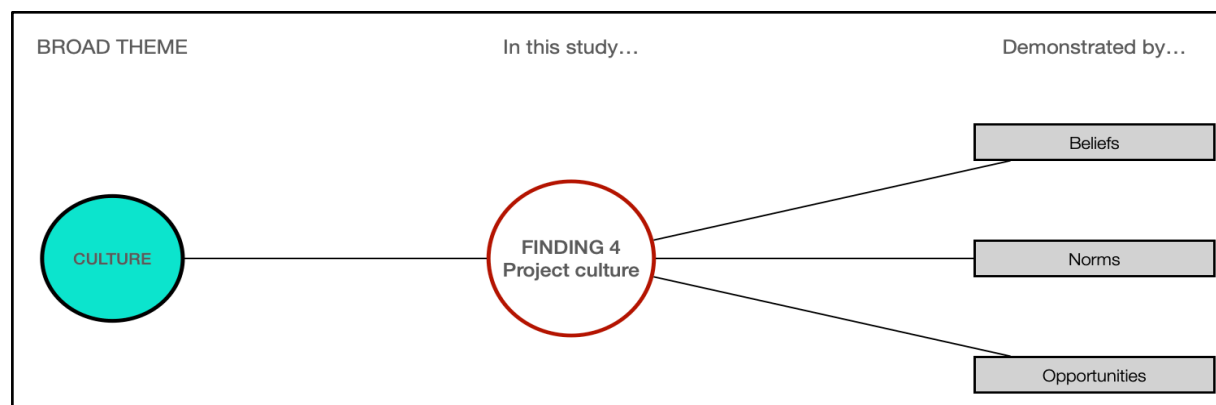
Third, the adaptations necessitated by the external factors of COVID-19 provided evidence of system capacity to respond to and **lead change** processes,

*...we do need...to make aspects of this, if not the whole, sustainable because...we're moving into ...a new era now in two different ways and unexpectedly, so obviously...we've still got the preparations for the new curriculum and everything that involves and the challenges that are involved there with the qualification change for...Key Stage 4 as well ...I think what the ... project gives us is structures on which to sit all of that, and structures going forward are going to be the things that we need to get right because ...the new curriculum needs to sit on something solid, doesn't it?*

(Regional Lead 04)

Each of the three distinctive features of system-wide contexts, policy alignment, system coherence and external contextual factors, were evident as system conditions of the LCL Project.

#### Finding 4 – Project culture



Finding 4 relates to the conceptual theme of **culture**. For the purposes of this study, the conceptual theme of **culture** was defined in this research as:

***‘Culture’ (beliefs, norms, and opportunities) - of organisation and system, how this affects practice, behaviours, and readiness to respond to change, pressure, learner needs. Where professional learning is prioritised within schools and by those working at and across all levels of the system. Willingness by individuals and organisations within the system to engage and establish conditions to actively support, enable and facilitate improvement and organisational, collective, and individual learning.***

This made a clear distinction between the conceptual theme of **context** of Finding 3 and that of **culture** in Finding 4 (Figure 28).

The distinctive features of this finding were most evident in the training processes of the LCL Project. These processes engaged different organisations and teams across the system to learn collaboratively across relational, organisational, local and regional cultural boundaries.



The different cultural features of the teams and organisations were therefore absorbed and amalgamated into the cultural features of the LCL Project.

FIGURE 28: THE DISTINCTION BETWEEN CONTEXT AND CULTURE IN THIS STUDY

CONTEXT	CULTURE
<p>The contextual influences evident as <i>external</i> system conditions. These contextual factors required people and the system to react and respond. They were defined as a set of system conditions over which those working within the system had little or no direct control.</p>	<p>The <i>internal</i> system conditions that affected those working across the wider system, in different teams, and in organisations. The different organisational cultures reflected the <i>internal</i> conditions in which people work and interact. This was a system condition over which those working within the system had a degree of control.</p>
<p>Finding 3 identified the distinctive features of context in this study as, <i>policy alignment, system coherence and external conditions (COVID-19)</i> and how these influence and act on how people work and interact.</p>	<p>Finding 4 identified the distinctive features of organisational cultures in this study and organised them into cultural elements of beliefs, norms, and opportunities.</p>

Finding 4 reflects the distinctive culture of the LCL Project. This embodied the beliefs, norms and opportunities of the collaborative professional learning and school improvement approach of the LCL Project design, content, and training pedagogy. The distinctive cultural features of the project were organised into three elements.

These elements were:

- (1) **Beliefs** – the understanding of the purpose and nature (the project rationale) of both the teaching and learning approaches and the theories of action endorsed by the LCL project

- (2) **Norms** – the accepted ways of working, interacting, and behaving as individuals, groups, teams, and cross-organisational professionals working in and across the wider system
  
- (3) **Opportunities** – the resources, new processes, roles, and systems that emerged from the LCL Project beliefs and norms. These created and designed the time and space that prompted interactions for the generation and mobilisation of new ideas, and where knowledge and practices were tested, refined, and applied.

These three distinctive features of the culture of the LCL Project contributed to the overall system conditions prevalent during the project.

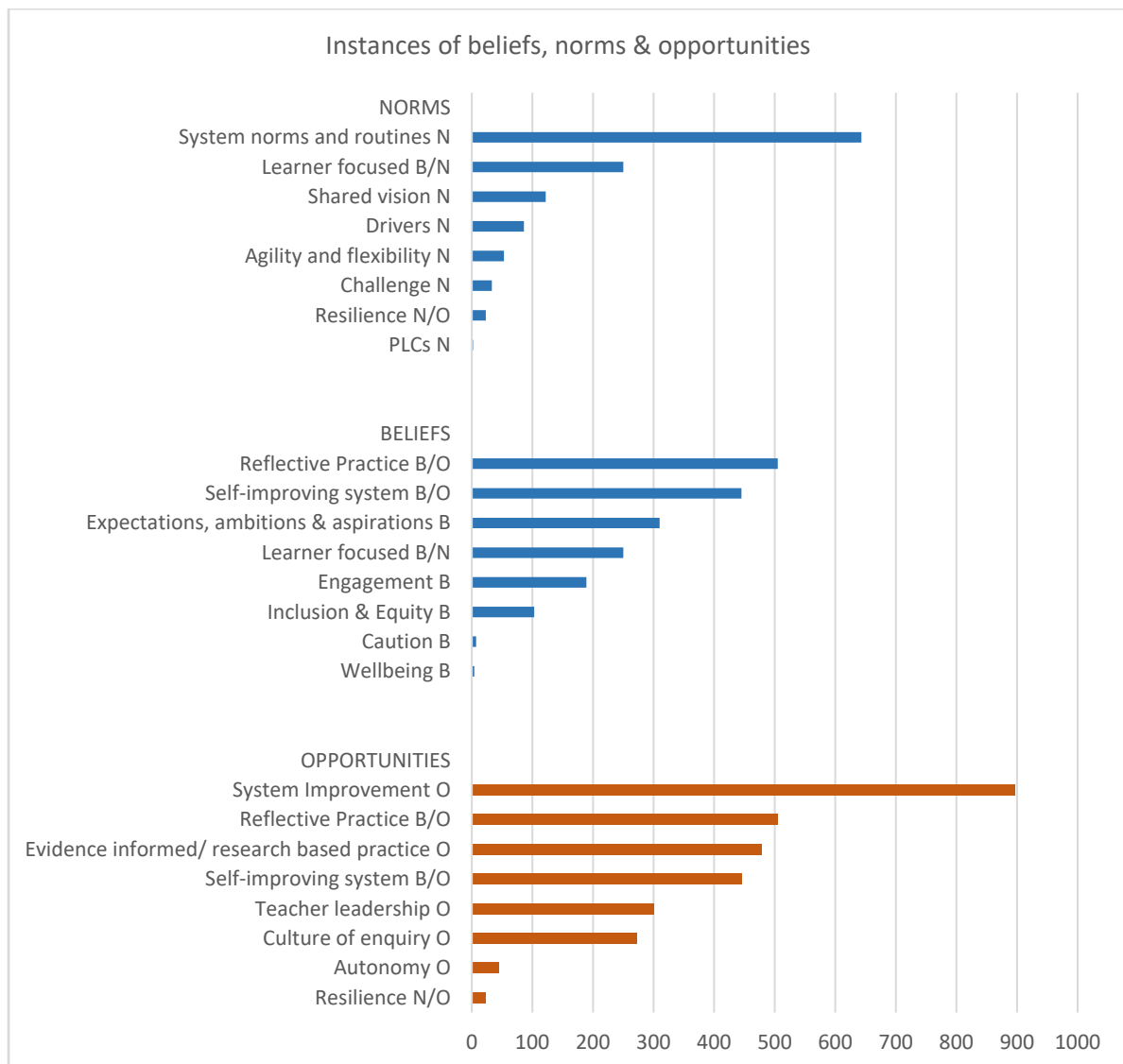
The interrelated nature of the three features meant that some of them incorporated both beliefs *and* norms, norms *and* opportunities and opportunities *and* beliefs (*Figure 29*).

*FIGURE 29: ALL FEATURES OF ORGANISATIONAL CULTURE (B=BELIEFS - N=NORMS - O=OPPORTUNITIES)*



Of the interrelated features of project culture, ‘opportunities’ occurred most frequently (50%), followed by ‘norms’ (30%) and then ‘beliefs’ (20%) (Figure 30). Each of the three features of this finding are discussed next.

FIGURE 30: OVERLAPPING BELIEFS, NORMS, AND OPPORTUNITIES



### (1) Beliefs

Belief in the importance of reflective practice was the most frequently occurring feature of the LCL Project culture. For those leading school and system change, reflective practice was fundamental to establishing the system conditions to support policy implementation,

*...in those Professional Teaching Standards and, you know, there's always a reflective part to that, so, 'What have you done, why have you done it, and what are you doing next?' And it's encouraging that thought process of, 'Why did I do that?', so it's developing that. Now the Teaching Standards are there for all, but if you've been in*

*the teaching profession for such a long time, ...sometimes it's getting used to that reflective nature ...and embracing that reflective nature, I think, isn't it?*

(Challenge Adviser 02)

*We knew the new curriculum was coming, we weren't going to wait – we were a 'Pioneer School', we were a curriculum school...we were engaged in that kind of, 'right let's do this...because we can do it... we've got the power to do that and I think...what the... [Welsh SLO model] ...allows you to do is to push those boundaries and turn them on its head into, 'Why do we do ... this...?', you know, ask that question, 'Why are we doing it this way?'... and ask that enquiry question for each part of that...*

(Wider System Leader 02)

Beliefs in establishing a culture of reflective practice were expressed by system leaders,

*...and the conceptualisation of what a school is ultimately for as it is about the practicalities of, you know, 'How do I try and make sure that staff are learning, that leadership is distributed, that ... we're reflecting on evidence and making important decisions?'*

(International SLO Expert 02)

*...but also, it is about developing this reflective learning culture and that culture of enquiry. So, I think those are the kind of, for me, the big ideas ...of the work that [external facilitator's] ...doing with us....In regions, [we have] done quite a lot of work to make sure this does tie into the National Mission and what's going on ...in terms of national policy at the moment but actually, fundamentally, [it is] about making sure that our young people get the best experience in the classroom...and, you know, if we talk about culture and leadership, we know those two things are absolutely crucial... creating the conditions for those things to succeed.*

(Regional Lead 05)

Reflective practice was also an important belief underpinning the shared philosophy about the LCL project itself,

*...it doesn't have to be the head, it can inform them and it's the philosophy as well ...of trying to reduce that judgement and encourage the reflective nature of teachers, ...we've been so used to having people writing reports on how good or how not so good we are... can we bring ... that philosophy to other schools and to the team ...can we think reflectively and can we have that discussion about, 'Well, why did that teacher do that when we were there? Why did those pupils respond so positively or not so positively? What is it we can do?'. So, it's a help and a guide ...rather than having the accountability being judgemental ...and causing ...lack of confidence in teachers, really.*

(Challenge Adviser 02)

This resonated with beliefs related to the creation of a self-improving system, and shared ambitions and expectations for all learners. This reflected many of the dimensions of the Welsh SLO model for schools to collaborate to realise their own and each other's improvement goals, by establishing a culture of enquiry (Dimension 4), collaborative learning and improvement (Dimension 3), by creating systems of knowledge exchange (Dimension 5) and for schools to learn from beyond their immediate contexts (Dimension 6),

*... so that they are using those elements of the Schools as a Learning Organisation model to become ...a self-improving school system, really, and I'm really interested particularly in the crossover between the ideas outlined in [the project] ... how that aligns with the SLO model, because I think it does align beautifully, so it's a really interesting way to put the meat on the bones, I think, of the SLO model.*

(Regional Lead 02)

*... if we are really ...to ask that schools are self-improving school systems...you need to allow schools to work together ... and not just have a ... downward pressure of accountability systems. It's got to be based on self-efficacy and sharing of excellent*

*practice because you're releasing the blocks ... within a high-stakes accountability system and allowing people to develop and grow and share and nurture and work the way through... ..something which is flexible and mature...*

(Wider System Leader 01)

*...it's really thinking about developing that in a different way and I think that's, again, that ties into the National Mission – this idea of actually, to be an effective Learning Organisation, you can do these things for yourselves and I think that ...you know, that's the sort of culture we need to develop as we... move forward and that ties in with ...the National Mission...*

(Regional Lead 05)

## (2) Norms

The second distinctive cultural feature of the LCL Project were the norms established during the training sessions, the project-specific language relating to the practical tools and the routines and ways of working established by the project delivery team.

At the beginning of every training session, both in-person and remote, the external facilitator made explicit references to the operating norms for the session (*Appendix 5 – 5.4 NPON excerpt – Operating norms, routines, project-specific language*). The structure of these remained the same for every session, with the operating norms followed by the learning intentions and the specific success criteria for each session.

The operating norms formed a reciprocal agreement between facilitator and participants. They made expectations clear for everybody in terms of their behaviours, commitment, engagement, and outcomes for each session. This consistent part of the training sessions ensured that these norms were explicit. They were a distinctive feature of the culture of the LCL Project.

It was made clear that these norms applied equally to the external facilitator and to system and school leaders, project teams and the wider system when leading collaborative professional learning and school improvement efforts,

*...for me, operating norms are setting that culture of learning – that expectation of how we're going to respect and treat each other.*

(External Facilitator)

The subsequent monitoring of the LCL Project norms was essential to sustain the distinctive culture it established. This monitoring was directly linked to how the practical tools were applied in different school settings, contexts, teams, organisations and across the wider system,

*I think what the ... project gives us is structures on which to sit all of that, and structures going forward are going to be the things that we need to get right because ...the new curriculum needs to sit on something solid, doesn't it? So, the purposes within the curriculum ...are only as good as the plan that... you know, the vehicle that's going to make that happen and...I think an awful lot of what [external facilitator] has shared with us will give us ...that structural, strategic approach that will allow us to make sure that... the curriculum does occur...*

(Regional Lead 04)

Another cultural norm of the LCL Project was the consistent focus for all leaders and practitioners to know every learner. This norm ensured that teaching and learning was directed at meeting the learning needs of every student, reflecting the LCL Project's cultural belief in equity, and its associated *norm* of enacting this.

In other words, all leaders and teachers involved in the LCL Project were part of a culture where they took the time and explicit practical steps to ensure that they knew the needs, interests, and potential of individual learners,



*So [external facilitator]’s work twists it the other way round slightly which puts the child at the heart of that, ‘What does the child want to achieve?’. The child is the...control in that, ...and that’s been an eye-opener and it has been an eye-opener to the schools that have taken part in it. ... It’s only when you actually start considering what does the child themselves actually want to achieve that the ‘faces’ actually begins to matter.*

(Regional Lead 03)

This relentless and unapologetic focus on the progress, achievement, interests, and potential of every individual learner was extended to the norms of leadership and pedagogical practices and supported by the shared language, the practical tools and learning systems endorsed by the project,

*...for it to really work, we need a system-wide adoption of it and for the language of it to become familiar to everybody who’s involved in that system.”*

(Wider System Leader 01)

This resonated with the cultural norms underpinning the wider system within which the Welsh SLO model is located,

*...if you were to inspect schools ... in a...learning organisation culture... the questions around... ‘What does training look like?’... should be as important as, ‘What were the outcomes last year for Year 9 ...?’ ... because ...if you honestly believed it’s the workforce that delivers outcomes in the end, it should be a valued part of the process.*

(Wider System Leader 01)

### (3) Opportunities

The third feature of the culture of the LCL Project was reflected in the opportunities for system and school leaders to learn *about, from* and *with*, an internationally renowned expert, beyond their immediate settings,

*...some intensive support from someone outside the system in Wales so they weren't ... getting told by the same people the same stuff all of the time, to bring them together – what was really interesting about the project was ... [it] wasn't just [external facilitator], in fairness, it was this opportunity, it was the collaborative nature of [the external facilitator's] work.*

(Regional Lead 03)

The overlap of the opportunities and beliefs that made up the distinctive features of the LCL Project culture were clear,

*I think what we somehow need to capture, ... 'Have our practitioners and have our schools reflected, have they valued the opportunity to be reflective, have they valued the opportunity to collaborate?'*...

(Regional Lead 03)

The LCL Project also provided opportunities for participants to think differently about organisational culture. They were prompted to consider whether their own team or organisational cultural conditions were an enabling or obstructing system condition,

*...you know, there are some things you could do at policy level, ...at school level that start to shift the dial a bit but actually, it's about re-conceptualising our thinking about Schools as Learning Organisations...The key conditions...if you want schools to be Learning Organisations, then you need two things around that. You need ...a learning system, so you need your central ministry and whatever your kind of national framework, improvement framework needs to model it and ...live it...at the centre, "How do you create the right culture and so on and so forth?" "How do you try to create feedback loops that you're learning and kind of learning from mistakes as well as ... learning from what's successful and so on and so forth?" ...and then you need a kind of model...a 'middle-out' change...*

(International SLO Expert 02)

Distinct to the LCL Project were the multiple opportunities for participants to develop their practice directly out from the classroom and extend this to the overall culture of the school. From here, the project emphasised the importance of establishing opportunities within the wider system and to create the conditions that were best suited for school and system improvement efforts to be successful,

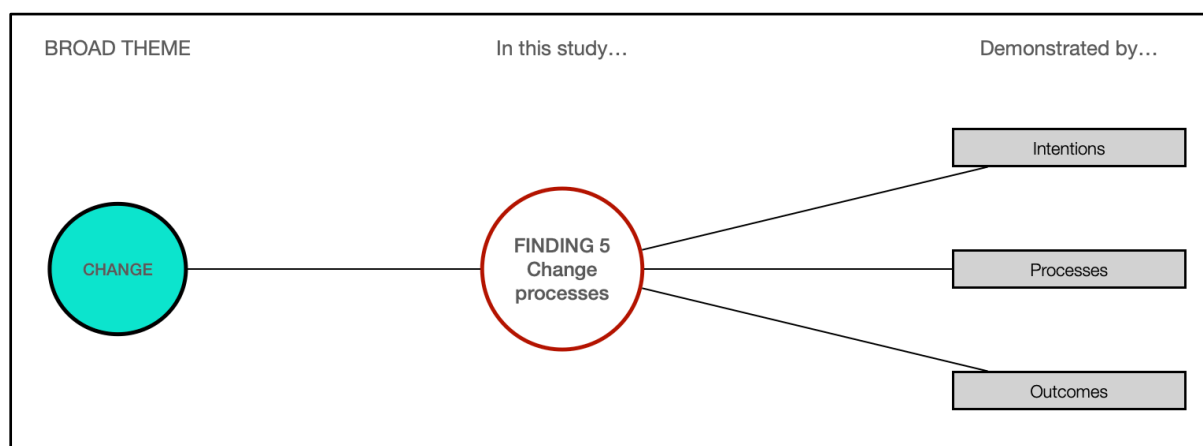
*... you can't possibly have a school as a learning organisation if you're not in classrooms. Monitoring...modelling and...working alongside teachers and teacher leaders as leaders ...to... ..really assess quality teaching and learning in every classroom and then monitoring it through... ..regular ongoing learning walks and talks in classrooms ...there are tools in [the LCL Project] to really support leadership as absolutely the main stay to system and school improvement...*

(External Facilitator)

The three distinctive features of beliefs, norms and opportunities were evident both individually and, as interrelated features. When combined, formed the distinctive culture of the LCL Project.

This project culture was one of the distinctive system conditions that influenced the momentum, pace, and level of engagement in the LCL Project.

### Finding 5 – Change processes



Finding 5 focuses on the conceptual theme of **change**. The data show that there were three distinctive features of change that reflected the intentions, processes, and outcomes (IPO) of the LCL Project.

These features of change emerged during the analysis of the data when the IPO framework was applied as both an organisational and analytical tool.

The features of change distinctive to the LCL Project are summarised below:

- (1) **Intentions** – the rationale for the LCL Project to promote and sustain school improvement at scale through system-wide collaborative professional learning.
- (2) **Processes** – the training pedagogy, resources, approaches, and practical tools in the LCL Project that facilitated change processes to lead improvement and collaborative professional learning.
- (3) **Outcomes** – the actions and behaviours identified in the data as proxy indicators of change.

The IPO framework documented a change process over time. It traced the aims (the intentions) of the project - the 'why', the strategies and tools (the processes) employed to achieve these aims - the 'how' and captured the impact of these (the outcomes) on the context in which they were deployed - the 'what'.

The fifth finding in this study presents the distinctive features of change evident in the data and presents them as part of an overarching narrative of change.

Working backwards, and where the change-narrative achieved its greatest coherence, the *outcomes* of the LCL Project resulted from the *processes* which in turn, reflected the *intentions* of the project. These distinctive features defined the nature of change and its presence as a system condition that were present during the two years of the project. These three features of change are discussed in turn in the next section.

(1) Intentions

The intentions of the LCL Project reflected the rationale and marked the start-point for the change narrative for the next two years. The intentions of the project were evident most prominently in its explicit collaborative design,

*...to bring them together ... it was this opportunity, it was the collaborative nature ... this idea that ...they were able to share their commonality if you like...it was that opportunity to collaborate in a school improvement journey...*

(Regional Lead 03)

*I think in terms of intentions, what this project does is provide schools with a tried and tested model for collaborative learning that allows all of the teachers to be responsible for all of the 'faces'... you know, that the system and the mechanisms promoted in this work through this project allow for sharing knowledge about pupils, sharing expertise in teaching ...to improve the experiences for all learners and that comes from close collaboration, so it's solving problems for pupils rather than ...each teacher working in isolation, I suppose, with contradictory strategies – it's joined up thinking – it facilitates joined up thinking.*

(Regional Lead 02)

The project intended to encourage participants to adopt this “*joined up thinking*” when leading improvement across the *whole* system, not only in their immediate team, school, and/ or individual settings,

*...So that everyone, in the system and not just within your school or within your department...but that the whole system can develop the children's capacity so that all students, ...are good for everyone, not just 'good for me'.*”

(Regional Lead 02)

The LCL Project also intended to address the inherent challenges and complexities of establishing system-wide collaboration,

*It's all very well talking about distributed leadership and collaborating, but the reality is often a lot more problematic and complex...*

(International SLO Expert 02)

By encouraging system leaders to help schools see and think about the whole system, the design and structure of the LCL Project enabled participants to make connections, build team capacity and develop school improvement capabilities,

*I mean, there are things within that list that schools are doing well enough already. It's about making sure that the whole structure is, you know, mutually supportive of all the aspects of school improvement, isn't it?*

(Regional Lead 04)

There was also an explicit intention to impact on the wider system by building capability and capacity in leading, delivering, monitoring, and sustaining quality teaching and learning for every learner in every classroom. This resonated with the collaborative professional learning design principles of the Welsh SLO model,

*... the physical embodiment of SLO elements, you know, collaboration, professional learning, vision, you know you're all... of those separate elements are in practices that are encouraged within the project...*

(Regional Lead 02)

*...that work they're doing to sustain improvements ...in teaching and learning ...and to develop that in - that instructional leadership role ...so yeah, so for me, I think ... that absolutely plays into the schools as learning organisations [work] ...*

(Regional Lead 05)

When combined, these intentions established the start-point from which to lead the changes intended by the design and content of the LCL Project. This established the foundations from which the change *processes* then followed.

(2) Processes

The immersive, experiential and ‘real-context’ delivery processes of the training sessions in particular were a distinctive feature of the leadership of change in the LCL Project delivery,

*...But I think...from our perspective, our people...and within our organisation, who have been and experienced it, certainly the ones that came and did the ‘Learning Walks and Talks’ with us ..., it just, it just made sense to them, you know, in terms of their work and where it fits.*

(Regional Lead 05)

*Because it was live ... we were actually live modelling it –...you know how you often have a training and it’s on learning walks and it’s, “This is what you would do”... but because we had [external facilitator] there and she split us all into groups and step by step, she took us through the Learning Walks and Talks process...she walked with us and we came out and had a conversation and then the next one, we went in and we went to the questions – we came out and we discussed...so I think it was the active – action modelling of it, so you felt confident going back because you understood and you’d learnt and had that chance to actually discuss with [external facilitator]... with other colleagues. So, it was that live sort of element of it really.*

(Challenge Adviser 03)

The practical tools shared during the training sessions reflected the pragmatic nature of the LCL Project processes.

These tools included:

- Learning, Walks and Talks
- Five Questions
- Knowledgeable Other
- Case Management Meetings

- Data Walls

(Sharratt, 2018)

These tools frequently occurred in the data (*Figure 31*). They were unique to the LCL Project resources, language, and terminology and informed the shared language and common knowledge of the LCL Project.

These practical tools were actively modelled and delivered through immersive, experiential learning processes in the in-person training sessions,

*I could see a lot of schools shifting towards ... that model for ...their ...peer-to-peer learning walks and talks as well rather than ...top down – I think just that idea of learning from each other and having that discussion in a really positive way...*

(Regional Lead 02)

*Monitoring, ...modelling and...working alongside teachers and teacher leaders as leaders ...to ...really assess quality teaching and learning in every classroom and then monitoring it through ...regular ongoing learning walks and talks in classrooms...*

(External Facilitator)

*...the data walls are a really good way to... focus on targeted improvement and help you to see those outcomes – those shifts in data ...and a couple of our schools were doing that and had been doing that prior to the project, but what the project had done is give them more of a razor sharp focus ...on what those fifteen minutes should be about, rather than more sort of general open discussions about how so-and-so was doing...*

(Regional Lead 02)

*And I think ...that's what this ... process is doing..., the learning walks and talks and just the simple questions ... that sort of allowed people to think about it from the learning, as opposed to the teaching... Alongside this, the link to the Welsh SLO*



*model was explicit in the training sessions as an integral part of the implementation processes for the practical tools...*

(Wider System Leader 02)

The processes of the LCL Project were frequently referred to during the webinar training sessions (*Appendix 5 – 5.9 - NPON excerpt – Practical tools in webinar sessions – e.g. the co-construction process for success criteria*). This reinforced the distinctive nature and language of change processes of the LCL Project.

The practical, experiential and immersive nature of the change processes in the LCL Project were explicitly linked to the project processes and aligned to the Welsh SLO Model (*Appendix 5 - 5.7 Photographs of artefacts from in-person training session*).

The outcomes that followed from the application, experiences and on-going development of the processes employed over the two years marked the close of the change narrative for the project. These outcomes are the third distinctive feature of change as a system condition evident during the LCL Project and are presented in the next section.

### (3) Outcomes

Adaptations to existing practices were one of the earliest indicators that change was an outcome of the LCL Project,

*...we had one school as well that was taking on sort of looking at research... ..in more depth as well and just talking about research-informed practices and about pedagogy and I think that was something they were... doing anyway but I think ...the...project has helped and ...one school have a [name of CPD session]... where they talk about learning and they talk about research and I think that's this project that's helped that along as well.*

(Regional Lead 01)

*...and therefore, I think there's some ... who have managed to build on this and create far more collaboration across schools...they were already on the pathway, but this has given them a framework to work in...*

(Wider System Leader 01)

*...Week one, we had some schools saying things like, 'oh, well, we do this already – we do this already'. We weren't necessarily looking at ...the big picture ... ..and looking at how...all of these different strategies that they were using all fitted together, so maybe they were doing little bits of it here and there but not really using it as a whole.*

(Regional Lead 01)

Capacity, capability and expertise building also indicated that change had occurred and was evident in the LCL Project,

*...it ranks amongst the best professional learning that I've personally ever done in terms of the simplicity of the approach and actually the flip of saying learning walks and talks aren't about compliance, they're about learning and they're about finding out what's going on in our classrooms, what our learners understand, and you know...where...perhaps we need to support our teachers to improve – I think that, for me, will be the most important part ... of this process ...because what that then does is that ...staff in our organisation have got those skills and that knowledge to go and do that work with schools around sustaining that conversation about teaching...*

(Regional Lead 05)

Another outcome of change was the impact on system leaders' perceptions of their own and others' thinking about leading and monitoring change. This located changes that had occurred in their own teams and across the wider system,

*...it has made a significant difference to me in... that clarification of ideas and what matters...The one thing I took away ... and I've used it tirelessly since – about*

*attitude to changes – agility – [the external facilitator] talked about staff being agile... and I think... it's a simple word and it's a simple thing but...it's again like what I said about language, we talk about flexibility, but agility is another level again.*

(Regional Lead 04)

Ultimately, the outcome of the LCL project engaged and modelled collaborative learning processes that were supported with practical process-tools to deliver improvements and support change outcomes. These outcomes were evident in the changes in thinking, practices and development of systems and structures,

*...we need to change hearts and minds if we're going to achieve the new curriculum so there needs to be that transformation. In ten years', time if we walk into a classroom, into a school, what are we going to see? ... how will we know if we've been successful? ...I...do think that if we walk in and we see something that's the same as what we've got now, then we've failed. So that really does involve transformation, that really does involve changing hearts and minds.... but, you know, how's it changed their thinking? ... about their role as a leader, about themselves as educators, or as themselves as learners? So that 'Lead Learner', so how do they now see themselves as the learner, the 'Lead Learner in the school?'*

(Wider System Leader 02)

The distinctive features of change in the LCL project were identified by employing the IPO framework to design, deliver and document this research. This captured evidence of the intended changes and how these had been attended to and initiated. This also captured evidence of how these were sustained during and beyond the timeframe of the project and therefore identified the very earliest indicators of impact.

## Section summary

This section has detailed the distinctive features of the system conditions evident during the LCL Project. It is the distinctive features of these five system conditions that are unique to this research. Combined, they created the ideal environment to facilitate and enable the

capacity and expertise building of the LCL Project. In addition, by attending to the specific features of these five system conditions, the LCL Project momentum was maintained, it was able to adapt and continue to its intended completion date, even when faced with the significant and unpredictable system-wide disruptions of COVID-19.

The distinctive nature of system capacity that was developed as a result of the LCL Project is evident in Findings 6 and 7. These two findings are discussed in detail in the final section of this chapter.

### Findings 6 & 7 - System capacity

Findings 6 and 7 identified two specific types of *system capacity* evident during the LCL Project. They were distinct from the system conditions of Findings 1-5 in three ways.

First, they emerged inductively from the data, as opposed to the deductive emergence of Findings 1-5.

Second, they were distinct from Findings 1-5 in how they were evident in the LCL Project. These two findings were mechanisms of the LCL Project design and delivery processes within the wider system conditions (Findings 1-5) during the LCL project.

Third, Findings 6 and 7, in their entirety are unique to this research. They are, therefore, integral to the original contribution to knowledge that this research makes.

In summary, Findings 6 and 7 contrast with Findings 1-5 in the following ways:

1. They emerged inductively, rather than deductively from the data.
2. They identified distinct elements of *system capacity* evident in the LCL Project, as opposed to the distinctive features of *system conditions*.

3. The two elements of system *capacity* in these findings were distinctive in their *entirety*. This contrasted to the distinctiveness of the *features* of the five system *conditions* of Findings 1-5.
4. Findings 6 and 7 were not dominant themes in the literature. They emerged directly from the data collected from the LCL Project.
5. These two findings were specific mechanisms of system *capacity* evident during the LCL Project, that responded to and benefitted from the established system *conditions* of Findings 1-5.
6. Findings 6 and 7 were actively developed during the LCL Project over time and resulted directly from the design and delivery of the LCL Project. This contrasted with the features of system conditions of Findings 1-5 that were evident from the outset of the LCL Project.

The next section demonstrates how these two findings were crucial to:

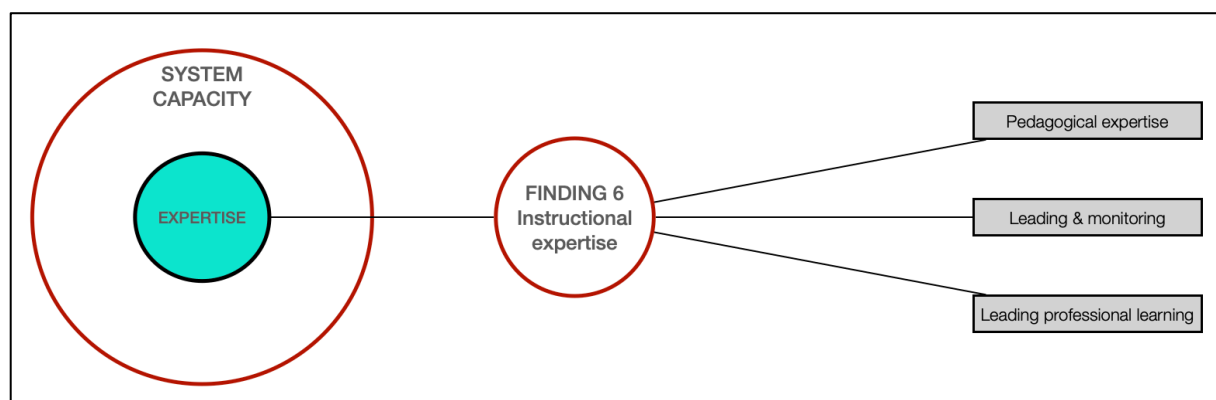
- Maintaining the momentum of the LCL Project despite the turbulent contextual conditions encountered over its two-year duration
- Complementing the five system conditions (Findings 1-5) in the steps taken to implement policy into practice at scale

The two findings identified two specific forms of expertise in the LCL Project. These were:

1. Instructional expertise
2. Implementation expertise

The distinctive nature of these two forms of expertise, in their entirety are presented in detail in the next section of this chapter.

## Finding 6 – Instructional expertise



Finding 6 was 'Instructional expertise'. This finding was identified as a mechanism of system capacity. This was critical to establishing participant engagement or 'buy-in' and communicating relevance of the knowledge shared and generated during the LCL Project from beginning of the project.

The design and content of the training sessions, the course materials and the collaborative professional learning sessions designed into the project from the outset were all directed towards developing instructional expertise.

Evidence of the unequivocal focus on developing instructional expertise was consistently evident across all data sources. Three features of instructional expertise combined to form this as a distinctive mechanism in the LCL Project that built system capacity. These three features were:

- (1) **Pedagogical expertise** – up-skilling individual teachers, school and system leaders in pedagogical practice as 'expert pedagogues' to systematically deliver quality teaching and learning and meet the needs of all learners.
- (2) **Leadership and monitoring of pedagogical expertise** – leading change and improvement through monitoring and modelling effective pedagogical practice in individual schools and across the wider system as 'teacher leaders'. Systematic

school and system wide processes to identify pedagogical expertise and areas for development.

- (3) **Leadership of professional learning** – informed design (based on systematic monitoring) of professional learning programmes to address the professional learning needs of all staff. Designing, enabling (resourcing and facilitating) and delivering relevant (to learner’s and practitioner’s needs) and tailored professional learning opportunities for all staff both within, between schools and across the wider system.

These three integrated elements of instructional expertise are presented in this order in the next section of this chapter.

#### (1) Pedagogical expertise

The term, ‘Instructional Leadership’ was adopted as an integral element of the language of the LCL Project, encompassing the distinctive aspects of pedagogical expertise in the training materials. Developing pedagogical expertise was central to the school improvement framework of the LCL Project (*Appendix 2 - 2.1 The 14 Parameters Framework*) accompanied by the specific pedagogical practices modelled during the in-person and remote training sessions,

*...there’s such a strong focus, it is the main focus on teaching and learning, isn’t it? So, ...it just came to my attention really that it was so important because it’s the basis of the stuff that schools are all about”...*

(Challenge Adviser 02)

A key message evident during the training sessions and in the supporting resources was that developing ‘Instructional Leadership’ in teachers and leaders at all levels was necessary to improve all schools and the wider the system.

The explicit focus on developing pedagogical expertise was a precursor to establishing a coherent, shared, system-wide approach to building capacity in pedagogical expertise across the system,

*...the Welsh Government's vision of schools as learning organisations – you can't possibly have a school as a learning organisation if you're not in classrooms.*

(External Facilitator)

The design of the project modelled how pedagogical expertise was best developed, by focusing on designing and leading *collaborative* professional learning opportunities. In this way, knowledge was actively sought, and shared, and new insights and new knowledge was generated and mobilised across the system. The collaborative professional learning design, therefore, intentionally increased the pedagogical capacity and capabilities of all LCL Project participants.

This also linked the teaching, learning, and assessment literacy to the wider policy context of the National Mission (Welsh Government, 2017a) and, in particular, the implementation of the new curriculum. This deliberately aligned the development of pedagogical expertise in the LCL Project to its policy context,

*I...saw my role as being the calm who listened to everyone's points of view but found...a road forward that was all about students and high expectations...I said, over and over, 'this is an opportunity to implement your new curriculum' because all of the assessment waterfall charts starts... with curriculum – starts with the learning intentions and ...the co-constructed success criteria and ... they could see how the new curriculum would be supported by the... assessment literacy sessions...*

(External Facilitator)

The focus of the LCL Project on increasing pedagogical expertise developed system and school leaders and teachers' abilities to respond to individual learners' needs and abilities,



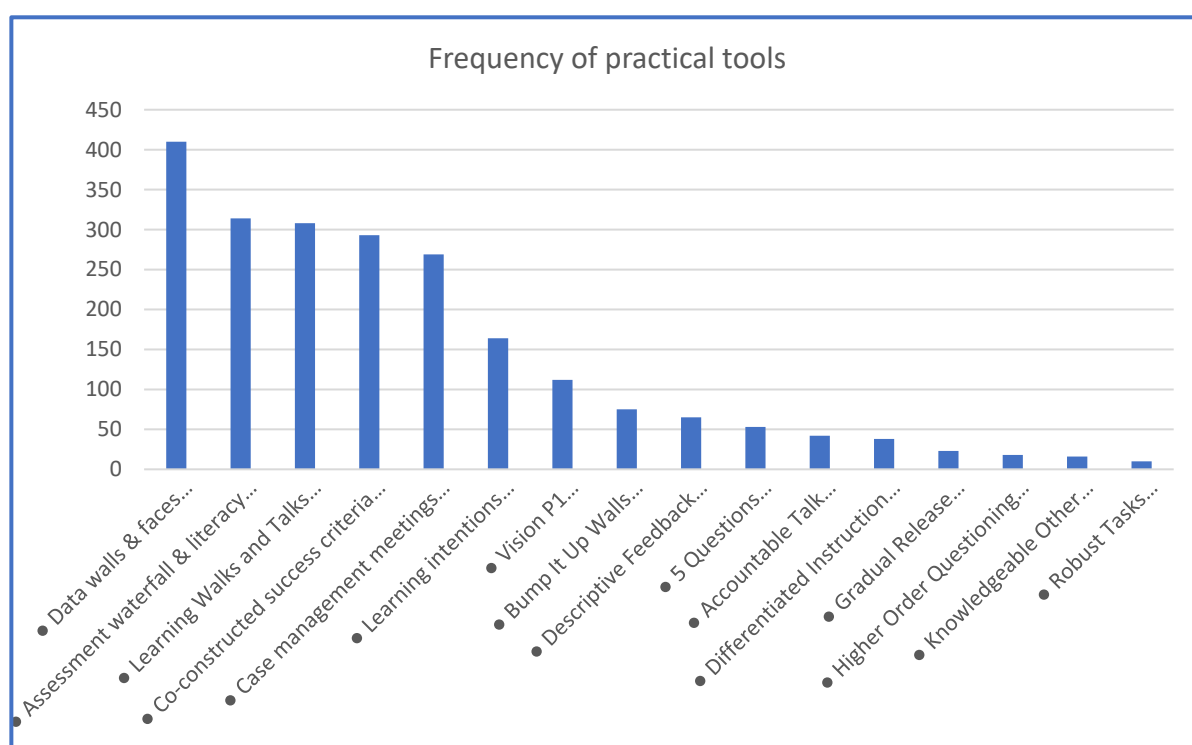
*...there's a part of our teaching that is missing because children are not understanding why they're doing it and they're not understanding – not saying always, but the success criteria and sometimes, you know, I actually as a pupil know how to improve, myself – so they actually learn the strategies themselves and that they can go to WAGOLL\* on the wall or, you know, there's different elements...*

(Challenge Adviser 03)

[\*What A Good One Looks Like]

The practical tools shared and modelled during the in-person training sessions were a distinctive aspect of pedagogical expertise-building in the LCL Project from the outset (Figure 31).

FIGURE 31: PRACTICAL TOOLS TO INCREASE INSTRUCTIONAL EXPERTISE



The ‘homework’ sessions in the second week of in-person training sessions gave project participants a discreet opportunity to share experiences of using these practical tools in their own settings. In these discussions, they learnt *about, from* and *with* each other,

*... things around how they were capturing progress that those identified learners were making in the case management meetings and just in a simple pro forma on a page or using technology...you know...photographing work and capturing work and ...understanding progress collaboratively...*

(Regional Lead 02)

The suite of practical tools used in the project were all directed at developing pedagogical expertise for every project participant,

*And I think ...that's what this ... process is doing..., the learning walks and talks and just the simple questions that was there, that sort of allowed people to think about it from the learning as opposed to the teaching...yeah. Alongside this, the link to the Welsh SLO model was explicit in the training sessions as an integral part of the implementation processes for the practical tools...*

(Wider System Leader 02)

These practical tools were explored and modelled in the in-person and remote training sessions. This was enhanced by the course reading tasks, the core text and the case studies shared during the training sessions.

The exploration, modelling and application of these practical, actionable tools were integral to developing pedagogical expertise and establishing quality teaching and learning practices in every classroom, supported by all teachers and leaders in the school and wider system,

*...that the system and the mechanisms promoted in this work through this project allow for sharing knowledge about pupils, sharing expertise in teaching...*

(Regional Lead 03)

*...but [external facilitator's] work is valuable. So, for example, I've taken a part of it and used it in my work...I've talked with schools ... I've got the ...classroom learning walk... I've done it but I find [external facilitator's] approach far more practical, far simpler ... two of the schools have adopted it into their criteria, you know, for*

*conducting learning walks which I think is ...an indirect influence, isn't it? Because it's come from me through my work into those schools who are not part of the project ...and maybe that's the way to work it – it's to work through the consortia...*

(Challenge Adviser 01)

The sharing and modelling of these tools was central for every participant in the LCL Project, for school and system leaders alike,

*...I do really think it was about having a practical, evidence-informed...collaborative project ...that really would support school improvement and that was the main driver at the time... and I think that whilst we've got the sort of bigger picture stuff emanating from it, in terms of pedagogy, in terms of realising the new curriculum and the learning that we can take from it, I think the main driver was school improvement...*

(Wider System Leader 02)

By making these practical approaches so central and taking steps to contextualise them, they were directly integrated into the classroom practices of teachers and school leaders and into system leaders' school improvement strategies across the wider system.

The unequivocal focus on developing classroom practice increased pedagogical expertise and was a distinctive element of 'Instructional Expertise' as a mechanism to build system capacity in the LCL Project.

The second distinctive element of Finding 6, 'Instructional Expertise', was how this capacity and capability could be developed and monitored by leaders in schools. This second element of system capacity is presented next.

## (2) Leadership and monitoring of pedagogical expertise

Having focused on the capacity and capability-building of pedagogical expertise, the second element of Finding 6 established systems and routines to constantly monitor and feedback on teaching practices in schools and across the system,

*...if a system is led by the right drivers then instructional leadership will be seen as something that is key to delivering what those outcomes are in a crisply articulated vision for the nation.*

(Wider System Leader 01)

Once established, pedagogical expertise was further supported by deliberately designed strategies to ensure its on-going development. The importance of this was emphasised as a key message of the LCL Project, explicitly modelled during the immersive in-person training sessions and designed as a practical tool of the project. It was, therefore, a distinctive feature of the LCL Project design,

*...Monitoring...modelling and... working alongside teachers and teacher leaders as leaders ...to ...really assess quality teaching and learning in every classroom and then monitoring it....*

(External Facilitator)

Leading *and* monitoring effective pedagogical practices was an essential component of Instructional Expertise. It was understood by participants as a fundamental skill for all positional leaders,

*...it is about improving the quality of teaching and the quality of instructional leadership. So, in a sense, it's making sure, and it's, I suppose it's the other way around – we need to ensure that our leaders are, you know, good instructional leaders, so they know what's going on in their schools, in their classrooms, in order to inform the professional learning and support for the staff, therefore, to improve the quality of teaching and learning...*

(Regional Lead 05)

This monitoring process was the responsibility of every person in the school, but particularly, it was the duty of every positional leader. They needed to ensure that they knew what was happening in their classrooms and could assess and support this,

*...if every teacher is a leader of learning, then the headteacher must also be a leader of teaching and learning ... first and foremost, it's about what happens in the classroom and how do people get to that point...*

(Wider System Leader 01)

The practical tool of 'Learning Walks & Talks' (LWT) was specifically designed to support the leadership and monitoring of teaching and learning in an immersive and systematic way. Its modelling was central to the experiential in-person training session in the second training week of the project and identified as a powerful way to assess the quality of teaching and learning,

*...But that live, in [name of school] ... going round there was absolutely, probably the bit that made it, you know. [External facilitator] was fab...the work with [external facilitator] and she was modelling it with us...*

(Challenge Adviser 03)

*...that focus of a learning walk, and maybe next week, the learning walk focus changes to be something different – that was a really interesting takeaway and I think it's something from the process that I think all schools – all schools...So, I think the... taking away from the current process, doing learning walks for a reason...*

(Regional Lead 03)

*...having that opportunity to take them into a school and to walk and talk with [external facilitator] and to be coached in that approach, those questions that she uses around learning walks and talks, I think ...will be really powerful...*

(Regional Lead 05)

An integral aspect of the LWT tool was the ‘5 Questions’ protocol that leaders and teachers asked when undertaking LWT,

*I think student work, if we can talk in terms of students’ growth and achievement – how they know - what’s the evidence and I guess I would be hoping they would talk about students’ work. And... students answering those five questions of learning walks and talks. They’re the questions, there aren’t any other questions, actually.*

(External Facilitator)

The positive impact of this tool became evident where system leaders reflected on how they had adopted it in their own system-wide work to support schools,

*... people often don’t know what to do on a learning walk, so we’d started introducing it ...so that we were using the five questions that ... [external facilitator] developed with her learning walks and talks. ... we were starting to model that and ...started developing little cards with ... five questions about asking the pupils ‘What are you learning?’ ‘Why are you learning this?’ ‘How are you doing?’ ‘How do you know?’ ‘How can you improve?’ and ‘Where do you go for any help?’...*

(Challenge Adviser 03)

Leading and monitoring pedagogical expertise was a distinctive and critical aspect of this finding, enabling it to be part of the building system capacity-mechanism. The distinctiveness of this finding was the way in which it was fully integrated with the practical tools designed to systematically monitor the quality and extent of pedagogical expertise during its implementation.

The third distinctive and similarly integrated element of this finding followed naturally from the first and the second. First, the increased pedagogical expertise was developed and applied. Second, it was monitored and assessed in daily practice over time. Third, the systematic monitoring processes identified patterns and highlighted practices. These pedagogical patterns and practices were then used to directly inform the design and delivery of professional learning in the school and/ or across the wider system.

This third distinctive element of Instructional Expertise is presented in the final part of this finding.

### (3) Leadership of professional learning

As part of the culture of the LCL Project, every training session started by clarifying the operating norms for the session. These operating norms modelled consistent ways to design and deliver practice-informed professional learning programmes for all practitioners,

*...as we always do in professional learning sessions and in lessons...*

*...creating a culture of learning...*

*...start with data every time we meet together to learn...*

*...I will be successful if you can...*

(External Facilitator – webinar sessions)

*...but how do I deliver that effectively so that all my staff, all my teachers are part of this learning in the organisation, and not just the deputy that's leading on teaching and learning...but they're all part of this action research and in contributing to it. Because a lot of teachers will say, 'Well, when am I meant to do that... on top of everything else, do we really?' ... so, it's building it in and bringing teachers with them in small chunks slowly into that you know, that research element and action research in the class... so that element, really.*

(Challenge Adviser 03)

Leading professional learning in the LCL Project established a school and system culture with a shared and common *belief* in the importance of professional learning,

*I think it's about culture. It's about school culture ... we've got a variety of schools involved directly in the programme and their responses initially were quite different. Some were saying, ...'there are some things here that we've forgotten, that we don't do anymore, that we need to return to because they're really sensible and they will*

*improve teaching and learning’ ... so I think it’s all about school culture, isn’t it?... and that’s exactly what we said to them when they came into the project and that’s what [external facilitator] said, ‘...don’t take all of the work necessarily, but take those key bits that will really support you in your improvement journey’ and so I think, you know, the culture of the school makes a massive difference...*

(Regional Lead 05)

In this culture, *norms* were established for teachers and school and system leaders to work together,

*So, you’ve got a staff who are not afraid to take risks, who are willing to experiment with pedagogy, who are willing to collaborate, who are willing to have an open door, who are willing to undertake action research, which is based upon sound reading...*

(Challenge Adviser 01)

Finally, the LCL Project culture established processes for school structures and systems to be directed towards investing in *opportunities* for practitioners and leaders to engage with evidence-informed, collaborative and reflective practices. These were singularly focused on securing, increasing and monitoring pedagogical expertise,

*[...knowing] what we’re doing [and] why we’re doing it – how would it look? Let’s develop the success criteria ... I know at secondary level, we’re so pressurised on time, but there’s a lot of gaps missing because we plough on, get the GCSE and A Level coverage done, but perhaps we’re not going back to basics ...that’s one major thing that came up for me, and... that’s probably when it came to professional development, is the one area that we probably do need to develop in our staff...*

(Challenge Adviser 03)

The training sessions in the LCL Project explicitly explained and modelled methods to deliver, lead, and monitor the capacity of schools to increase pedagogical expertise through



professional learning. The training pedagogy used throughout the project in both in-person and remote training sessions, was frequently made explicit with the invitation to all participants to reciprocate the structure and design of the training in their own settings,

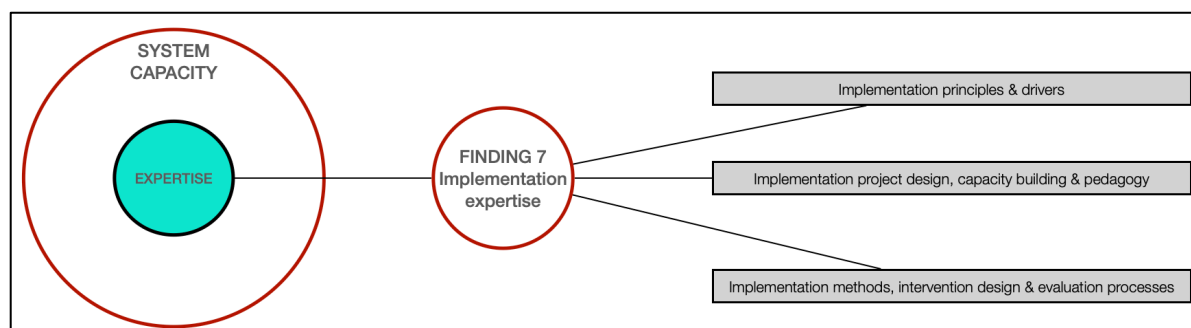
*...so, what I've been trying to do is model the processes that I would expect the leaders and school leaders to model and then of course monitors follow-up...*

(External facilitator)

This was accompanied with the practical, experiential, and explicitly modelled practices and practical tools as a distinctive and integral feature of the mechanism of this finding and its role in building system-wide capacity of 'Instructional Expertise'.

The features of the accompanying form of expertise identified in this research and is presented next, as the second of the two emergent findings and forms of expertise, that of, 'Implementation Expertise'.

### Finding 7 – Implementation Expertise



Initially, implementation emerged through inductive analysis, as a distinctive feature (sub-theme) of the broader theme of **change** from the conceptual framework.

It became apparent, however, that the frequency of its occurrence in the data required its re-categorisation.

As an emergent theme, 'implementation' was defined in this research as:

***'Implementation'*** - Factors required when adapting and/or/ adopting any intervention as part of school improvement and leading change efforts.

*Implementation includes the practical tools, approaches and strategies used as the methodological processes of school and system improvement strategies.*

*Implementation processes that are relevant, contextually sensitive, and adaptable.*

*Implementation processes accommodate and respond to diverse needs of settings and contexts and are responsive to the organisational and individual priorities that support schools and system leaders to enact improvement and lead change.*

First, it was categorised as a single, main theme, and other sub-codes were merged into implementation as a new main theme. Following this, however, the distinctive features that emerged from the on-going and cyclical inductive data analysis identified it as a distinctive and powerful finding.

As a distinctive mechanism of system capacity, it comprised three interrelated elements or drivers. These three elements were identified across all data sources (*Table 9*).

*Table 9: Features of implementation (principles, project design, tools & methods)*

<b>(a) Implementation strategy principles &amp; drivers</b>	<b>(b) Implementation project delivery &amp; pedagogy</b>	<b>(c) Implementation tools &amp; methods</b>
14 Parameters framework	Collaboration	Contextual examples (international)
Assessment literacy	Knowledge brokerage	Contextual examples (local)
Effective collection and use of data	Engagement of Tiers 1-3 leaders	Student, teacher & leader voices
Co-construction	Blended learning	Assessment waterfall
Engagement (Tiers 1-3 Leadership)	X4 Regional Consortia	Bump it up Walls
Inclusion & equity	System leadership & learning	Case Management Meetings
Distributed leadership	Immersive training sessions	Co-constructed Success Criteria
Capacity building	'Live' modelling opportunities	Homework tasks
Pedagogical expertise	System coherence	Data Walls & Faces
Teacher leadership	Mixed school discussion groups	Learning Walks & Talks
Modelling	Boundary spanning	Instructional Intelligence
Monitoring	Policy alignment	Knowledgeable Other
Building common knowledge	Long-term (2 years)	Research
Enabling environments	Regular, immersive meetings	Relational Expertise
Relationships		Co-design

Evidence-informed		Co-leadership
Learner focused		Co-delivery
Relevance		Explicit modelling
School AND system improvement		Meta-learning
System leadership & learning		Knowledge sharing
Systems-thinking		
Change leadership		
'All voices heard'		
Shared responsibility		
Continuous learning		
Sustainability		
Professional learning		

The three distinctive and interrelated elements or drivers of 'Implementation Expertise' evident in the LCL Project were:

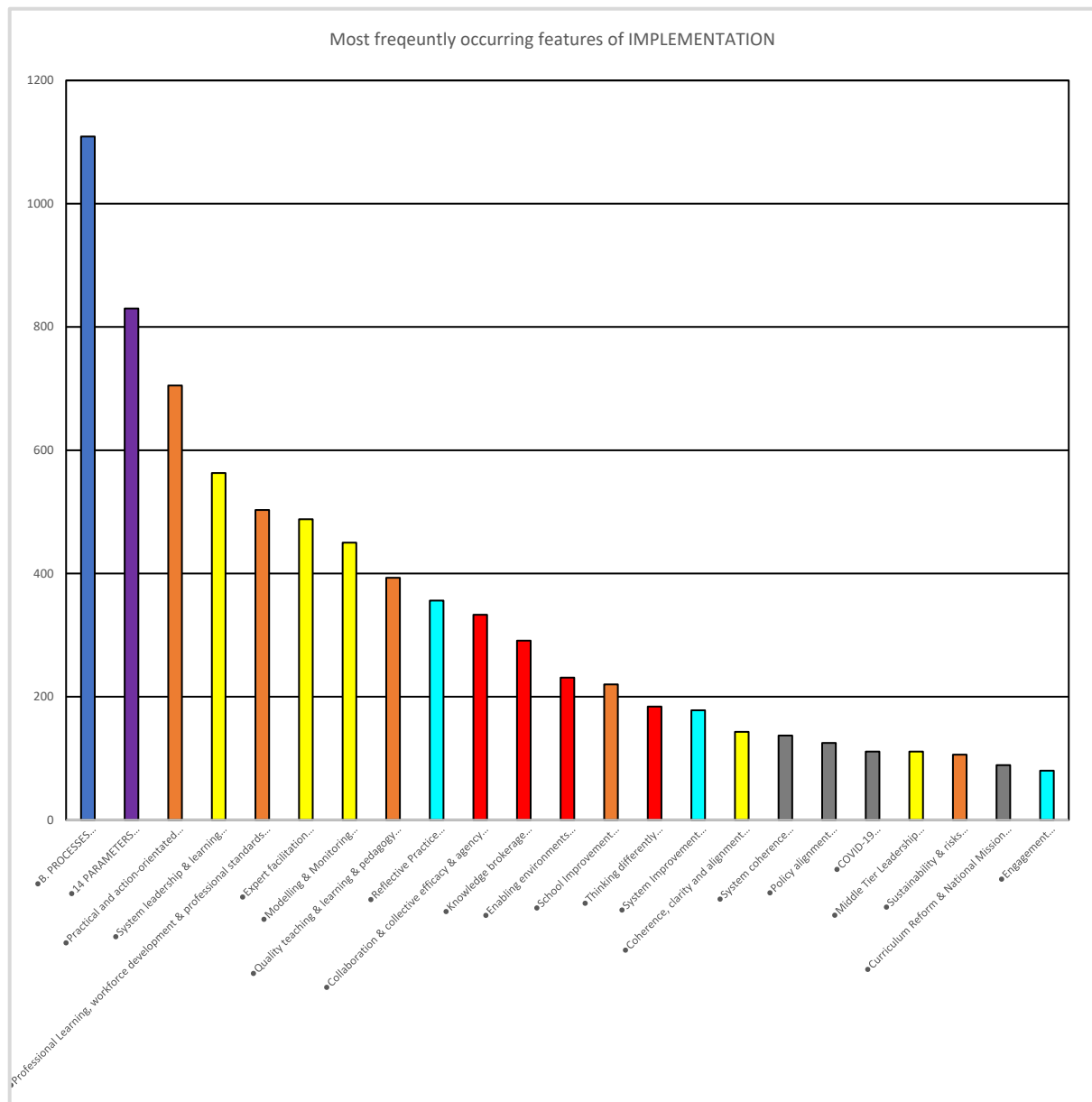
- (1) Principles and drivers of implementation** – the 'why' of the implementation processes, its rationale, stated intentions, and the drivers of the project/ intervention/ programme/ policy.
- (2) Delivery processes and implementation pedagogy** - the 'how' of implementation design of the project/ intervention/ programme/ policy – the methods selected that would build capacity, content-related expertise, and lead sustainable system-wide change processes.
- (3) Implementation tools, methods, measures, and evaluation processes** – the 'what' or content of the project and the design and focus of the specific project/ intervention/ programme/ policy. These implementation tools included:
  - (a) methods to document any initial, emergent, or medium or long-term outcomes of the project/ intervention/ programme/ policy*
  - (b) tools to capture the impacts/ success criteria to look for evidence of the project/ intervention/ programme/ policy in practice*

*(c) evaluation and accountability methods for the implementation process in its own right*

The finding of 'Implementation Expertise' reflected the distinctiveness of the change processes of the LCL Project.

The frequency of the occurrences in the data of the practical tools (Purple in *Figure 32*), occurred second only to the frequency of the occurrences of the general category of processes (Blue in *Figure 32*) across all data that was related to the re-categorised theme of 'Implementation'.

*Figure 32: Distinctive occurring features of the implementation process*



### (1) Principles and drivers of implementation

The first distinctive element of ‘Implementation Expertise’ was participant engagement. This was a core driver of the LCL Project. Achieving buy-in was recognised as critical for the implementation of any of the LCL Project training materials, adoption and understanding of the content and/ or the practical tools and processes of the project,

*I think the limitations are not only teacher buy-in but leader buy-in at every level... this is probably the one area that I persevere on, ‘how am I going to get buy-in?’...*

*and we know that in implementation, there's a continuum of commitment and so ... I think that's the difficulty of not seeing the big picture – the forest and the trees – being on the balcony and on the dance floor at the same time...*

(External Facilitator)

*It's how to make them sufficiently embedded – it can only come through the engagement of SLT and ...it can only come through the engagement of you know, those people delivering professional learning...*

(Challenge Adviser 01)

*...I think – those who bought-in immediately brought a whole raft of people potential – two or three real key people along with them...and once you have I think two or three or four potentially key people from the same school engaging with this, then they're all able to see their roles within the work and they can then take that back to school, so I think we'll see probably differential impact in different schools, depending on how well they've ...they've engaged and built it into their planning too.*

(Regional Lead 05)

Participant engagement was also critical to implementing the delivery strategies, logistics and organisation of *collaborative* professional learning as a mechanism of building system capacity in the LCL Project,

*...I think there's loads of, loads of bits of work that we can do around this – as I say, it's definitely influenced us as a team but ...the important thing was we made sure all of our key people attended the sessions ...from our perspective, our people...and within our organisation, who have been and experienced it certainly the ones that came and did the learning walks and talks with us ..., it just, it just made sense to them, you know, in terms of their work and where it fits.*

(Regional Lead 05)

*...linked to that is obviously, individual responsibility, that sense of engagement and a sense of you being active in the process... with experience over time and I think that's*

*an important part in the design of the project then and, you know, one of the important processes in it...*

(Wider System Leader 02)

The importance of participant engagement as a driver and principle of ‘Implementation Expertise’ was referenced in discussions about the original co-development process of the Welsh SLO Model. This underlined the importance of school and system leaders engaging in co-creation as part of system-wide implementation processes,

*...it’s almost like a ...journey from a theoretical model to something very practical and I think part of the strength of that is because the model was already quite practical in its design [and] very much action-oriented...*

(International SLO Expert)

Another driver and principle of this finding was contextualisation. This was primarily concerned with contextual sensitivity. In the LCL Project, system and school-wide improvement processes, professional learning, and practical school improvement tools were specifically tailored to the context(s) in which they were delivered, echoing the way in which the Welsh SLO Model was developed,

*...I think a simple answer to say I think SLOs ...can develop seemingly in many different contexts, but I think as a pre-condition that it should be very much a model which is tailored to the national context... I would never be a person for example, from here...to demand that schools become learning organisations, only after from going on through a very rigorous exercise of tailoring it to the national context, I think does such a model have a chance of developing. I think there’s much more a step of schools can develop as learning organisations but basically further development and to make sure it becomes sustainable...*

(International SLO Expert 01)

*So, there's been a significant amount of training of schools on Schools as a Learning Organisation, relying heavily on Welsh Government's guidance, but also how they interpret it within their geographical region...*

(Challenge Adviser 01)

This contextualisation was a distinctive feature of how the LCL Project was originally conceived. It was tailored and refined to meet the needs of the specific schools and was sensitive to the wider context of the LCL Project cohort.

This contextualisation allowed refinements and adaptations to be made and accepted into the design, content, delivery mode and structure of the training sessions and resources selected. This ensured that the key messages and practical tool remained appropriate for the local, regional and national contexts at specific moments in time,

*I needed to be very responsive and sensitive ...to that [national context] ...not only the language...environment but also ...and I was always thinking about words ...*

(External Facilitator)

Following contextualisation, participant engagement was a principle of the implementation expertise of the project. This encouraged teachers and leaders to engage with wider research, examples of practice from beyond their immediate settings and use this as evidence to inform their implementation of any new practices or ways of working,

*...they have to really engage with the research first to get a good, academic, you know cognitive understanding of it before they actually put anything into practice – that they've thought about it, reflected on it and then trial...*

(Challenge Adviser 01)

This located the use of research and evidence-informed practice as a driver and design principle of implementation,



*Give us some research...where are you stuck in terms of ...anything in your school – it could be wellbeing, it could be achievement it could be around something, whatever it is, and let us come back, do the heavy lifting around this and let us come back and start exploring what that might look like for you as a school or a group of schools. So, it's connecting all those pieces up...rather than it being everybody running off and doing their own thing in their own little space... either in a school setting, between schools or between various educational settings – so it could look like that.*

(Wider System Leader 01)

*...we draw on evidence-based research, that's what we would do, but actually, we're trying to draw in some of the strategies that [name of external facilitator] talked about in terms of the... project. So, ...we use a lot of those as our underpinning ideas when we start with the development of this work.*

(Regional Lead 05)

Another principle and driver underpinning 'Implementation Expertise' was equity. Equity was a distinctive feature of the rationale for the inception of the LCL Project. This was reflected in its commitment to ensure that the knowledge it shared and the new knowledge it generated would reach all staff and, therefore, benefit every learner in the Welsh education system,

*We've got a couple of principles which we ... align to and ...one of those principles is ensuring the development ... ..and ... for leaders to pursue ...opportunities made available to them in whichever part of the career model that they're in, which is whatever their leadership level is ...and enabling equity of access ...wherever you are in Wales, whatever your leadership level is that you have the opportunity to engage in those development opportunities...*

(Wider System Leader 02)

*I think all of them now have developed a vision which is centred on the learning of all students and is inclusive and that they understand that in order to attain successful student outcomes, in a holistic fashion, where students become independent lifelong*

*learners, then the basis of that is a continued staff development which is of a high quality and it's an enquiry-based research, evidenced approach.*

(Challenge Adviser 01)

*...and it was always very, very important to me that I was, you know, working alongside the staff as well...as well as leading them. So 'Principal as Lead Learner' really resonates ...and, you know, the FACES on the data...that was something ...that we had been doing in...a less structured and less focused way ... for a while, so it's... just really good when you hear somebody speaking...of such principles as these and...such an important suggestion for moving forward that you can see are common sense and manageable, and all about equity.*

(Regional Lead 04)

Having such clear design principles and drivers embedded in the implementation strategy and processes of the LCL Project was a distinctive feature of the mechanism of 'Implementation Expertise' to build system capacity.

#### (b) Implementation project delivery – implementation pedagogy

The second element of 'Implementation Expertise' was evident in the pedagogical approaches used to deliver and mobilise knowledge during the LCL Project.

Deliberate and explicit modelling of practical tools and consistent key messages were evident in the project content. This was enhanced by the deliberate planning and design of the delivery of the training sessions.

Specific attention in the LCL Project was paid to how sessions were delivered, supported and followed up, and how the impact of these sessions was assessed in project participants' own schools and system leader teams,

*...because if you go through the process of all of this, you develop a thinking workforce, you develop a collaborative and collegiate one...and they're open to*

*international evidence ...we're not the first country to put out together a new curriculum, you know...so if you're open to, to evidence and enquiry...you begin to know how other people have tried it and how it works.*

(Wider System Leader 01)

The training pedagogy of the LCL Project focused, first, on modelling the delivery of collaborative professional learning sessions so it could be replicated back in schools and teams,

*...when I'm thinking about these processes, I'm thinking about professional learning sessions for teachers and leaders. These are the components – the processes...and then the discussion at the end of every session ...'What are our next steps? Who's going to champion what? What will be the date?' You know...an action plan... and then there has to be integrity on part of the leaders who lead professional learning sessions to come back to that...*

(External Facilitator)

*...so, we need to make sure that professional learning is given a much higher status than it has ...in the past and in order to do that, this is not about money, this is not about throwing money at schools, this is about providing real opportunities and headspace for people to be able to do this...*

(Wider System Leader 02)

The design elements of the LCL Project required school and system leaders to build their familiarity with and increase their trust in the practical tools. This was done through immersive and experiential learning opportunities and by setting 'homework' tasks so participants could apply them in their own contexts.

This meant that project participants saw how they worked in their own settings, importantly, with their own staff and students.

This immersive and experiential pedagogical model formed part of the contextualisation process during the in-person and remote training sessions,

*We were able to take the ideas out from ...you know the examples, ... they're able to interpret around that...it's always useful to see and hear the context you're working in.*

(Regional Lead 04)

This immersive pedagogical approach to implementation was familiar to those involved in the earliest co-development phases of the Welsh SLO model,

*...really the...weakness of any model, if we stay theoretical, I think we've really basically missed it ..., I think if people are running forward with it, and have the ownership and the enthusiasm and I had the pleasure of being in several of these conferences where there's 4-500 people and there's people presenting how did they take this forwards, how did they interpret the schools as learning organisations and use it to drive their school improvement journey?*

(International SLO Expert)

Sustaining engagement in the professional learning processes over the first two weeks of in-person training sessions in the original project design, and again, over the duration of the 10 remote webinars was a distinctive feature of the implementation expertise evident in the LCL Project.

This was achieved by the careful design and inclusion of discreet opportunities for participants to share their experiences and insights on the new knowledge gained from the project.

First, they used this time to refine and tailor the LCL Project materials to their own teachers' and learners' needs. Second, they were asked to trial and test the new approaches in their own settings, supported by their linked system leaders. Third, this was followed-up once more during the in-person training sessions in the original project programme, when they

were given the time and space to collectively reflect and, most importantly, *connect* their thinking, experiences and ideas,

*...I think anything that connects different lines of improvement and different initiatives or projects as schools would perhaps see it ...has got to be good. Anything you know that makes that connection strengthens your case, doesn't it? I think...the whole push of schools for...schools as learning organisations...I think, yes...it's a fantastic idea to connect these ideas as far as possible.*

(Regional Lead 04)

This second element, implementation pedagogy, was a distinctive feature of the mechanism of building system capacity through 'Implementation Expertise' and was evident in all aspects of the design, delivery and refinements made to the LCL Project.

This leads into the final element of this finding. This is concerned with the evaluation and accountability of the implementation *strategy* itself.

### (3) Intervention tools, methods, measures, and evaluation processes

The third feature of Implementation Expertise evident in the LCL Project relates to the impact and sustainability of the practical tools, measures, and evaluation strategies that were deployed as a component part of the LCL Project.

This feature of the mechanism of 'Implementation Expertise' is specifically concerned with the continuity and consistency of the project. These relate to system capacity characterised by:

**Continuity** - the extent to which the new knowledge has achieved systematic and sustainable leadership and learning practices. New knowledge has been mobilised with fidelity, whilst distributed leadership practices ensure resilience within and stability across the system.

**Consistency** - the extent to which implementation has resulted in and/ or maintained alignment with the policy context. Here, implementation strategies are measured against the extent to which they reflect and adhere to shared policy aims, develop system-leadership practices, and ensure that system leaders facilitate system-wide learning with integrity and credibility.

The design of the in-person and remote training sessions in the LCL Project intentionally developed and built leadership capacity for school and system improvement. This involved leadership *and* monitoring of change,

*...there are tools in [the LCL Project] to really support leadership as absolutely the main stay to system and school improvement...*

(External Facilitator)

All the training sessions in the LCL project were purposeful and practical. The pedagogy of the training sessions explicitly modelled *how* to implement the project approaches, *how* to design and lead professional learning, and how to use the practical tools,

*...when I'm thinking about these processes, I'm thinking about professional learning sessions for teachers and leaders.*

(External Facilitator)

This approach aided implementation by giving participants immersive learning experiences whilst concurrently engaging in a live professional learning programme. The real-life examples shared and the opportunities for project participants to use the practical tools in-context, and allowed them to set realistic goals for their own settings,

*But at the time, a lot of teachers couldn't see where the link was between the questions actually what does that actually mean ...in reality? So, success criteria, sharing success...WAGOLLS and sharing you know, examples ...as I said before – the third teacher. That there's examples on, you know – 'bump it up' walls, so, I think we still had a lot of work to do with teachers about, 'Okay, what does this actually*

*mean in our classrooms?’ And... “What does that mean about your practice?’ It doesn’t mean you having to work for hours – it means you co-constructing things a lot more with children and bringing them along with you...*

(Challenge Adviser 03)

The training pedagogy was underpinned by an immersive professional learning model. This prioritised experiential learning as a distinctive feature of the implementation approach within the LCL Project,

*A lot of the [Challenge Advisers] who were alongside me just thought that that was probably one of the best training sessions we’ve had in a very, very long time. As I said, it was, you know, live, trailing things, having professional conversations with teachers at school, with [External Facilitator], with other [Challenge Advisers], and being able to then bring that back to, for me..., and actually starting to sort of develop it within our schools and governors.*

(Challenge Adviser 03)

The in-person training sessions were all designed around modelling and sharing multiple examples of the practical school improvement tools in action,

*Monitoring...modelling and...modelling. Working alongside teachers and teacher leaders as leaders ...to ...really assess quality teaching and learning in every classroom and then monitoring it through ...regular ongoing Learning Walks and Talks in classrooms. So...I think leadership needs to be ... overt and maybe covert as well... but...there are tools in Clarity to really support leadership as absolutely the main stay to system and school improvement...*

(External Facilitator)

This modelling was particularly true of the training sessions that demonstrated the practical aspects of the specific LWT protocols,

*I think there was a deepening in understanding of what was trying to be achieved and I think that the clarity came with the Learning Walks and Talks ...*

*I think to begin with, I think schools struggled to see how it fitted with their context that...whilst they didn't debunk any of the strategies that [external facilitator] was suggesting, I don't necessarily think they could see it ...within their practice or as something they could easily assimilate into their practice, but I think by week 2, that had changed...and ...the guidance around learning walks and talks and collaborative coaching opportunities...on...how you carry out a much more formative feedback approach to teachers on ...their lessons through lesson planning – I think that ...landed at exactly the right time...*

(Regional Lead 02)

*But her work is valuable. So, for example, I've taken a part of it and used it in my work, so I've talked with schools that I've got the ...classroom learning walk – you know – it's so simple the way she does it ...I find that [external facilitator]'s approach far more practical – far simpler ...and two of the schools have adopted it into their criteria, you know, for conducting learning walks...*

(Challenge Adviser 01)

The LWTs were supported by a script of the 'Five Questions'. This made links across the entire suite of practical tools in the project. These were integral to the practicality and applicability of the resources shared during the training sessions. Notably, these were used to (1) diagnose the impact and effectiveness of the professional learning programme and (2) to use this diagnosis to inform and shape the content of the professional learning programme, tailoring it to the specific needs of learners. As such, the '5 Questions' was a dual self-evaluation and developmental tool for leaders and teachers.

In the same way, the underpinning school improvement framework of the '14 Parameters' was a guide and a self-assessment tool to assess the success of the implementation of new knowledge. These were further supported by the practical tools and training pedagogy integrated into the immersive professional learning in design of the LCL Project,



*... with those 14 parameters..., then...their school development plan ...and the work that they are doing if it's focused on the 14 parameters, you can't go wrong really...there's so much common sense there, there's so much basic stuff there but it's taking it back to that because schools are bombarded with so much stuff, aren't they, you know?*

(Challenge Adviser 02)

*I delivered it back, I shared it at our CA meeting... I came back – you'll laugh...but they've all got these little cards you know and ...at the back, it says, 'What does it mean?'. So, I took them through that element and as [Challenge Advisers], we all agreed that in the Spring term, this was actually a really important focus.*

(Challenge Adviser 02)

*...one thing which I would say if ever was a possibility was that day at training in a school again, you know, it was ... just so positive, and I wonder is that why ...we were all positive about it `? `Because it started us on the right foot? ...You could just take it back, you know, because quite often if you just sit there and listen...but you go back to your day job. But because we tried it and you processed it throughout the day, when you went to the next day, you were ready to pick it up again. Does that make sense? But that live...going round there was absolutely, probably the bit that made it, you know?*

(Challenge Adviser 03)

The practical tools and experiential learning opportunities maintained a focus on targeting the project at improving the quality of teaching and learning by all practitioners, for all learners,

*...there's such a strong focus, it is the main focus on teaching and learning, isn't it? So, ...that really ...it just came to my attention really that it was so important because it's the basis of the stuff that schools are all about, you know, ... so I joined ...to work with them collaboratively ...and the principles that ...we're looking at with [this] work, I have*

*taken back to the team ... ..because we're looking at teaching and learning and trying to keep it as simple as possible, but with those 14 Parameters...if schools concentrate on those and that's what we have discussions in the team as well, if they concentrate on those, then ...their school development plan... ..and the work that they are doing if it's focused on the 14 parameters, you can't go wrong really.*

(Challenge Adviser 02)

*...to consider the fact that if you do a five minute learning walk and you are only focusing on the environment - children can't see the board, they can't see the...basically, they can't see the board, they can't see the posters on the wall, they can't see...so you're not thinking about teaching and learning ... So I think the...taking away from the current process, doing learning walks for a reason, 'short, sharp and shiny' is one of [expert facilitator's] phrases...*

(Regional Lead 03)

*...to understand and implement assessment literacy, that leads to responsive instruction. So, I don't even say 'differentiated instruction' anymore ...it's responsive instruction for each 'face'...The second outcome would be that leaders and teachers use data in various formats ...to continue to model and monitor students' growth and achievement and when I think about growth, ...achievement is the end point, but to me, growth is most important. And...the third outcome would be for people to understand what data sources are available...what data ...looked like in their contexts and understand ...that student work is data. So ...ultimately, I think ...the process around learning walks and talks needs to be embedded, that's another outcome, ... so that leaders and teacher leaders...are walking into classrooms and they're looking for specificity that's attached to their school improvement plan, that's attached to ...the Welsh Government's vision of Schools as Learning Organisations.*

(External Facilitator)

The remote sessions, too, systematically included input from system leaders, who modelled work from their own teams and shared emerging practices with examples (and direct inputs in the final webinar session) from the LCL Project schools.

## Section summary

This section of the chapter has presented each of the three elements of ‘Implementation Expertise’ that emerged from the data.

The first of these elements, clear and agreed principles and drivers of implementation were evident in the design of the LCL Project. The two forms of expertise therefore, when combined, facilitated the transference and mobilisation of new knowledge around the system and applied with fidelity to the original aims and principles of the LCL Project.

Second, the delivery and training pedagogy of the LCL Project was intentionally designed to build school and system **capacity and capability** across the system. Both forms of expertise were evident in the LCL Project’s design and delivery. Working together, they mobilised knowledge at scale. They acted together as interdependent mechanisms and ensured that knowledge was transferred from the initial training sessions to the LCL Project schools, into the system leader teams and across the three tiers of the education system.

Third, the LCL Project included a suite of specific practical tools and methods that supported the building of this capacity and capability. These tools were designed to ensure that learning from the project was **consistent** for all project participants and could aid the mobilisation of knowledge across organisations and teams in a sustainable and **continuous** way.

Finding 7, in its entirety, when complemented with Finding 6, ensured that the LCL Project, contributed to building capacity and capability across the system.

These two forms of expertise were located and supported by the distinctive features of the system conditions of Findings 1-5. The interrelated nature of all 7 Findings supported the momentum of the LCL Project, the transference of existing and generation of new knowledge to give the aims of the LCL Project every possible chance to succeed.

## Chapter summary

This chapter has presented seven findings from the study. Five of these findings identified and detailed the distinctive features of system conditions evident during the LCL Project. These system conditions encompassed pre-existing and developing features including, **change processes, contextual factors**, a diverse **project culture**, system **leadership practices** and **relational trust**. These features were distinctive to the LCL Project and, through the unique lens and analysis of this research, were evident in acting on and influencing the progress, design, and delivery of the LCL Project.

The final two findings presented in this chapter were two distinctive forms of expertise, **instructional expertise** and **implementation expertise**. These were evident in the design *and* delivery of the LCL Project. Both forms of expertise emerged directly from the data. When deliberately attended to and developed concurrently, these two forms of expertise mapped out the design of a robust implementation model underpinning the design of the LCL Project.

The final chapter discusses the implications of these findings for leading system and school change, in the domains of policy, practice and research. In particular, the opportunities posed by the implementation model that has emerged from this research is explored.

## Chapter 6 – Implications and Conclusions

### Introduction

This final chapter considers the implications and conclusions arising from this doctoral study. This chapter proposes that when combined, the seven findings form the basis of a new implementation model that emerged from the empirical data. This, it is proposed, is the **distinct contribution to knowledge** arising from this doctoral research (*Figure 34*). Further to this, the first part of this chapter explores the implications of this contribution to knowledge for educational research, practice and policy.

The first part of this chapter explores the implications for research, practice, and policy in relation to the seven findings and the application of the implementation model in real contexts. In this part of the chapter, the implementation model is presented in its original and purely conceptual form, reflecting how it emerged and was originally conceived from the data. The result is to present it in a novel and atypical way, in this three-dimensional form as an introduction to implications of this research for research, policy and practice (*Figure 33*).

Presenting the model in its original form liberates the findings and conclusions of this research from the limitations of the two-dimensional paradigm in which operational, strategic and/ or conceptual models and frameworks are typically presented. Moreover, by presenting the model in this way, the complexity and multi-faceted system from which it emerged and in which it is designed to operate is authentically represented.

Representation of the model provides valuable and unique insights into how it was initially conceived. This conception was subsequently developed into a more practical and applicable format, illustrated in (*Figure 34*).

This then directly informed the suggested next steps for the model presented in the second part of this chapter.

The second part of the chapter includes a series of suggested next steps for those charged with leading and developing the three interrelated areas of research, practice and policy within the education system. These next steps are directly related to the implications of the research, so focus on how the model could be tested and further developed in its own right, and, importantly, in real contexts across the wider system.

The suggested next steps are designed for those education researchers, practitioners and policy makers primarily concerned with developing and delivering system-wide school improvement strategies that have positive impacts for every learner, inclusive of every learner's backgrounds, needs, contexts and settings.

Finally, the third part of this chapter concludes the thesis as a whole. This conclusion acknowledges that the success of any implementation model can only be judged against well-designed and relevant success indicators. This final section of the chapter, therefore, proposes four success indicators that can assess the extent to which a system-wide implementation process has been successful. To this end, the conclusion of this thesis is that these four success indicators, are integral elements of the implementation model. As such, they should be applied (1) *formatively*, to highlight the strengths and fragilities of the implementation model in its own right and (2) *summatively*, to measure the impact(s) of both the implementation process in its own right, and the impacts of the research, the policy, and/or the practices themselves.

### A three-dimensional conceptualisation of the implementation model

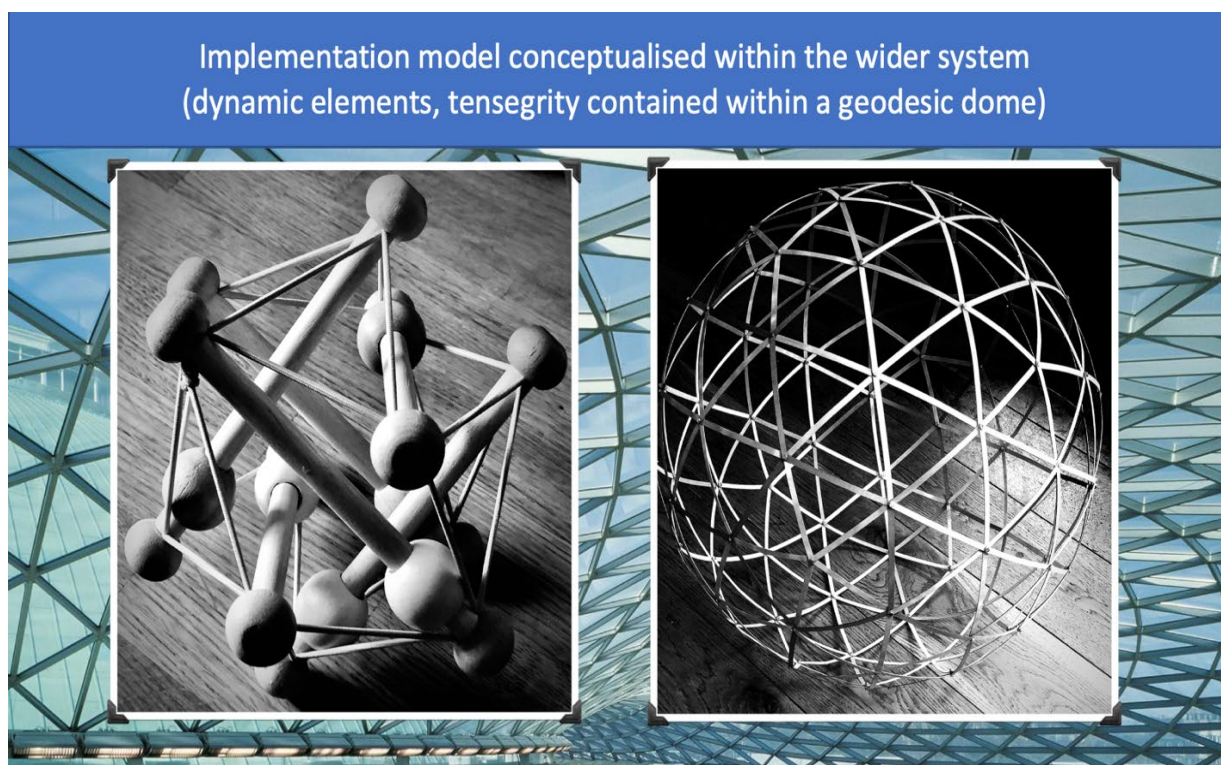
The next section of this chapter presents the implementation model in the format in which it was originally conceived.

As the data was captured and concurrently analysed, the specific characteristics of the five system conditions (**change, context, culture, leadership and trust**) and the two emergent types of expertise (**instructional and implementation expertise**) were identified as integrated elements of a wider, interrelated and complex system.

In order to conceptualise these elements, initially within the wider education system and then, in their relationship to each other, a number of three-dimensional models were used. These models were the most effective way to first, represent and second, consider the system conditions and the forms of expertise interacting within the wider system. At the same time, the models provided a creative way to explore how they might co-exist as part of a responsive and potentially resilient implementation model, with each of the elements working as component parts to create both strength and integrity as integrated parts of a complex education system.

The concept of ‘tensegrity’ (Snelson, K. 1996) was selected to best represent the complex nature of the implementation model (pictured on the left in the figure below) situated in the wider system (on pictured on the right in the Figure 33, below).

*Figure 33: Conceptualising the implementation model in 3-D format within the wider system using a “Skwish” toy and a Geodesic Shpere Construction Kit Geodesic Sphere / Dome Wooden Construction Kit*



The next section of this chapter explores the implications for research, practice, and policy in relation to the implementation model presented in this thesis.

## Implications ...for research, policy and practice

### (1) Implications ...for research

The implications for research arising from this thesis suggests that the design and evaluation of any complex, system-wide, educational research project should focus upon two aspects of the wider educational system.

Research design should, first, consider the distinctive features of the system conditions that are present and, second, gather empirical evidence to fully assess system capacity and capability. For research into any innovations aimed at improving schools and the wider system therefore, researchers should discover whether a model of implementation exists and if so, collect specific data around the process of implementation.

As noted already, this thesis has generated 7 findings and combined them into a new implementation model that it is proposed, has reliability and validity based on the data collected. It is proposed that this new implementation model could be adopted as a design framework for assessing and aiding the implementation of complex system-wide educational interventions. Furthermore, it suggests that any research design has to take account of the potential range of impacts and contextual influences that accompany any educational innovation or intervention.

As the evidence from this thesis has clearly shown, it is the process of **implementation** that is critical to the success of any educational intervention or innovation. It is posited, based on the findings from this thesis, that without a clear implementation plan or model from the start, any educational intervention or innovation, however well meaning, may well be left to chance and rely, instead, on the willingness of the system to engage with the change.

For future complex, system-wide, educational research projects, therefore, this new model of implementation offers a way of considering recent impacts, influences and contextual factors when researching the process of change (*Appendix 6 - 6.2 – Suggested considerations for complex, system-wide educational research design*).



The model also offers a set of important design principles that could be useful to researchers to navigate their way through complex educational interventions, at scale. By adopting this **implementation model** (*Figure 33*) as a design framework, researchers could capture distinctive elements of the implementation process consistently and concurrently. They would therefore be able to collect data on its constituent parts and by doing so, judge the depth and extent of implementation.

In the case of the LCL Project, for example, a common implementation framework could have very usefully informed the design of data collection tools and processes. Such an implementation framework could also have established a shared language for complex cross-organisational, system-wide educational research projects, thereby improving access to the evidence for policy makers and practitioners alike.

For researchers, the implications of these findings are clear, they suggest the need to establish a set of design principles based on a clear model of implementation that capture integrated delivery processes. These principles, informed by the contours of the implementation model should frame the design of data capture and analysis, hence making it easier to empirically record progress.

The findings from this research, therefore, highlight the importance of a highly responsive, coherent, and resilient system-wide research design framed by a common implementation model or framework that will accurately gauge impact.

Figure 34: Implementation Model

7 FINDINGS		Implementation model →	CAPABILITY Skills & expertise	CONSISTENCY Policy alignment	CAPACITY System leadership	CONTINUITY Systemic learning
SYSTEM CONDITIONS	Change		Build-in flexibility, adaptability in system infrastructures, organisations & teams	Policy and PL development reflects engagement with research to promote continuous learning & knowledge-seeking	Scenario testing Contingency planning and resource-deployment System-thinking	Clear progression pathways for practice-sharing (roll-out & scaling-up) Knowledge exchange systems in place
	Context		Demonstrate sensitivity and adaptability to contexts Knowledge & understanding of diverse settings	Adhering to and communicating shared principles, vision & purpose	Pressure point-awareness and responsiveness	Maintain staff stability & sustainable turnover Sustainability drives succession planning
	Culture		Establish opportunities for continuous learning and enquiry	Establishing norms of knowledge-sharing in leadership practices	Establishing beliefs & opportunities for sharing practice	Establish norms of collaboration and sustainable change
	Leadership		Distributed and positional leadership	Positional and system leadership operate concurrently	Teacher leadership moves practice-knowledge around teams, schools and system	Leaders of system-wide learning and practice-sharing collaborate at all levels, in all teams and organisations
	Trust		Credibility in facilitators and PL (content & processes)	Deploy relational expertise Build common knowledge	Develop relational expertise Energise relational agency	Move common knowledge around the system
TWO TYPES OF EXPERTISE	Instructional EXPERTISE		Develop and build pedagogical expertise	Sharing effective practice Shared language	Sharing effective practice & collaborative learning	Succession planning & policy alignment PL at all levels mobilises knowledge
	Implementation EXPERTISE		Expertise teams design implementation processes & planning strategies to accompany new policies & practices	Policy Standards Include expectations for system collaboration, practice-sharing and innovation	Develop leaders at all levels, manage time & deploy resources to mobilise knowledge around the system	Teacher leadership underpinned by knowledge (practice) transmission

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## (2) Implications...for practice

The implications for practice of this implementation model are bound in the centrality of locating professional learning as a central element of any school and system improvement strategy. These implications focus on the practical steps needed to build instructional and implementation expertise, located within the specific characteristics of the five highlighted system conditions.

Based on the findings from this thesis, the implications for practice of this implementation model are presented below as nine key action points.

- (1) ***Embed collaborative professional learning opportunities*** into all school/system improvement programmes so they operate as powerful knowledge exchange systems.
- (2) ***Adopt a ‘classroom-out’ approach to school improvement*** strategies to ensure change strategies are explicitly focused on sharing and increasing pedagogical expertise within schools and across the system.
- (3) ***Employ immersive and experiential professional learning pedagogies*** in collaborative professional learning programmes to maximise instructional expertise.
- (4) ***Utilise a variety of delivery modes and methods*** in professional learning programme design including in-person and remote modes, and methods that integrate practical, live-learning ‘gap’ tasks to be completed between contact sessions, accompanied by prioritising time for these to be reflected on collaboratively.
- (5) ***Design and resource sustainable, long-term*** professional learning programmes that intentionally build relational trust between participants over a sustained period of at least two years.

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- (6) **Use technology** to create on-demand *legacy resources* from professional learning programmes and opportunities and make these universally available as learning resources for system-wide professional learning communities.
- (7) **Embrace co-construction** approaches in the design *and* during the delivery of professional learning programmes and resources.
- (8) **Involve all stakeholders**, seeking out a variety of voices, expertise, and perspectives appropriate to the design, delivery, and evaluation of the programme and/ or resource.
- (9) **Re-purpose everyday practices** as diagnostic opportunities to inform the focus and design of professional learning opportunities for learners, the school, and the wider system.

This thesis demonstrates that the overriding implication for practice is the need to build instructional and implementation expertise. These implications determine the proposed next steps for practitioners when working with this implementation model, detailed in the next section of this chapter.

### (3) Implications...for policy

The implications for policy arising from this thesis also reinforces the importance of instructional and implementation expertise as the drivers of any successful reform. When attended to as part of system-wide policy and reform efforts, the evidence from this thesis shows that these two drivers can effectively mobilise knowledge around the system.

The first main implication for education policy is that attending to instructional and implementation expertise is essential to generate and consolidate new professional knowledge (*Figure 34*) as an integral part of school improvement strategies. It is worth drawing attention to how *Figure 34* deliberately locates these two forms of expertise in

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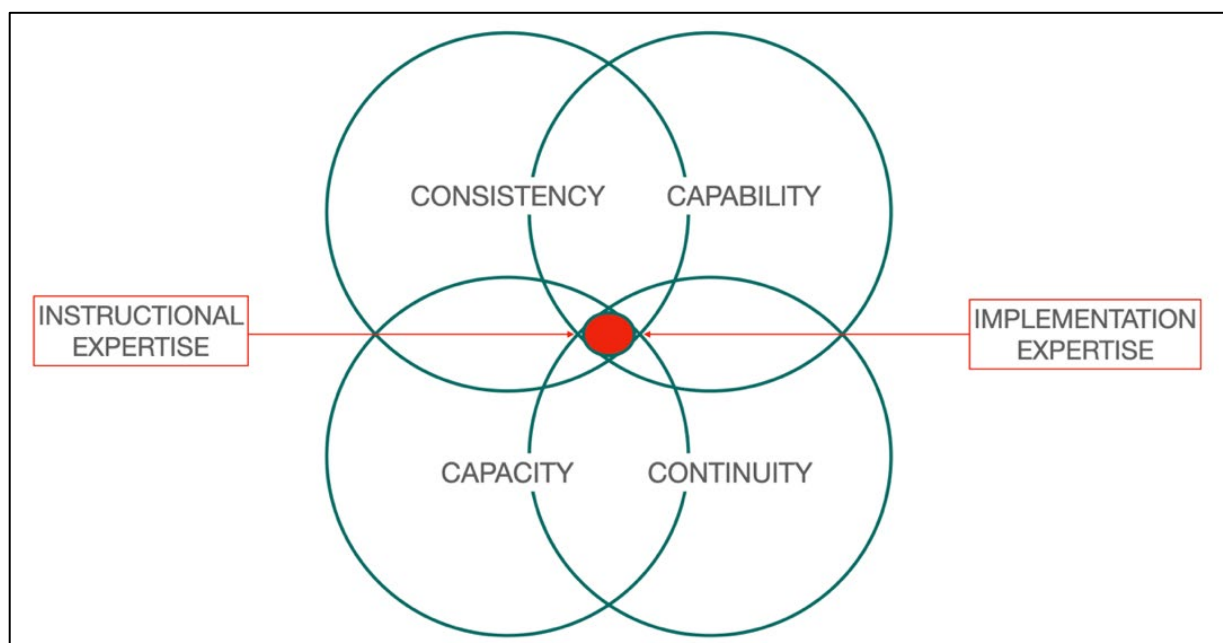
relationship to the proposed success indicators overarching the implementation model (Figure 33). These indicators are presented in detail in the concluding section of this chapter.

The second implication for policy relates to the development of leadership practices across the system. Knowledge of how to lead sustainable change throughout the system for all system and school leaders and practitioners, is a key contributor to effective implementation, as the data from this thesis showed.

These leadership practices were part of the collaborative professional learning culture of the LCL Project, where instructional and implementation expertise were pivotally important.

The third implication for policy concerns how these two forms of expertise, together, contribute to knowledge generation and mobilisation.

Figure 35: Interrelated nature of Instructional and Implementation Expertise located in the shared contexts of success indicators



As this thesis showed, instructional expertise was integral to the understanding of the specific pedagogical elements of the practical school improvement practices in the project. This was at the core of the school improvement intervention, and detailed knowledge and

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understanding of these were explicitly developed in the planning and rehearsal sessions ahead of the training delivery with the whole project cohort.

Implementation expertise, as the data show, was essential for the system leaders and project teams to tailor the practical tools to their own specific contexts and settings. Implementation expertise also maintained adherence to the core principles (14 Parameters) of the LCL Project and connected it to the wider policy context of curriculum reform, the Welsh SLO model, and to the individual school improvement plans and teaching and learning practices of the project teams.

The fourth policy implication is the realisation that a comprehensive understanding of the both the wider policy context and the specific elements of individual policies is critical to any successful implementation. Capacity building, increased capability, consistency, and continuity were all identified as key features of successful implementation in the data contained in this thesis.

The overall implication for policy from this doctoral work, therefore, is the importance of policy being designed with the inherent ability to scale-up and implement projects that impact positively on practice across the system. Typically, the success or failure of education policies will be judged on the impact and sustainability of their implementation and what follows from this. In other words, how well new knowledge is communicated to the target audience and whether any meaningful change happens, and who for is critical to be able to identify demonstrable improvements for all learners in all contexts.

This thesis argues that any truly successful implementation, therefore, relies on mobilising, embedding, and sustaining the sharing and generation of new professional knowledge across the system that benefits all learners, regardless of context, setting or school.

This findings in this thesis underline the importance of affording sufficient time and resource to the implementation process ahead of practical action to allow the knowledge to *move around* and be absorbed across a complex and far from homogenous system. This time and

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resource needs to be regularly revisited once implementation is underway to be able to respond to any unforeseen challenges and changes encountered. This commitment to effective implementation demands a delicate and complex balance to be achieved by all those involved the knowledge-sharing and change-processes. This balance requires the careful and sensitive orchestration to ensure that the pace of change, capacity, contextual sensitivity and professional capability remain in harmony throughout. Such harmony requires regular references to some form of success indicators as the implementation process rolls out.

The OECD working paper (2020a) has explored the possibility of implementation indicators for education systems, offering the following caveat,

*...such high-level indicator frameworks constitute a starting point but should not be substituted for indicators more tailored to the specific needs of a policy, as they may not be detailed enough to inform precisely on the implementation process, or only be loosely relevant to stakeholders expected to monitor and use them to inform decision making.*

(Gouédard, 2021)

If this is the case, then the tailoring process suggested by Gouédard (2021) may well offer one way of measuring the implementation of policy into practice.

The findings from this thesis suggest that for such indicators to work, policy makers need to be first, aware, and responsive to the characteristics of the system conditions required for successful implementation, and second, they must be totally committed to investing in the expertise to establish them. The second section of this chapter propose a number of concrete next steps for researchers, practitioners and policymakers within this implementation model.

Next steps for the implementation model...for researchers, practitioners and policy makers

The worth and weakness of *any* model is only truly discovered in its testing in practice. This implementation model is only of real value if it can withstand the pressures and stresses of

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real-life contexts. There is an inherent danger in the presentation of any heuristic model, whereby any effective communication of what the model is and how it is intended to operate necessitates an attribution of elegance and neatness which, in reality does not reflect the complexity of the model itself and certainly not the complex contexts it may be applied. This chapter recognises that both the three-dimensional conceptualisation (*Figure 33*), the two-dimensional presentation (*Figure 34*) of the implementation model and the representation of the two forms of expertise contextualised within the four success indicators (*Figure 35*), are limited to illustrating the content and interrelated elements of the model. Education research projects, school improvement strategies and policy reform initiatives are located in the messy, unpredictable typically imbalanced social world. As such, this thesis proposes that this model should be used to offer reference-points and guidance in implementation processes, rather than a be interpreted as a 7-point plan for researchers, practitioners and policy makers to adhere to.

Further to this, one potential criticism of this model could be that it merely reflects a series of normative statements, supported by rules and standardised procedures. In response to such criticism, however, the depth and detail of the empirical evidence presented in this thesis offers a robust counter to this.

First, the *derivation*, of the model comes directly from the data. Second, the *evolution* of the model was entirely informed and shaped by the data. Furthermore, the use of the three-dimensional conceptualisations, made sense of, and generated meaning from, the data. This lays to rest any challenges that the model was pre-imagined ahead of the data collection and analysis and guards against attempts to reduce or simplify the model into normative statements. This thesis demonstrates that the data remained central to the formulation and development of the model, and not pre-imagined ahead of the data collection or superimposed on the analysis.

The implementation model expresses the complexities and the flexibilities of the system form which it emerged. In doing so, the model addresses a system-wide paradox - the need to embody responsiveness whilst retaining integrity - when encountering the multiple influences



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of change, culture, context, and the often-fluctuating capacities of leadership and trust inherent in all real-world social contexts. The strength and novelty of this implementation model, therefore, is in how it embodies flexibility, versatility and complexity. It is not fixed, rigid or simplified. It is this that allows its applicability to a wide variety of change processes and contexts.

For researchers, practitioners and policy makers, therefore, there are clear opportunities for the further exploration and development of the implementation model presented in this thesis. These next steps for each of these are proposed below.

### (1) Next steps...*for researchers*

This thesis proposes that for researchers, the implementation model presented in the findings is a research-design framework in-waiting. Any test of its employment as a research design framework would examine the extent to which it could offer robustness, reliability and reliability for education research projects launched in any real-world contexts, but in particular, those characterised by significant turbulence and disruption.

As was true in this thesis, education research projects take place in real-time, in real-world contexts. With this, education research always brings with it a multiplicity of interrelated challenges, disruptions, issues and opportunities. These often relate to accessibility and ethical considerations for participants and their settings, unpredictable real-life challenges and unexpected opportunities. The implementation model in this thesis emerged from a research project where five dominant system conditions exerted a number of influences on the progress of the research in itself, as well as the study it was designed to explore.

Accommodations in response to the change processes in this research were enacted several times over in the research design. This was completed through multiple adjustments to the data capture plans, the delivery timeline of the project and the change in method-design and deployment necessitated by the system conditions experienced over the two years.

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A future development for research, therefore, would be to test the implementation model as a research-design framework. This would assess the extent that the research design allowed for multiple adjustments, external influences and real-life challenges could take place first, *well-ahead* of any such events occurring and, second, *dynamically* in direct and immediate response to unexpected in-time changes experienced during the study.

Testing of the model as a resilient, dynamic research framework in this way would reveal the extent to which the fidelity of the research, whilst accommodating changes and adjustments, can be maintained. This would be best suited to specific education research focused on identifying indicative features of the effectiveness and/ or sustainability any school improvement strategy and/or the design and delivery of professional learning programmes.

Such a whole-scale adoption of this implementation model as an educational research design framework would provide a robust test for the reliability, consistency and validity of the component parts of this model in its own right, and add depth and richness to the resultant research, particularly in ever-increasingly turbulent, unpredictable real-life scenarios more and more frequently encountered the 21<sup>st</sup> century.

## (2) Next steps...*for practitioners*

The implications of this implementation model for practitioners outlined earlier in this chapter directly inform the next steps proposed here.

First, by accommodating these implications, these proposed next steps for practitioners would support them to design robust and sustainable professional learning programmes located at the core of school improvement strategies. This thesis suggests that these next steps could provide equitable access to all practitioners to professional learning that has demonstrable and impact on the learning experiences, progress and achievements of *all* children and young people, inclusive of all contexts and settings.

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Second next steps for practitioners are to draw on the implementation model to directly design and organise any system-wide school improvement and, specifically, professional learning programmes within these. A test for the implementation model would be to explore its ability to design these system-wide programmes as collaborative, cross-regional and multi-setting professional learning programmes. Similarly, the implementation model could test the extent to which their design would be enhanced by the ubiquitous use of embedded technology, high levels of trust (in both processes and people), the distribution of leadership, the ability for the design to demonstrate sensitivity to multiple contexts and the extent to which these system-wide collaborative professional learning programmes were able to model a common language and approach to change leadership processes.

Practitioners with the instructional and implementation expertise identified in the model could test the strength of the features of the model in designing professional learning that is deliberately intended to bring about *system-wide practice* improvement. These next steps would therefore include tests of the implementation model to,

- (1) Meet the *intention* of the implementation model to promote system-wide practice improvement
- (2) Deliver consistent processes that sustain effective collaborative professional learning *processes*
- (3) Demonstrate *outcomes* for improvements in (a) practices of teachers and leaders and (b) learning experiences and achievements for learners, inclusive across *all* parts of the system.

These next steps for practitioners are to use this implementation to mobilise instructional and implementation expertise *across* the system to maximise system-wide capacity and capability that establishes systems of sustainable improvement.

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### (3) Next steps...*for policy makers*

The next steps for policy makers are shaped by the implications of the implementation model for policy outlined in the first part of this chapter. These steps focus on where and how to direct investment in the resources, capacity and expertise needed in the system, *ahead* of any school improvement or reform programme.

The next steps for the implementation model is to share it with policy makers to explore its ability to provide valid and robust diagnostic insights into (a) the five system conditions and (b) the depth of the two forms of expertise across the whole system both prior to policy implementation and during its implementation.

These next steps would use the four success indicators included in the implementation model to explore the *readiness* of the system in relation to:

- (1) **Capacity** - To what extent is the *whole* system *ready* to adopt this policy?
- (2) **Capability** – Where and what are any there any pre-existing *strengths and/ or fragilities* in the system?
- (3) **Continuity** – Once the policy implementation is underway, what pre-existing factors might *sustain/ pause* its continuance and sustainability?
- (4) **Consistency** – What pre-existing *variabilities* are there in the system that need to be attended to ahead of and during whole-system roll-out?

The proposed next steps for the implementation model is for it to be explored in real contexts by policy makers. This would explore the ability of the model in relation first, to identify pre-existing *capacities* to build upon and second, to diagnose any potential *capacity gaps* to address. The model would be used to explore these two elements of the system *ahead* of any initial policy implementation at the policy *design* stage, then again *at, during* and *after* the pilot stage and finally, *prior to, during* and *after* the full policy roll-out across the system.

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The proposal of the next steps for the model with policy makers is therefore, is to assess the resilience and fragility inherent in the implementation model to strengthen the bridge between policy and practice. In doing so, the model would offer a system-wide implementation map (that attends to resource, expertise, readiness, capacity and the five system conditions) for policy makers to employ an implementation process both at the *forefront* of school improvement policies and to use as indicators of progress and success to monitor the effectiveness of policy implementation in real-time and real, system-wide contexts.

## Conclusion

As with all educational research, this project took place in real-time and faced challenges that all such real-time research projects encounter. It is impossible to imagine the progress of the LCL Project, however, without the significant and long-lasting system-wide disruption of the global pandemic.

Further to presenting the distinctive features of this new implementation model, this thesis also suggests four key indicators of success to monitor and evaluate specific sustainability, reach and impact specifically, of the Welsh SLO model. If these are met, this thesis suggests, these indicators could be adopted as the criteria by which to gauge what is meant by the ‘successful’ implementation of any school improvement strategy and/or professional learning programme. These indicators are:

- (a) **Consistency** – policy alignment, system coherence, equitable access, shared aims and theories of change, common language, and practical tools.
- (b) **Continuity** – of personnel, teams, accountabilities, processes, whole system mapping and delivery methods.
- (c) **Capacity** – time, timings, momentum and pace, access to and deployment of resources, support, and challenge.

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(b) **Capability** – specialist knowledge, relational and knowledge mobilisation skills, adaptability, and system leadership practices.

As argued throughout this thesis, when deliberately attended to and combined, these features, identified in the seven findings of this research, are the tenets of effective implementation. Collectively, they form a new and robust implementation model, deriving their strength from the empirical verification in this thesis.

It is interesting to think about the nature and progress of this project if COVID-19 had not intervened. Despite the significant disruptions of the global pandemic, however, affecting the project from its earliest phases, the project was successfully completed, albeit in a different way (Harris et al., 2022b).

The completion of the LCL Project was a significant achievement on the part of the core project team and the external facilitator. The data show that one reason that completion was possible resulted from (1) establishing the five system conditions and (2) attending explicitly to developing and deploying specialist instructional and implementation expertise.

To conclude, the aim of this thesis was to explore how far the Welsh SLO model could be a catalyst for school and system change. This data from this thesis suggests that this is perfectly possible and significant progress has been made, in this direction, because of the LCL work.

Ultimately, this thesis has shown that to successfully affect change at scale, and to improve professional practice at the system-level, every programme, policy, or strategy needs to be accompanied by a robust, interconnected, and realisable implementation model.

## Appendices 1-6

### Appendix 1

#### Chapter 1 - Policy context

##### 1.1. The Welsh SLO Model

NB These graphics were created from the interactive PDF (available from the website link in footnote) and can be enlarged within this document.



##### 7 Dimensions and underlying elements of the Welsh SLO model detail (Zoom in to expand)



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### 1.2 Timeline of Welsh National Education policy publications

**2009** - Introduction of the **School Effectiveness Framework (SEF)** (W. A. Government, 2008; Welsh Government, 2009) following a year of piloting focusing on approaches to school self-evaluation and developmental approaches including the establishment of Professional Learning Communities in schools.

**2009** - **International PISA results for 15 year olds in Wales** published (Bradshaw et al., 2010). These showed that 15-year-olds in Wales scored below average on all three measures, and lower than the 2006 PISA scores. This prompted a statement from Leighton Andrews, AM, Minister for Children, Education and Lifelong Learning.

**2011** – The National ‘Twenty-Point Plan’ **“Teaching makes a difference”** (Andrews, 2011) launched in a speech given by Leighton Andrews, AM, Minister for Children, Education and Lifelong Learning. This presented a manifesto for education covering the priorities for the whole system.

**2011** – Publication of **Professional Standards for Teachers** (Welsh Government, 2011)

**2012** – **International PISA results** are published. These revealed a performance drop for 15-year olds in Wales below that of England, Northern Ireland and Scotland in English, Numeracy and Science (National Assembly for Wales, 2013), and showed that scores in each domain are significantly lower than more countries in the 2012 cycle compared to 2009.

**2012** – **Four Regional School Improvement Consortia** announced, *“to develop a consistency of approach, facilitate the sharing of best practice and ensure that the resources invested in local education services are being used as efficiently and effectively as possible.”* (Welsh Local Government Association, 2012).

**2013** – Establishment of a **National Support Programme** to support the implementation of the Numeracy and Literacy Frameworks

**2013** – **“The Future Delivery of Education Services in Wales”** by Robert Hill Consulting (Robert Hill Consulting, 2013) published making suggestions for the structures and organisation of the Welsh education system

**2014** – **“The National Model for Regional Working”** (Welsh Government, 2014) outlined an updated national vision for regional school improvement consortia and explained the functions of the three tiers of the national education system

**2014** – **“Improving Schools in Wales: An OECD Perspective”** (OECD, 2014) published. This followed the publication and responses to the publication of the 2009 PISA results and several related policy reforms. The Welsh government invited the OECD to lead an education policy review, focused on the quality and equity of education in Wales for all 3-16-year-olds

**2014** – **Curriculum review** - Professor Graham Donaldson CB was invited to undertake a review of the curriculum and assessment processes in Wales

**2015** – **“National Model for Regional Working”** (Welsh Government, 2014) was updated reflecting, *“what has become custom and practice for consortia and seeks to record it formally within the model...this updated version reflects the implementation of the National School Categorisation system, and reflects that the concept of Challenge Advisers is now embedded within our system.”* (p.3)

**2015** – **“Teaching Tomorrow’s Teachers”** (Furlong, 2015) published, Professor John Furlong’s review of Initial Teacher Education in Wales

**2015** – **“Improving schools through regional education consortia”** (Estyn, 2015) published by Estyn. The purpose of this was for Estyn to provide a progress report on the work of regional consortia in their role of providing school improvement services.



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**2015 - “Successful Futures: Independent Review of Curriculum and Assessment Arrangements in Wales”** (Donaldson, 2015) detailed large-scale curriculum and assessment reforms across Wales

**2015 – “A Curriculum for Wales – a curriculum for life”** (Welsh Government, 2015a) followed the review of curriculum and assessment by Professor Graham Donaldson CB. This detailed how the recommendations of the Donaldson Report, “Successful Futures” (Donaldson, 2015) would be delivered, and identified four ‘enablers’ to aid the delivery of the new curriculum including: ‘Working in Partnership’; ‘Strong school-to-school working’; ‘Inspiring leadership’ and ‘Inclusivity’.

**2016 – Review of the Professional Standards for Teachers** (2011). Aligning a new set of standards for both teachers and leaders with wider education reform programmes, including curriculum reform (Donaldson, 2015 and Welsh Government, 2016) and reform of initial teacher education (Furlong, 2015).

**2016 – OECD & Welsh Education System** - The OECD began work across the three tiers of the Welsh education system to co-construct the ‘Schools in Wales as Learning Organisations’ model (Welsh Government, 2017b). Authors of the OECD SLO concept and model (Kools & Stoll, 2016b) worked directly with representatives from all three tiers of the Welsh education system to co-construct the ‘Schools in Wales as Learning Organisations’ (Welsh Government, 2017b) model

**2017 – “The Welsh Education Reform Journey: A Rapid Policy Assessment”** (OECD, 2017c) noted the impact of the 2009 PISA results on the reform efforts in Wales and concluded with proposing recommendations to strengthen Wales’ reform efforts undertaken since the 2009 PISA results

**2017 – “Education in Wales: Our National Mission”** (Education Wales, 2017) National education action plan detailed the delivery of the new curriculum, and placed the implementation of the curriculum reform recommendations of the Donaldson Report (Donaldson, 2015) as a central driver for system-wide education reform in Wales

**2017 – “Schools in Wales as Learning Organisations”** developed, launched & published (Welsh Government, 2017b) model (Welsh SLO). This was a culmination of a year-long process of co-construction undertaken at all three tiers of the education system in Wales, facilitated by the OECD, including authors of the OECD SLO working paper, “Schools as Learning Organisations” (Kools & Stoll, 2016b). The Welsh SLO model adapted the OECD SLO concept and model by placing the four purposes of the new curriculum at the heart of the new, distinctive Welsh SLO model and contextualising several of the underlying elements of the 7 Dimensions.

**2018 - National Approach to Professional Learning** launched (Welsh Government, 2018b). This locates the Four Purposes (integral to Curriculum Reform) at its centre as part of the National Mission, with the ‘professional learner’ encompassing this. It acknowledges the support offered by three ‘contexts’ of school, regional and national. 8 integrated elements comprise the approach. These are, (A) in the school context (1) Individual Professional Learning Journey (2) Schools as Learning Organisations (3) Professional Learning Blend (B) in the National context (4) Collaborative Networks (5) Professional Teaching & Leadership Standards and (C) in the regional context (6) Pedagogy for Professional Learning (7) Professional Learning Offer (8) Accreditation/ Recognition. This is embraced by ‘impact’ and ‘evidence’ and the whole model/ approach is encircled by the ‘school learner’.

**2018 - Professional Standards for Teaching and Leadership** (Welsh Government, 2018a). This locates values and dispositions (Welsh language & culture, rights of learners, literacy, numeracy and digital competence, the professional learner, the system role, and professional entitlement) centrally to the five standards. The largest of the standards is pedagogy. This is followed by, in equal measure, collaboration, innovation, professional learning and leadership.

**2019 – Education Report Wales - Headline Indicators** (Welsh Government (Institution), 2019b). The Education Directorate undertook a self-evaluation, including their response to recommendations from the most recent OECD country review. Five recommendations were made to ensure the continued progress towards achieving the goals of the National Mission: (1) Curriculum publication, engagement, and feedback (2) Develop a new way to measure, to inform policy, learner well-being (3) Work with the profession to reduce bureaucracy and

## An exploration of “Schools as Learning Organisations” as a catalyst for school and system change

workload (4) Continue to raise attainment for all, tackling the link between deprivation and attainment (5) Continued focus on professional learning, giving teachers the tools to raise standards for all.

### 2020 - COVID-19 related policy developments

**2021 – The National Strategy for Educational Research and Enquiry (NSERE): Vision Document** published (Welsh Government, 2021b). A 2-part vision for ensure decisions by (1) policy makers and (2) system leaders and practitioners in the education system are informed by current research and robust evidence. This entails 3 actions focused on (a) developing infrastructure to govern and implement the strategy (b) partner with HEIs to contextualise research specific and appropriate to the Welsh context (system & reform programme) and (c) enabling the education profession to become evidence informed.

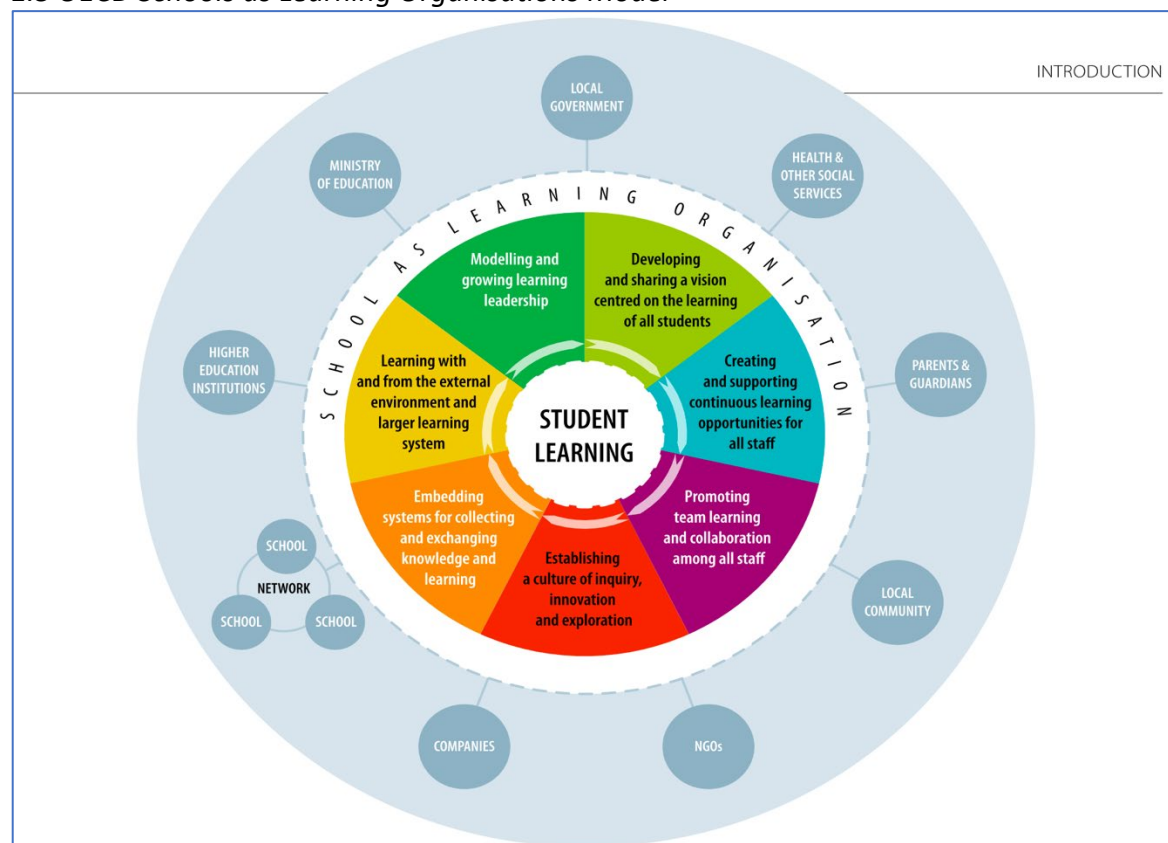
**2021 - OECD Teachers’ professional Learning study: diagnostic report for Wales** (OECD, 2021) – exploration of policy context underpinning teacher professional learning in Wales. A virtual visit took place in November 2020 examining three areas:

1. The National system
2. School and school leaders
3. Teacher & practitioner perspective

Highlights of this report focus on the comprehensive policy framework for professional learning and a shared commitment across stakeholders in the Welsh school system.

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### 1.3 OECD Schools as Learning Organisations Model



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## Appendix 2

### Chapter 2 - Literature review

#### 2.1 The 14 Parameters Framework (Sharratt, 2018)



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## Appendix 3

### Chapter 3 - Methodology & methods

#### 3.1 Adjusted project plans

Original Data Capture Plan (Pre-COVID-19)	Adjusted Data Capture Plan (during COVID-19)
Represent the views, experiences, and reflections of school leaders and teachers who participated in the project.	Represent the views, experiences, and reflections of the project as a group of <b>system leaders</b> collaborating with each other across the four regions to co-construct and co-deliver the project with the external facilitator.
Represent the views, experiences, and reflections of system leaders who supported the school project teams across the wider education system.	Represent the views, experiences, and reflections of <b>system leaders</b> as they supported the project schools with this work in the context of COVID-19.

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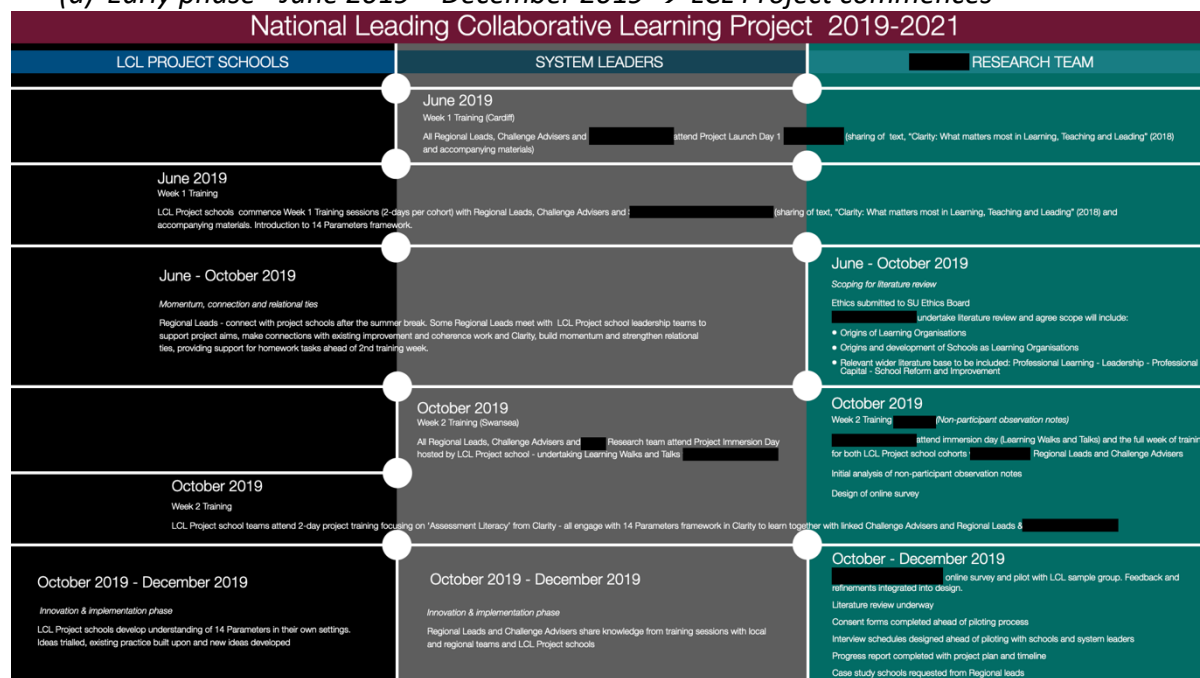
#### 3.2 x3 Excerpts from visual timeline of LCL Project (anonymised) – illustrating (a) launch, (b) mid-point and (c) culmination of LCL Project & research plans

Visual timeline shows:

(1) adaptations to LCL Project delivery and research plans in early, mid-, and late phases of project

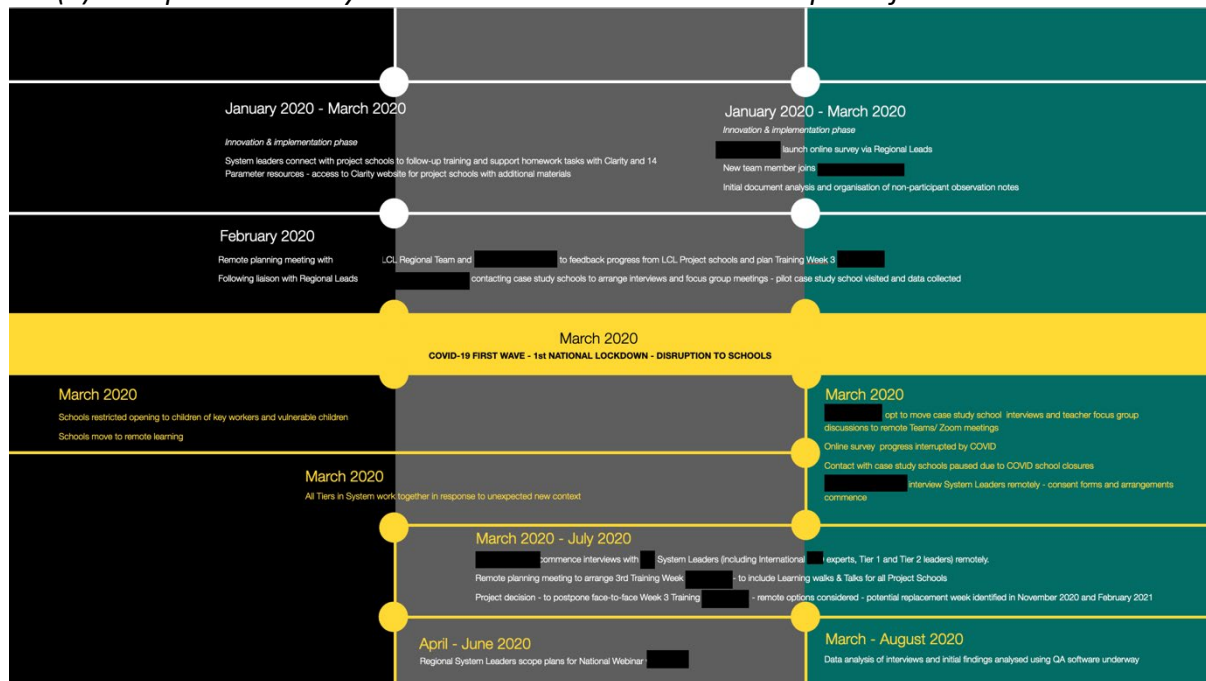
(2) boundary-crossing between LCL Project schools, LCL Core delivery team & research team

#### (a) Early phase - June 2019 – December 2019 → LCL Project commences

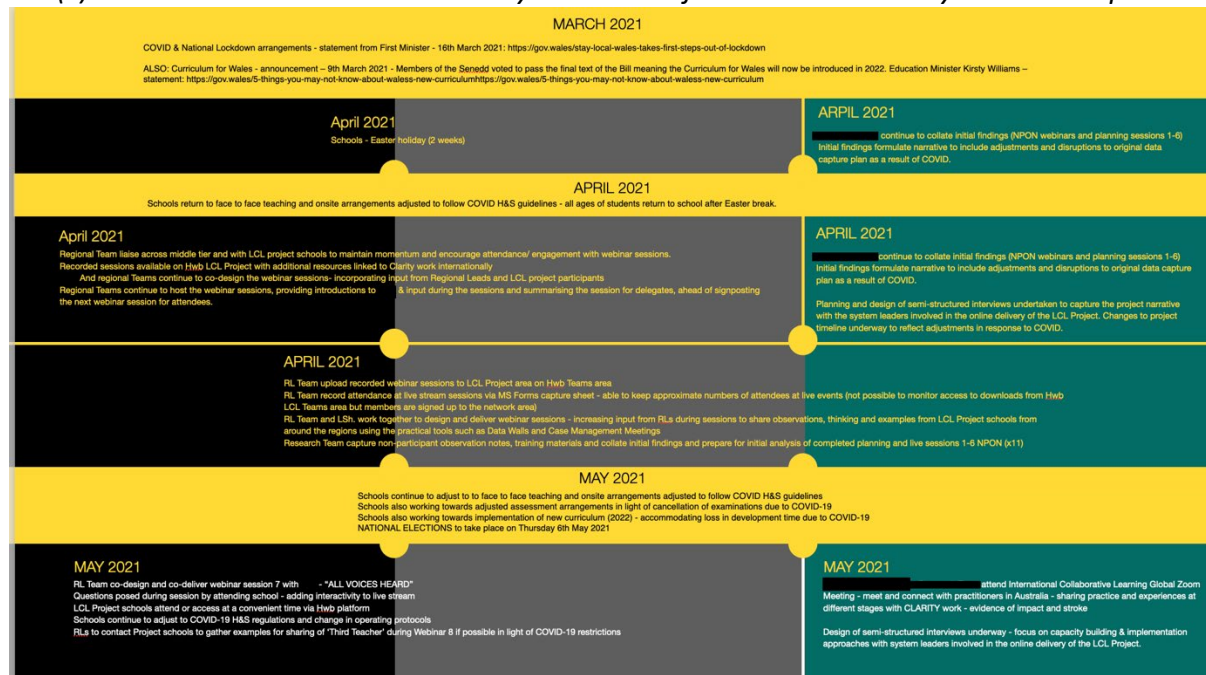


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## (b) Mid-point - January 2020 – June 2020 → Immediate impact of COVID-19



## (c) Culmination - March 2021 – May 2021 → Adjustments to delivery & research plans



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### 3.3 Online survey (v.1 & pilot)

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(a) *Information & consent – access page – consent required to access and begin survey. If no consent provided, the survey re-routed the respondent to a ‘thank you’ page.*

<p style="text-align: center;"><b><u>ONLINE Survey DRAFT</u></b></p> <p style="text-align: center;"><b><u>Leading Collaborative Learning (LCL) Project</u></b></p> <p>You have received this short online survey because of your involvement in the development and research (D and R) study focused on the work of ██████████ in Wales, ‘Leading Collaborative Learning’ (LCL). This online survey is part of the D and R study of the LCL work being undertaken by a research team from ██████████ University. The D and R study aims to capture the way in which the ‘Leading Collaborative Learning’ Project is impacting on upon schools as part of their school improvement journey.</p> <p>This online survey is the first of two short online surveys that we are asking everybody to complete.</p> <p>Your survey responses will be given a unique code as an ‘identifier’, which will ensure your responses remain anonymous and confidential. Data from survey responses will only be viewed by the researcher/research team and will only be used for the explicit purposes of the project.</p> <p>Your participation in all aspects of the D and R study is voluntary and you can decide not to complete or submit this online survey and/ or withdraw from the D and R study at any point, without giving a reason. Any data will then be destroyed, and you will be removed from the project.</p> <p>If you would like more information, please email the ██████████</p> <p><b>Additional information:</b> The data controller for this project will be ██████████ University. The University Data Protection Officer provides oversight of university activities involving the processing of personal data and can be contacted at the Vice Chancellors Office: ██████████ Your data will be processed in accordance with the Data Protection Act 2018 and the General Data Protection Regulation 2016 (GDPR).</p>
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*(b) Draft question format (v.1) for full online survey*

**Welcome to the Leading Collaborative Learning Online Survey**

**This survey should take a maximum of 20 minutes to complete.**

**Please answer every question relevant to your role.**

**Your responses will be saved as you go, and you can go back to any questions at any point prior to clicking ‘submit’ at the end of the survey.**

**There are 11 questions in total.**

**Please state your current role - are you:**

(Please circle)

- Welsh Govt (ROUTE to Q3)
- Consortia Lead (ROUTE to Q3)
- Regional Lead (ROUTE to Q3)
- Challenge Adviser (ROUTE to Q3)
- Headteacher (ROUTE to Q2)
- Senior Leader (ROUTE to Q2)
- Faculty/ Department Lead (ROUTE to Q2)
- Other (please specify) (ROUTE to Q3)

**Questions**

**1. How did your school get involved in the LCL Project?**

(For Headteachers/ school-based staff only)

- Invited
- Volunteered
- Selected
- Don't know
- Other (please specify)

**2. What do you understand as the three main intentions of LCL work, from your perspective?**

Please select **three** from the following list: **SELECT/ RANK/ PRIORITY RESPONSES**

- ⇒ Pedagogical Improvement
- ⇒ Schools as a Learning Organisations
- ⇒ Curriculum Development
- ⇒ Improving assessment practices
- ⇒ Professional Learning
- ⇒ Leadership Development
- ⇒ Whole-School Improvement
- ⇒ Collaboration within schools
- ⇒ Collaboration with other schools
- ⇒ Developing student academic literacy
- ⇒ Other

**3. What do you hope your school will gain from the LCL work? OPEN**

(Please provide a brief comment)

**4. What do you hope to gain professionally from taking part in the LCL work? OPEN**

(Please provide a brief comment)

**5. How do you rate the LCL training process so far? OPEN**

(Please provide a brief comment)

**6. Please consider the following statement:**

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**“The LCL training process has prepared me well to develop this work with my own school/ the schools I work with/my region”**

(Please circle)

- Strongly Agree
- Agree
- Disagree
- Strongly disagree

**7. As a result of the LCL Project, what do you anticipate will be the biggest impact on schools in terms of the 7 Dimensions of ‘Schools as Learning Organisations in Wales’?**

On a scale of 1-10, please indicate how the programme will have an impact on each of the following 7 dimensions where 10 is positive, 5 is no impact and 0 is negative impact:

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

**8. As a result of the LCL Project, what changes have been made to increase opportunities for teachers and leaders to collaborate and share knowledge about assessment, teaching and learning strategies? OPEN**

(Please provide a brief comment)

**9. In your role, how sustainable do you consider the work of the LCL Project to be beyond the end of the two-year project?**

(Please select one answer)

- The work will be fully embedded and new practice established after the duration of the 2yr project
- No extended work will be introduced after the duration of the 2yr project
- The work will not continue beyond the 2yr project

**10. What support needs to be available to ensure that LCL is successfully embedded in my school/ region? OPEN**

OPEN

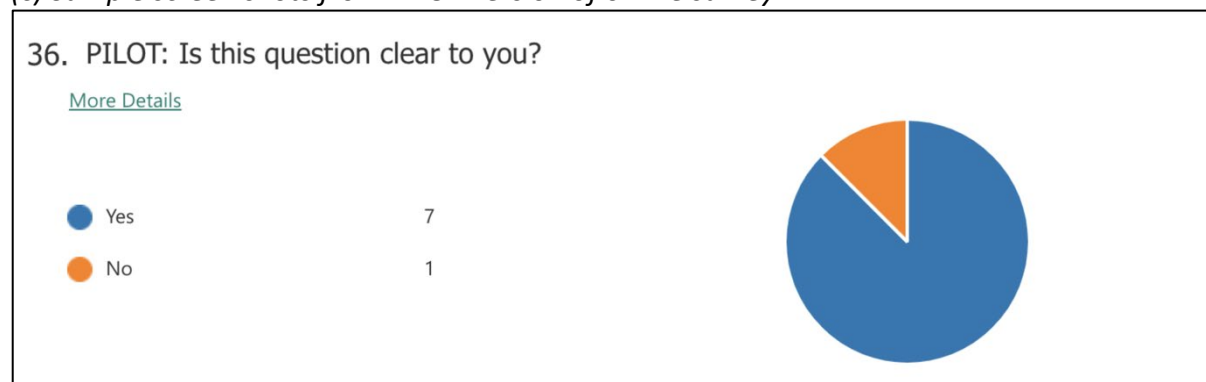
(Please provide a brief explanation)

**10. What advice would you give to schools who are thinking of joining the LCL Project: OPEN**

(Please provide a brief explanation)

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*(c) Sample screen shots from PILOT version of online survey*





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18. If no, please write a brief comment below telling us why it is not clear

1 Responses

ID ↑	Name	Responses
1	anonymous	It doesn't tell you what to do i.e. Please consider the following statement and respond with one of the 4 options below

### 3.4 Application of Biesta's 7 dimensions of Mixed Methods approaches - quality check

Levels	Application of 7 levels to this research approach and subsequent design
Data	A combination of text and numbers informed the research design by including open and closed questions in the online survey. In addition, interview questions were informed by emerging themes drawn from integrating the data from non-participant observation notes and document analysis from the project training days with individual participant responses to the open questions/ comments from the pilot survey data and pilot interviews. Qualitative methods were used in the semi-structured interviews and focus groups to gather individual perceptions and experiences within the settings of selected project participants
Methods	The online survey combined open and closed questions to produce quantitative and qualitative data. Document analysis and non-participant observation notes identified shared and common dimensions of the phenomena of the inputs (training days and the Welsh SLO model) experienced by the research participants Semi-structured interviews and focus groups gathered complex and nuanced insights from project participants from their unique contextual perspectives
Design	By integrating results from document analysis, non-participant observations and closed question from the survey data (quantitative) with open questions from the online survey, semi-structured interviews and focus group discussions (qualitative), both methodological approaches were integrated into the overall design of this research at the paradigmatic, methodological, method, analysis, and representation phases of the project
Epistemology	The <i>quantitative</i> approaches were underpinned by assumptions that the universal and common phenomena of the training days and resources provided constituted a fixed 'reality' where objective knowledge existed. In this case, this fixed reality comprised the singular inputs (training days, resources shared and generated) and the measurable and comparable responses from the closed (quantitative) questions in the online survey. Assumptions underpinning the <i>qualitative</i> research approach were that knowledge can be discovered by, "understanding social and cultural phenomena from participants' perspectives" (Denzin & Lincoln, 2018). The open (qualitative) questions in the survey accessed deeper, complex, and socially constructed understandings of the individual and collective experiences of participants, which were then triangulated with participant responses from the semi-structured interviews and focus groups, adding to the reliability and validity of the project design.
Ontology	Underpinning the <i>quantitative</i> aspect of this pragmatic mixed methods approach was an assumption that, "Knowledge and truth remain objective" (Denzin & Lincoln, 2018) which determined the use of quantitative methods in the design of the research. Here, the objective knowledge and truth of the quantitative element of the research was the shared and common phenomena of the inputs (document analysis, non-participant observations during the training days and the closed questions included in the online survey tool).

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	This was mixed with the <i>qualitative</i> elements of the research design, where the object of the research sought to construct knowledge from investigating the individual <i>and</i> collective experiences of the research participants (Coe et al., 2017).
Research purpose	By identifying the <i>problem</i> first in order to inform the research question for this research (Biesta, 2020), two purposes research became apparent: <ol style="list-style-type: none"> <li>1. To <i>understand</i> through feedback, field notes and interviews, the individual and collective experiences of the five themes of context, change, culture, leadership, and trust in the research in response to shared and objective phenomena of the project</li> <li>2. To <i>explain</i> the change processes, relating to the five themes involved in implementing the Welsh SLO model through the direct experiences and individual perceptions of the research participants</li> </ol>
Practical orientation	In addressing the two stated purposes, this pragmatic mixed methods research approach was ideally located to address its ambition to understand and explain the interplay of the five themes by exploring the experiences and perceptions of project participants with the inputs of the research – the project and the Welsh SLO model. In this way, the practical contribution of the research was to explain the necessary conditions for the system-wide implementation of the Welsh SLO model and ultimately assess the extent to which the SLO model is a ‘catalyst for system and school change’. In doing so, the ambition of this project to contribute to both practice and policy was realised.

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### 3.5 Semi-structured interview schedule - system leaders

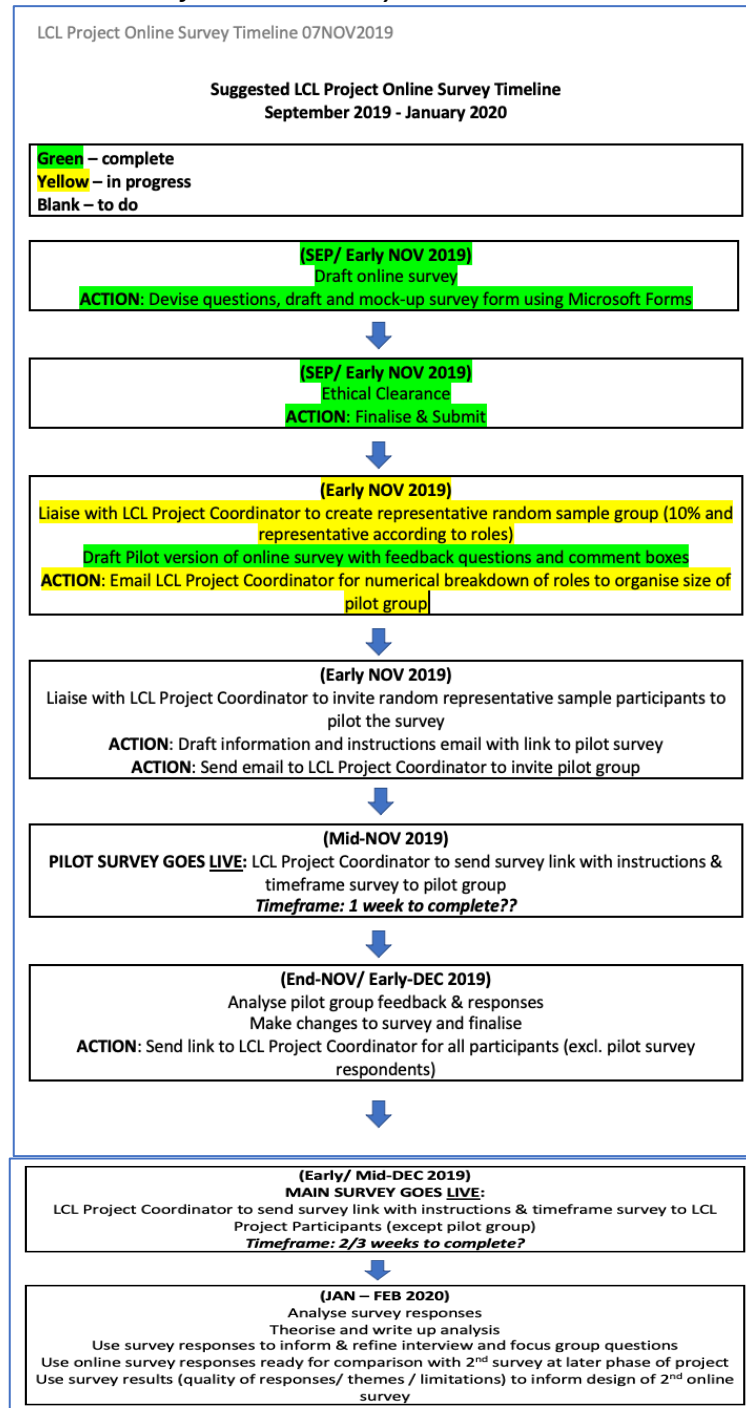
<p><b>QUESTION 1: Interest in the SLO model from a research point of view:</b> introduction to set context for the Schools as Learning Organisations (SLO) model(s) and wider experiences with this (<b>INTENTIONS</b>)</p> <p><b>QUESTION 2: General reflections on the SLO model:</b> as it has been implemented/ developed in Wales and the UK (<b>INTENTIONS</b>)</p> <p><b>QUESTION 3: SLOs in the UK:</b> Experiences of the SLO being implemented internationally, with specific examples from different country contexts (<b>PROCESSES</b>)</p> <p><b>QUESTION 4: SLO International comparison and current educational contexts:</b> Thoughts from the different perspectives on how SLO models have been developed and any distinctive factors in the specific contexts that might support its success (<b>PROCESSES</b>)</p> <p><b>QUESTION 5: Identification of any critical conditions:</b> those that need to be in place ahead of implementing the SLO model if it is to succeed in a single school setting (<b>PROCESSES</b>)</p> <p><b>QUESTION 6: SLO leadership approaches:</b> identification and reflections on any leadership approaches required to enact the SLO model in a single school setting (<b>PROCESSES</b>)</p> <p><b>QUESTION 7: Unpicking the 7 Dimensions of the SLO model:</b> to identify any that might be easier than others to implement and any system-conditions needed ahead of implementation (<b>PROCESSES</b>)</p> <p><b>QUESTION 8: Indicators and opportunities:</b> Identification of any indicators over time that might be expected at system-level where the SLO is being developed, where they might become apparent and how long it might take to see them (<b>OUTCOMES</b>)</p> <p><b>QUESTION 9: Indicators of successful implementation of the SLO model:</b> Identification of any changes/ improvements at pupil-level where a SLO was successfully being developed (<b>OUTCOMES</b>)</p> <p><b>QUESTION 10: Assessment of the SLO:</b> Considerations of how to measure the realisation of the SLO model at system-level (<b>OUTCOMES</b>)</p>
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**QUESTION 11: Coverage of interview:** Additional questions were asked from the interviewees by the researchers along with any areas that had been omitted to allow for additional information from the interviewees and add this to the data collection

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### 3.6 Original proposed timeline for online survey



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3.7 Challenges addressed in interview schedule design (Brinkman, 2018)

Manifestation of power	Design decision
<b>Asymmetrical power</b> - the interview is instigated by and structured by the interviewer, and knowledge of what is to be asked, how this has been decided and the order and directions of the questions is all held by the interviewer	The purpose of the research was made clear as part of the information and consent form provided ahead of interviews Interview protocol made the specific purpose of the interview and reiterated the purpose of the research study explicit at the beginning of the interview. System leaders were provided with an overview of discussion points and question prompts ahead of the interview (see APPENDIX) Interviewees in the case study schools were aware of the topic to be discussed, although not the specific interview questions.
<b>Imbalance of researcher – interviewee numbers</b> - researcher reliability required more than one researcher to be present at every interview	Two or, more typically three, researchers attended the interview, so agreed protocols included: <ul style="list-style-type: none"> <li>• Researchers identified which questions to lead on where there were two researchers</li> <li>• Where three researchers were present, one took the lead for all questions with one discreet opportunity at the end of the interview for the other researchers to pose questions or seek clarification</li> <li>• The format of the interview was made explicit to the interviewee at the start of the interview and ‘next’ questions were signposted throughout</li> </ul>
<b>One-way dialogue</b> - with questions posed from the researcher and responded to by the interviewee	Semi-structured nature of the interview and the pre-agreed and explicitly stated interview protocols were designed to allow conversations to use the initial questions as a prompt for interviewees to exercise agency in leading the conversation from this point, selecting aspects of their experiences to discuss
<b>Instrumental dialogue</b> – the interview only serves the researcher’s goals	The interview questions were designed to provide an opportunity for professional reflection for the interviewee on their experience and involvement in the study
<b>Precedence of the research agenda</b> - always present and may take precedent over any desired outcomes on behalf of the interviewee	This was a fact of the interview process and the design of the study, made clear in the information and consent form provided ahead of the interview
<b>Sole interpreter</b> – researcher interprets the responses, maintaining, “exclusive privilege to interpret and report what the interviewee really meant” (Brinkman, 2018)	This was a necessary aspect of the interview method reassurances were provided to the interviewees through the information and consent forms, specifically their “ <i>right to withdraw without providing a reason</i> ” if they had any concerns. Accuracy of what was said in the interview was assured by the presence of at least two researchers and the digital recording of all interviews. Full transcriptions of all interviews were also undertaken and cross-referenced against recordings.
<b>Interference/ mediation by material factors</b> – use of telephone conference-calling and web-based video conferencing	Limitations were acknowledged where remote, audio-only interviews (no visual cues, mis-hearing and unclear responses) were conducted and clarification of key points, any misheard information and checking for meaning by both interviewers was incorporated into the interview schedule for audio-only conversations Remote interviews via video conferencing were also acknowledged as limiting – here, three researchers were present on these calls and the video and audio recording were available for additional checking for meaning and emphasis
<b>Presence and use of material factors</b> – use of digital recorders, web-based software with recording capacity	Interviews were recorded in MP3 Format using a digital recorder and this was the material used to fully transcribe every interview. Backup recordings were also made using MP4 format where video conferencing was used or additional MP3 recording on mobile phones. All backup recordings were deleted after the main MP3 recordings were

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	confirmed as accurate and useable. These recordings were stored on the university server, password protected and accessible only to the research team in accordance with the ethical and participant consent agreements of this research.
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3.8 Online survey piloting - feedback and changes following pilot online survey

SURVEY ITEM	FEEDBACK	CHANGES MADE
Request for unique identifier	<b>FEEDBACK:</b> There’s a grammatical error asking for a unique identifier: ‘mothers’	Addition of apostrophe to ‘mother’s maiden name’
Role descriptions of Consortium Lead and Regional Lead	<b>FEEDBACK:</b> I wasn’t sure whether to choose consortia lead or regional lead as they mean the same thing?	Change made to refer to this role as ‘Consortia Lead’ and delete ‘Regional Lead’
Q18 (pilot version) –	<b>FEEDBACK:</b> It doesn’t tell you what to do – i.e. ‘Please consider the following statement and respond with one of the 4 options below’	Wording changed to ensure it clearly states what you must do in order to answer the question
Q23 (Pilot version) – Technical issue	<b>FEEDBACK:</b> Q23 offers a no, yes, unsure response. I clicked Yes and then gave my reason in the next box but when I tried to submit it insisted, I complete the unsure explanation so that must be a compulsory field. You may want to change that? I put N/A as a way to get past it, but it might confuse others?	This was a technical ‘branching’ issue – now corrected to be directed to next question after answering ‘unsure’
Q27 (Pilot Version)	<b>FEEDBACK:</b> Q27 asked about the sustainability of the project at the end of the 2 years. I think there are 3 options to choose from and I clicked yes that the work would continue but my guess is schools might only say yes if the work was funded to continue? Is there room for a fourth option which infers that with support from WG or the consortia the work could continue. If you are asking schools to share the pilot with other schools without time/financial incentive I am not sure they will say yes but if it suggested that there will be support for them to do this, then I think they would.	For discussion... I don’t think this is necessary as pilot group respondents included this in their responses...so no change made.
Q28 (Pilot Version)	<b>FEEDBACK:</b> Explanation of the questions relating to SLOs – no link to the rating scale and explanation of what to do	Question reworded to include a clearer explanation of how this question works, including a link to the sliding scale - changed to: <b>DRAFT</b> “This next section focuses on the 7 Dimensions of the 'Schools as Learning Organisations (SLOs)' model. <b>EITHER</b> What do you anticipate will be the biggest impact on each of the SLO dimensions of the LCL Project for schools developing as Learning Organisations? <b>OR</b>

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		What impact do you anticipate the LCL Project will have on each of the 7 Dimensions for schools developing as Learning Organisations? For each dimension, 1 is negative impact and 10 is positive impact.
Q31 (Pilot Version)	<b>FEEDBACK:</b> Suggested amendment, “From your perspective, what has been the immediate and direct impact of the LCL to date?”	SO... Question needs re-wording... <b>DELETE ORIGINAL CLOSED-CHOICE QUESTION:</b> As a result of the LCL training, what changes have been made to facilitate collaboration between teachers and leaders? <b>REPLACE WITH OPEN-QUESTION:</b> From your perspective, what has been the immediate and direct impact of the LCL Project to date?
‘Required’ responses applied to all questions	<b>FEEDBACK:</b> could be annoying to have to provide responses to every question, particularly the open-ended questions with comments	Reduced requirement to answer all questions: ‘required’ applied only to closed questions and to those deemed to be vital to the research aims e.g. The 7 Dimensions of the Schools as Learning Organisations in Wales model were all marked as ‘required’
Submission of survey	<b>FEEDBACK:</b> Option to personalise a response once survey is submitted	Personalised message generated
Administration of survey	<b>FEEDBACK:</b> Option to create a notification on submission of surveys	Creation of an email alert when forms are submitted

## An exploration of “Schools as Learning Organisations” as a catalyst for school and system change

### 3.9 Participant roles in project cohort

Title	Role in the study
Tier 1 Welsh Government representatives	Welsh Government (WG) representatives providing oversight and support for the project. WG attended planning meetings, training days, remote meetings, and live webinar sessions, maintaining close contact with Tier 2 participants and the Research Team in the study during the 2-years. Progress of the project was monitored and recorded through a series of short, interim, summary, and final reports and contingency plans in response to the system-wide disruption caused by COVID-19 from March 2020 onwards
Tier 2 Regional Leads & Study Project Coordinator	Regional Leads attended training days and worked directly with schools and Challenge Advisers, familiarising them with the project training processes, resources and engaging them with the collaborative discussions during the training days. Between training days, Regional Leads supported the coordination and communication of the project study in their regions, working closely with the Study Project coordinator acting as the central point of contact to communicate and coordinate the logistics and support the delivery and progress of the study including its co-planning, delivery, and design. Central point of contact for Tier 1 and Tier 2 project participants and intermediary for the four Regional Leads, the project research team, the external facilitator and representatives from Tier 1 Welsh Government
Tier 2 Wider System Leaders	System Leaders working across Tier 2 of the Welsh Education system in organisational and individual support, consultancy, advisory and/ or advocacy capacities
Tier 2 Challenge Advisers	Every project school is linked to a Challenge Adviser to provide support and challenge for school improvement and develop capacity, confidence, and behaviours to lead improvement in schools. Challenge Advisers attended training and worked directly with their linked schools, familiarising them with the study training processes, resources and engaging them with the collaborative discussions during the training days and supporting the implementation of this work between the training day sessions.
Tier 3 School leaders and teachers	Project schools were represented by a team of at least four members of staff. These teams comprised a senior leader (preferably the headteacher) and senior and middle leaders in the school. The school teams were required to attend four two day-training sessions in locations around Wales originally planned to take place in June 2019, October 2019, June 2020 and November 2020.

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### 3.10 Sample anonymised participant information & consent form

<p><b>Leading Collaborative Learning (LCL) Study</b></p> <p><b>What is purpose of the study?</b></p> <p>This is a development and research (D and R) study focused on the work of <i>[external facilitator]</i> in Wales. It is being undertaken by a research team from Swansea University <i>[Research Team names]</i>.</p> <p>The LCL aims to capture the way in which ‘Leading Collaborative Learning’ Project is impacting on upon schools as part of their school improvement journey. The data capture will include interviews and focus groups with key players in the project (Welsh Govt, Consortia Leads, Regional Leads, Challenge Advisers, School Leaders, and Teachers) as well as documentary analysis and informal observation. The aim of the study is to be formative rather than evaluative with a key focus on intentions, process and outcomes of the developmental work led by <i>[external facilitator]</i>. Participation in the study will be voluntary and subject to written consent.</p> <p><b>What will participation in the study involve?</b></p> <p>Participation in the study will be to:</p> <ol style="list-style-type: none"> <li>respond to a short survey (20 minutes on-line x two 2)</li> <li>participate in a semi-structured interview (25minutes)</li> <li>participate in a focus group discussion (40minutes)</li> </ol> <p>Not all participants will be asked to engage in all three data capture approaches. Participation is by negotiation and explicit permission.</p>
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## An exploration of “Schools as Learning Organisations” as a catalyst for school and system change

Even if you take part in the data capture you can withdraw from the study at any point, without giving a reason. Any data will then be destroyed, and you will be removed from the project.

### **What will happen to the interviews and focus group recordings?**

Interviews and focus group discussions will be digitally recorded and partially transcribed adhering to the norms of confidentiality and anonymity. All electronic data will be stored on a password-protected shared drive and only accessed by the research team.

Unless you withdraw, your data will be stored for 5 years. Your data will only be viewed by the researcher/research team and only used for the explicit purposes of the project. If you are in a case study school, the school will be named but individuals will have the choice to be anonymised in any reporting. The normal ethical procedures will be followed to safeguard your privacy.

### **Will the data be anonymised?**

Every effort will be made to ensure that any identifiable information about you/your school, is anonymised and confidential. Any names mentioned during the focus group (for example, names of colleagues) will be anonymised. Your consent information will always be respected and adhered to. No pupil names will be recorded, and pupil information is not a part of this study, so will be deleted if mentioned.

### **What will the information be used for?**

The information provided in the interviews and focus groups will be used to compile a report for Welsh Government and it will be disseminated in academic conferences and potentially published in academic journals. Permission will be sought from Welsh Government to disseminate the work and no individual will be identifiable. The case studies are fuller accounts of the response to LCL, and a range of permissions will be sought to represent a more detailed account of an individual school journey.

### **Who can I contact for more information about the study?**

If you would like more information, please email [*Principal Investigator*].

### **Additional information:**

The data controller for this project will be Swansea University. The University Data Protection Officer provides oversight of university activities involving the processing of personal data, and can be contacted at the Vice Chancellors Office: [*Data Protection Office email*]

Your data will be processed in accordance with the Data Protection Act 2018 and the General Data Protection Regulation 2016 (GDPR).

### **Consent form**

**The following brief form gives your consent to participate in the study.**

**If you agree, please tick the statements below and add your signature.**

	Please tick
1. I confirm that I have understood the information sheet for the above study.	<input type="checkbox"/>
2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reasons.	<input type="checkbox"/>
3. I am happy for my data to be used (anonymously) in the final report, academic papers, and conferences as part of the data capture process	<input type="checkbox"/>
4. I am willing for the interview/focus group to be recorded*	<input type="checkbox"/>
5. I agree to take part in this study.	<input type="checkbox"/>

*\*Amended following change of formats in data capture plan - changed from 'audio' to 'recorded' to include video recording via online platform.*

**Professional Role**.....

**Signature**.....

**Date**.....

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3.11 Organisational framework (I-P-O) of original & adjusted research plans

I, P, O	Focus of data collection and research analysis	Tools mapped across I, P, O
<b>INTENTIONS</b>	Identify themes, language, and key messages of the project.	<b>Document Analysis of -</b> “Clarity: What Matter Most in Teaching, Learning and Assessment” Welsh SLO model (PDF) Course materials, handouts, training session slides <b>Immersive field notes –</b> In-Person Training days <b>Semi-structured interviews –</b> External Facilitator <b>Non-Participant Observations –</b> Remote rehearsal sessions Live streamed webinar training sessions
<b>INTENTIONS</b>	Gain insights of the Welsh SLO model from system leaders	<b>Semi-structured interviews –</b> International Experts Welsh Government External Facilitator Wider System Organisation-Leads Challenge Advisers <b>Online survey (all)*</b>
<b>INTENTIONS</b>	Gain insights from Middle Tier → project aims and objectives and its relationship to the implementation of the Welsh SLO model	<b>Online survey (all)*</b> <b>Semi-Structured Interviews with -</b> External Facilitator Welsh Government Wider System Leaders Regional Leads Challenge Advisers
<b>INTENTIONS</b>	Identify and compare the different perspectives of system leaders and practitioners* of the aims and objectives of the project	<b>Semi-structured interviews –</b> International Experts Welsh Government External Facilitator Regional Leads School Leaders <b>Focus Group Discussions* –</b> Teachers <b>Online survey (all)*</b>
<b>PROCESS</b>	Identify the policy context and development of the Welsh SLO model	<b>Semi-structured interviews –</b> International Experts Welsh Government Wider System Leaders Regional Leads Challenge Advisers
<b>PROCESS</b>	Identify project design decisions and pedagogical process of collaborative professional learning and leadership modelled during training days. Map against 5 themes: <ul style="list-style-type: none"> <li>• Context</li> <li>• Culture</li> <li>• Trust</li> <li>• Change</li> <li>• Leadership</li> </ul>	<b>Document Analysis of -</b> Course materials, handouts, training session slides <b>Immersive field notes –</b> In-person training days <b>Semi-structured interview –</b> External Facilitator <b>Non-Participant Observation Notes –</b> Remote rehearsal sessions Live streamed webinar training sessions

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<p><b>PROCESS</b></p>	<p>Document the experiences of the process of the structure and delivery across the 2-year duration of the project. Map against 5 themes:</p> <ul style="list-style-type: none"> <li>• Context</li> <li>• Culture</li> <li>• Trust</li> <li>• Change</li> <li>• Leadership</li> </ul>	<p><b>Immersive field notes</b> – In-person training days <b>Semi-structured interviews</b> – Welsh Government External Facilitator Regional Leads School Leaders* <b>Non-Participant Observation Notes</b> – Remote rehearsal sessions Live streamed webinar training sessions <b>Semi-Structured Interviews</b> - <b>Focus Group Discussions*</b> – Teachers <b>Online survey (all)*</b> <b>Creation of Project School Case Studies*</b></p>
<p><b>OUTCOMES</b></p>	<p>Gain insights and observe discussions between regional leads, school leaders* and teachers* and consider action plan development, homework tasks and artefacts created as outcomes of the training days. Map against 5 themes:</p> <ul style="list-style-type: none"> <li>• Context</li> <li>• Culture</li> <li>• Trust</li> <li>• Change</li> <li>• Leadership</li> </ul> <p>Analyse alongside 7 Dimensions of Welsh SLO model</p>	<p><b>Immersive field notes</b> – In-person training days <b>Non-Participant Observation Notes</b> – Remote rehearsal sessions Live streamed webinar training sessions <b>Creation of Project School Case Studies*</b></p>
<p><b>OUTCOMES</b></p>	<p>Record and observe the plans made by school leaders* and teachers* as outcomes of the research delivery days Map against 5 themes:</p> <ul style="list-style-type: none"> <li>• Context</li> <li>• Culture</li> <li>• Trust</li> <li>• Change</li> <li>• Leadership</li> </ul> <p>Analyse alongside 7 Dimensions of Welsh SLO model Feedback from project schools via project core delivery team (Regional Leads) &amp; final ‘Learning Fair’ Culminating Online Event.</p>	<p><b>Immersive field notes</b> – In-person training days <b>Semi-Structured Interviews</b> – Welsh Government School Leaders Regional Leads Challenge Advisers <b>Focus Group Discussions</b> – Teachers <b>Creation of Case Studies</b> <b>Non-Participant Observation Notes</b> – Remote rehearsal sessions Live streamed webinar training sessions → Learning Fair</p>
<p><b>OUTCOMES</b></p>	<p>Record changes made to school norms, routines, systems and structures by system leaders, school leaders and teachers as an outcome of the project. Mapped against 5 themes:</p> <ul style="list-style-type: none"> <li>• Context</li> <li>• Culture</li> <li>• Trust</li> <li>• Change</li> <li>• Leadership</li> </ul>	<p><b>Semi-Structured Interviews</b> – Welsh Government School Leaders Regional Leads Challenge Advisers <b>Focus Group Discussions</b> – Teachers <b>Online survey (all)*</b> <b>Creation of Case Studies*</b> <b>Non-Participant Observation Notes</b> – Remote rehearsal sessions</p>

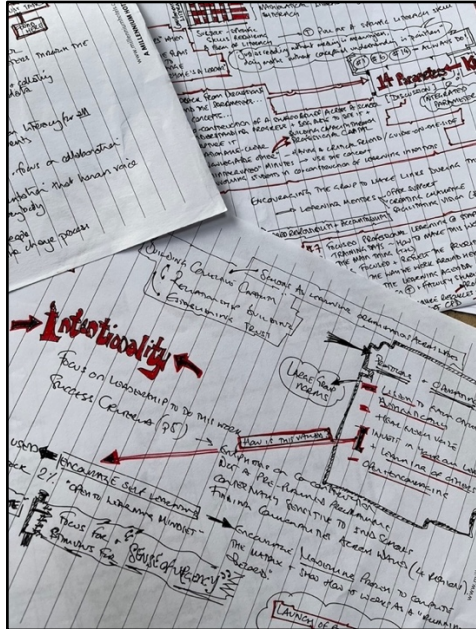
An exploration of “Schools as Learning Organisations” as a catalyst for school and system change

Analyse alongside 7 Dimensions of Welsh SLO model	Live streamed webinar training sessions → Learning Fair
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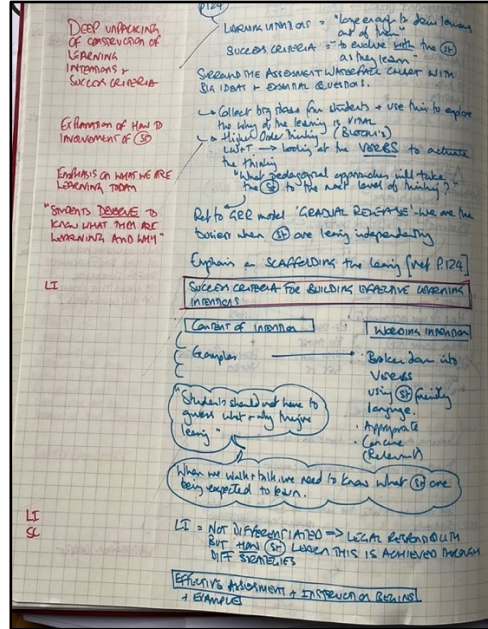
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3.12 Samples of immersive field notes (in-person training)

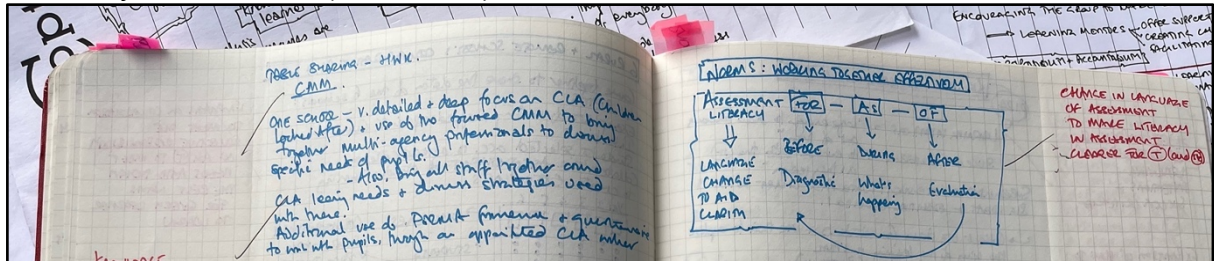
Initial unstructured notes Week 1 (June 2019)



Immersive field notes Week 2 (October 2019)



Immersive field notes Week 2 (October 2019)



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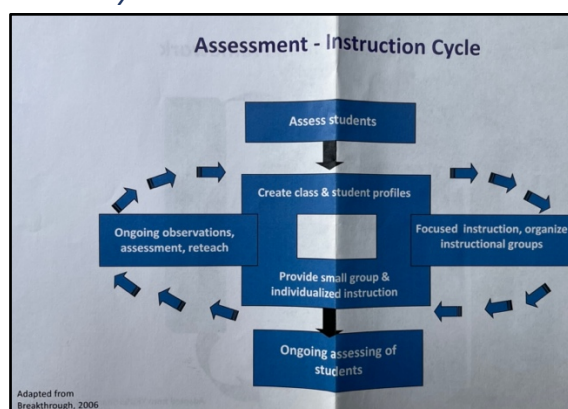
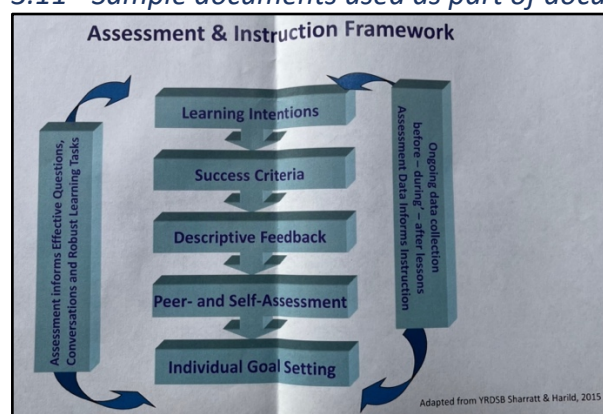
## An exploration of “Schools as Learning Organisations” as a catalyst for school and system change

(a) Excerpt from summary of immersive field notes (in-person training) used for inter-researcher-reliability checks

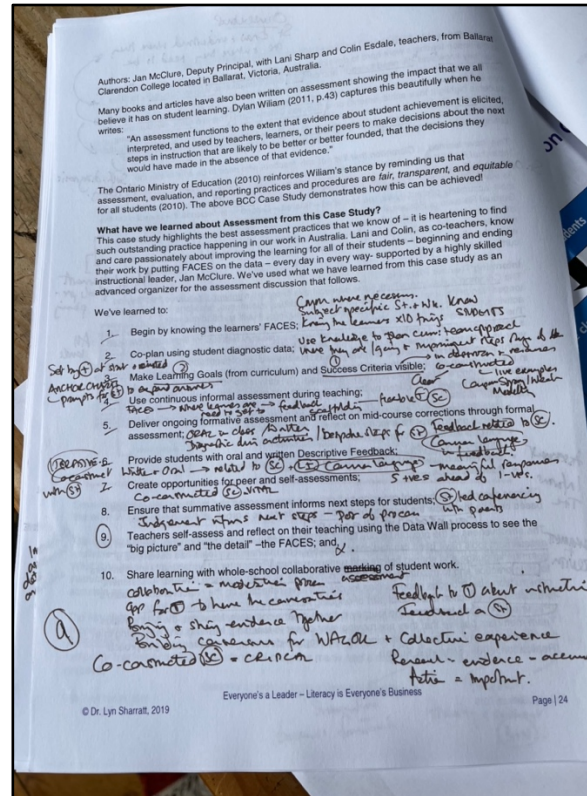
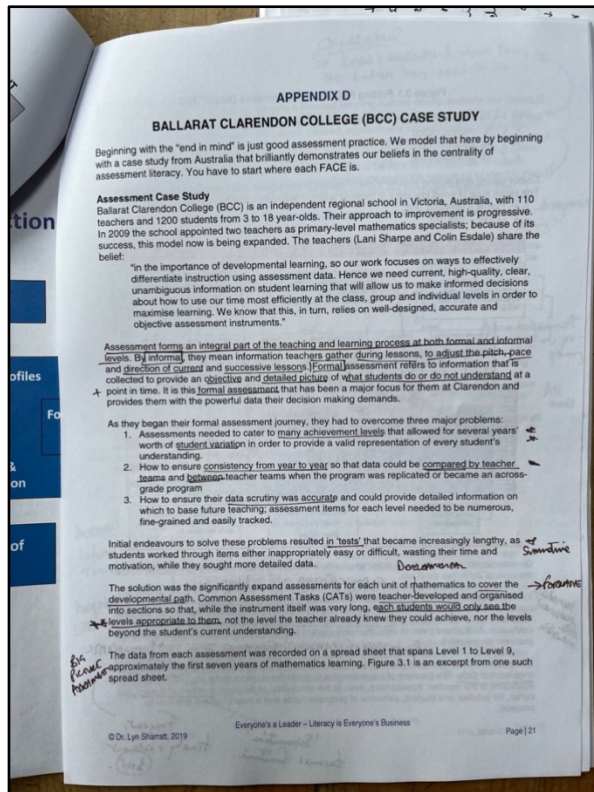
- Links made to 14P
- Training day activities used in staff meetings/ PL sessions
- Interactive sessions used to un-pack examination results
- Recognition that all staff need to attend
- Drive the work throughout the school
- **Knowledge Mobilisation** and the value of the **Learning Fair** to share every schools’ journey, resources and artefacts created along the way – examples from around the world:
  - **Example shared** – shows how all teachers have to see what has been tried and what strategies have worked for students – use of QR codes to share detailed information in one place
  - **Example shared** – Visual map of the school’s journey created to show and learn from steps taken
  - **Example shared** – 6 rural schools sharing data, connecting through technology, committing to support the learning of ALL their students, collectively (P14), use of collaborative CMM, collective data walls, using exemplars of student writing from all 6 schools and video conferencing to discuss selected student work together to jointly moderate and agree expectations, share T&L strategies and reinforce agreed expectations
  - **HTs invited to sit with another school** team table to share their Homework – more knowledge mobilisation, supported by RL on each table
  - Emphasis on importance of **keeping a record of conversations** and the process used so it can be adapted for own schools
- **Assessment Waterfall Framework (AWF)** – diagnostic assessment is assessment for learning and requires students to get involved in setting their own goals for learning
- Use of the **AWF** as a self-assessment tool for teachers to identify what they are confident on and where they would like to develop practice in terms of assessment literacy
- **Assessment language** (for, as and of learning) (graphic on slide) adapted into: BEFORE – DURING – AFTER – importance of using summative (AFTER) learning assessment to inform next steps (BEFORE), so assessment becomes a cycle

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### 3.11 - Sample documents used as part of document analysis



# An exploration of "Schools as Learning Organisations" as a catalyst for school and system change



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## 3.12 Excerpt from research journal & project log (anonymised)

<p><b>CONTEXT:</b></p> <ul style="list-style-type: none"> <li>• <b>SCHOOLS RETURN AFTER EASTER HOLIDAY</b> – Full return to school (all ages) post lockdown</li> <li>• <b>COVID &amp; National Lockdown arrangements</b> – continue to ease as COVID rates decrease and vaccination rates increase</li> <li>• <b>Arrangements for schools for full return - Welsh Government update:</b> <a href="https://gov.wales/schools-coronavirus-guidance#section-59608">https://gov.wales/schools-coronavirus-guidance#section-59608</a></li> <li>• Media coverage of how schools are continuing to adjust to COVID: <a href="https://www.walesonline.co.uk/news/education/what-schools-wales-look-like-20360028">https://www.walesonline.co.uk/news/education/what-schools-wales-look-like-20360028</a></li> </ul>		
<p><b>CURRENT CONTEXT</b></p>	<p><b>COVID-19 still affecting context and situation in schools.</b></p> <p><b>Wales accelerates easing out of National Lockdown in response to reduced COVID cases.</b></p> <p><b>On-going – continued high levels of collaboration across wider LCL team – all appreciative for the purposeful relationships and central LCL Coordination with RL team who remain in direct contact with schools.</b></p> <p><b>AERA conference taking place online – LCL Project paper presented to international audience</b></p> <p><b>7<sup>th</sup> Webinar planning and live stream set to take place next week.</b></p>	<p>No webinars this or next week (Next live session 21<sup>st</sup> April 2021 – team rehearsal ahead of this)</p>

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<p><b>COMMUNICATIONS/ DATA CAPTURE &amp; ANALYSIS</b></p>	<p><b>TEAM updates</b></p> <ul style="list-style-type: none"> <li>○ AERA conference underway – paper delivered to international audience</li> <li>○ Arrangements for interviews (post-webinars) with [REDACTED] Underway to capture reflections on webinar delivery of project resources</li> <li>○ Interviews with Case Study Schools under review – considerations for capacity/ timeline planned into project (additional data capture and analysis PLUS interviews with system leaders) - to be discussed this week</li> <li>○ <b>TEAM MEETING – Wednesday 14<sup>th</sup> April 2021</b></li> </ul> <p><b>DATA CAPTURE</b></p> <ul style="list-style-type: none"> <li>○ TO DO: Design of semi-structured interview schedule for [REDACTED] 2<sup>nd</sup> interviews.</li> <li>○ TO DO: Arrangements for interviews with all involved in webinar planning and delivery.</li> </ul> <p><b>Continuation of training schedule – REMOTE LCL WEBINAR 7 w/b 21<sup>st</sup> April 2021</b></p> <ul style="list-style-type: none"> <li>○ Planning Webinar 7 - Tuesday 20th April 2021 – rehearsal @ 4pm</li> <li>○ Live stream Webinar 7 – Wednesday 21<sup>st</sup> April 2021 – begins @ 3.30pm + Live @ 4pm Assessment Part 2</li> <li>○ <b>DATA ANALYSIS – ongoing</b></li> <li>○ Visualizations of project timeline – updated to present day [REDACTED]</li> </ul>	<ol style="list-style-type: none"> <li>1. <b>On-going</b> - analysis of initial findings from coding of NPON from Webinar Live Stream and rehearsal sessions [REDACTED]</li> <li>2. Development of data capture plans following the narrative of the project - responding to COVID context – focusing on System Leaders <i>ship</i> practices and the ‘Learning System’ to establish the Welsh SLO.</li> <li>3. Inter-researcher-reliability to be clarified with member of [REDACTED] – <b>initial discussion completed and preparing to send sample document and code book</b> [REDACTED]</li> <li>4. Adjustments to COVID situation impacting on the narrative of the LCL Project and narrative – new data plan timeline created to align data capture to current context [REDACTED]</li> <li>5. <b>Design of semi-structured interview schedule for</b> [REDACTED] 2<sup>nd</sup> interviews</li> </ol>
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**ARCHIVE**

<p><b>W/B 29<sup>th</sup> March 2021 &amp; 5<sup>th</sup> April 2021</b></p>	<p><b>Progress/ Updates</b></p>	<p><b>Action/ Next Steps</b></p>
<p><b>CONTEXT:</b></p> <ul style="list-style-type: none"> <li>• <b>SCHOOLS EASTER HOLIDAY – 2 WEEK BREAK</b></li> <li>• <b>COVID &amp; National Lockdown arrangements</b> – easing – full return to school planned after Easter</li> <li>• Schools adjust to alternative assessment arrangements and welcoming students back to post-COVID school – emphasis on settling in, catching-up and checking in. Focus on student and staff wellbeing.</li> </ul>		
<p><b>CURRENT CONTEXT</b></p>	<p><b>COVID-19 still affecting context and situation in schools.</b>  <b>Wales easing out of National Lockdown.</b>  <b>On-going – continued high levels of collaboration across wider LCL team – all appreciative for the purposeful relationships and central LCL Coordination with RL team who remain in direct contact with schools.</b></p>	<p>No webinars this or next week (Next live session 21<sup>st</sup> April 2021 – team rehearsal ahead of this)</p>

An exploration of “Schools as Learning Organisations” as a catalyst for school and system change

<p><b>COMMUNICATIONS/ DATA CAPTURE &amp; ANALYSIS</b></p>	<p><b>TEAM updates</b></p> <ul style="list-style-type: none"> <li>○ Agreed next steps – 2<sup>nd</sup> interviews with ██████████ To follow the webinar series</li> <li>○ Collation of documents and materials from LCL Project Hwb Teams area – ongoing</li> <li>○ Initial analysis of x11 NPON from webinars (rehearsal &amp; live sessions) completed.</li> <li>○ Interviews with Case Study Schools reviewed - intended for post-Easter pending RL liaison and COVID situation.</li> </ul> <p><b>DATA CAPTURE</b></p> <ul style="list-style-type: none"> <li>○ Coding of NPON from WEEK 2 f2f training underway - for comparison with webinar training sessions ██████████</li> <li>○ Analysis and initial findings collated into one document and visualized further discussion - completed.</li> <li>○ Initial findings identifying patterns across webinars - increased capacity building emerging as a theme.</li> <li>○ Findings-workbook from initial analysis of webinars 1-6 completed and uploaded to LCL Project Teams area ██████████</li> <li>○ Design of semi-structured interview schedule for ██████████ 2<sup>nd</sup> interviews.</li> </ul> <p><b>Continuation of training schedule – REMOTE LCL WEBINAR 7 w/b 21<sup>st</sup> April 2021</b></p> <ul style="list-style-type: none"> <li>○ Planning Webinar 7 - Tuesday 20th April 2021 – rehearsal @ 4pm</li> <li>○ Live stream Webinar 7 – Wednesday 21<sup>st</sup> April 2021 – begins @ 3.30pm + Live @ 4pm Assessment Part 2</li> <li>○ <b>DATA ANALYSIS – ongoing</b></li> <li>○ Visualizations of project timeline – updated to present day ██████████</li> </ul>	<ul style="list-style-type: none"> <li>6. <b>On-going</b> - analysis of initial findings from coding of NPON from Webinar Live Stream and rehearsal sessions ██████████</li> <li>7. Development of data capture plans following the narrative of the project - responding to COVID context – focusing on System Leadership practices and the ‘Learning System’ to establish the Welsh SLO.</li> <li>8. Inter-researcher-reliability to be clarified with member of ██████████ – <b>initial discussion completed and preparing to send sample document and code book</b> ██████████</li> <li>9. Adjustments to COVID situation impacting on the narrative of the LCL Project and narrative – new data plan timeline created to align data capture to current context ██████████</li> <li>10. <b>Coding analysis of NPON from Week 2 F2F training sessions for comparison with webinar training sessions</b> ██████████</li> <li>11. <b>Design of semi-structured interview schedule for</b> ██████████ 2<sup>nd</sup> interviews</li> </ul>
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3.13 Challenges addressed in survey design

Design problem	Design solution
Variable recall of respondents’ memories	<ol style="list-style-type: none"> <li>1. Limit the number of questions relating to specific events (e.g., Training weeks)</li> <li>2. Design questions relating to specific events as closed questions, requiring respondents to rank their responses using a Likert scale</li> </ol>
Potential response bias and variation according to respondents’ role within the system	<ol style="list-style-type: none"> <li>1. Survey requires respondents to identify their role at the start of survey – this can be considered when analysing the data</li> </ol>
Low response rate	<ol style="list-style-type: none"> <li>1. Survey was kept open for the entire duration of the second phase (second ¼ of the project *)</li> </ol>



## An exploration of “Schools as Learning Organisations” as a catalyst for school and system change

	<p>Project Coordinator and Regional Leads promoted participation in the survey and shared the link with project schools*</p> <ol style="list-style-type: none"> <li>Contingency plan in-place to allow for project participants to complete the survey during 3<sup>rd</sup> Training Week*</li> <li>Web based survey accessible from all devices and locations with internet access</li> </ol> <p><i>*Paused owing to COVID-19 disruption to whole system – data not collected</i></p>
Ambiguities and misunderstandings of survey questions not detected	<ol style="list-style-type: none"> <li>Pre-pilot: Informal testing of survey with research colleagues to identify errors, inconsistencies, or ambiguities in questions</li> <li>Pilot: Formal piloting process with representative group drawn from the wider project population to identify technical errors, misconceptions, and confusions in (a) technical operation (b) the question structures and content</li> <li>Software selected based on accessibility, simple user interface and ability to tailor questions to target audience</li> <li>Closed questions included options that sought to clarify the meaning and expectations of the questions (Bryman, 2016)</li> <li>Open questions, with opportunities to comment, provided respondents with the option to expand on their response and highlight any confusion or misconception with the question</li> </ol>
Bias (question design, time to complete, setting)	<ol style="list-style-type: none"> <li>Pre-pilot: Feedback on question design sought from experienced research colleagues as part of the informal testing process</li> <li>Pilot: Feedback on question design sought from representative group from project population</li> <li>Respondents able to complete survey in their own time, able to start and then come back to it before final submission</li> <li>Respondents able to complete the survey in their own setting</li> </ol>
Respondent fatigue and low completion rates	<ol style="list-style-type: none"> <li>The survey was designed to take a maximum of 25 minutes to complete (in reality – 18 minutes average time).</li> <li>Pilot: The piloting process verified accurate timings of the length of time to complete. This information was included in the communication to participants with the survey link and on opening page of the survey to inform respondents’ expectations</li> <li>Question formats were varied (open, closed, ranking scales, opportunities for comments) and balanced between closed and open questions to ensure high levels of engagement throughout the survey and completion rates</li> <li>Pre-pilot and pilot feedback resulted in limiting the number of ‘Required’ questions to a small number of open questions to reduce the requirement for respondents to make comments for every question</li> <li>Adopting a mixture of open and closed questions ensured some data could be gathered from all surveys, increasing the effectiveness of this method in gathering data from the whole project population</li> </ol>
Concerns about anonymity and confidentiality	<ol style="list-style-type: none"> <li>Participant information detailing the scope and remit of the project and the place of the survey within this was included on the opening page of the survey link</li> <li>This statement repeated the ethical and GDPR conditions and requirements of the project guaranteeing anonymity for respondents and option to withdraw at any point without giving a reason</li> <li>The software required participants to create a pseudonym for the survey to prevent identification and allow for respondents to repeat the survey in the latter phase of the project.</li> <li>Only by giving explicit consent (‘Yes’ or ‘No’) after reading the information statement could participants gain access to the survey questions. Responding ‘No’ to this first question prevented access to the questions and automatically routed the participant out of the survey.</li> </ol>

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### 3.14 Excerpt from final online survey – anonymised opening page (information & consent)

## Leading Collaborative Learning (LCL) Project - Online Survey

Thank you for agreeing to complete the first of two online surveys for the Leading Collaborative Learning Project.

Your survey responses will be given a unique code as an 'identifier', which will ensure your responses remain anonymous and confidential. Data from survey responses will only be viewed by the researcher/research team and will only be used for the explicit purposes of the project.

Your participation in all aspects of the Leading Collaborative Project Development and Research (D&R) Study is voluntary and you can decide not to complete or submit this online survey and/ or withdraw from the D&R study at any point, without giving a reason. Any data will then be destroyed, and you will be removed from the project.

If you would like more information, please email!

Additional information:

The data controller for this project will be Swansea University. The University Data Protection Officer provides oversight of university activities involving the processing of personal data, and can be contacted at the Vice Chancellors Office:

Your data will be processed in accordance with the Data Protection Act 2018 and the General Data Protection Regulation 2016 (GDPR).

Thank you for taking the time to complete the pilot survey and providing us with feedback on how the survey works for you before we launch it to all participants in the LCL Project.

...

*Return → p.Error! Bookmark not defined.*

### 3.15 Location, modes, & methods of interview – reliability, positionality & ensure validity

Study Participant	Medium	Researchers present	Recording strategy
International Expert x1	Skype audio only	x2 – different locations	X2 Digital devices
International Expert x1	Audio only (speakerphone)	x2 – same location	X2 Digital devices
International Expert x1	Zoom video conferencing	x3 – different locations	Zoom software Digital Device
Welsh Government x1	Zoom video conferencing	X2 – different locations	Zoom software Digital device
Welsh Government x1	Zoom video conferencing	X2 – different locations	Zoom software Digital device
Wider System Leaders x2	Zoom video conferencing	x3 – different locations	Zoom software Digital device
Regional Leads x3	Zoom video conferencing	x2 - different locations	Zoom software Digital device
Regional Leads x2	Zoom video conferencing	x3 – different locations	Zoom software Digital device
Challenge Advisers x2	Zoom video conferencing	x3 – different locations	Zoom software Digital device
Challenge Advisers x1	Zoom video conferencing	x2 – different locations	Zoom software Digital device
Case Study School -School Leader(s) & Focus Group Teachers (PILOT)	In-person	x2 – same location	X2 Digital devices

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3.16 Semi-structured interview design considerations

Consideration	Decision	Design inclusions
Who to ask?	Representatives from three tiers of Welsh education system	International experts (SLOs) Policy makers System leaders project participants from school settings
What to ask?	Intentions, processes, and outcomes related to the project and conceptual framework	<ul style="list-style-type: none"> <li>• Policy context and development</li> <li>• Leadership of change processes, SLOs policy and implementation</li> <li>• Creation of generic and Welsh SLO models</li> <li>• Delivery and content of training sessions</li> <li>• Contextual, setting, and cultural factors</li> </ul>
How many interviews are required?	Representation of the experience until saturation	International experts (x2) External facilitator (x1) Welsh Government (x2) Wider system leaders (x2) Regional Leads (x5) x11 Case Study Schools (Senior Leadership Team* and Teachers) from all regions
How to store the data?	In line with ethical considerations	In accordance with ethical and GDPR considerations
How to analyse the data?	Integrated throughout the project and final analysis procedures detailed in Chapter 4	<ol style="list-style-type: none"> <li>1. Initial reflective summary notes immediately after interview</li> <li>2. Full transcription of all audio recordings</li> <li>3. Initial identification of themes and patterns from transcriptions</li> <li>4. Software tools for deep analysis (Atlas.ti)</li> <li>5. Systematic process of triangulation and integration of data throughout the duration of the project</li> </ol>

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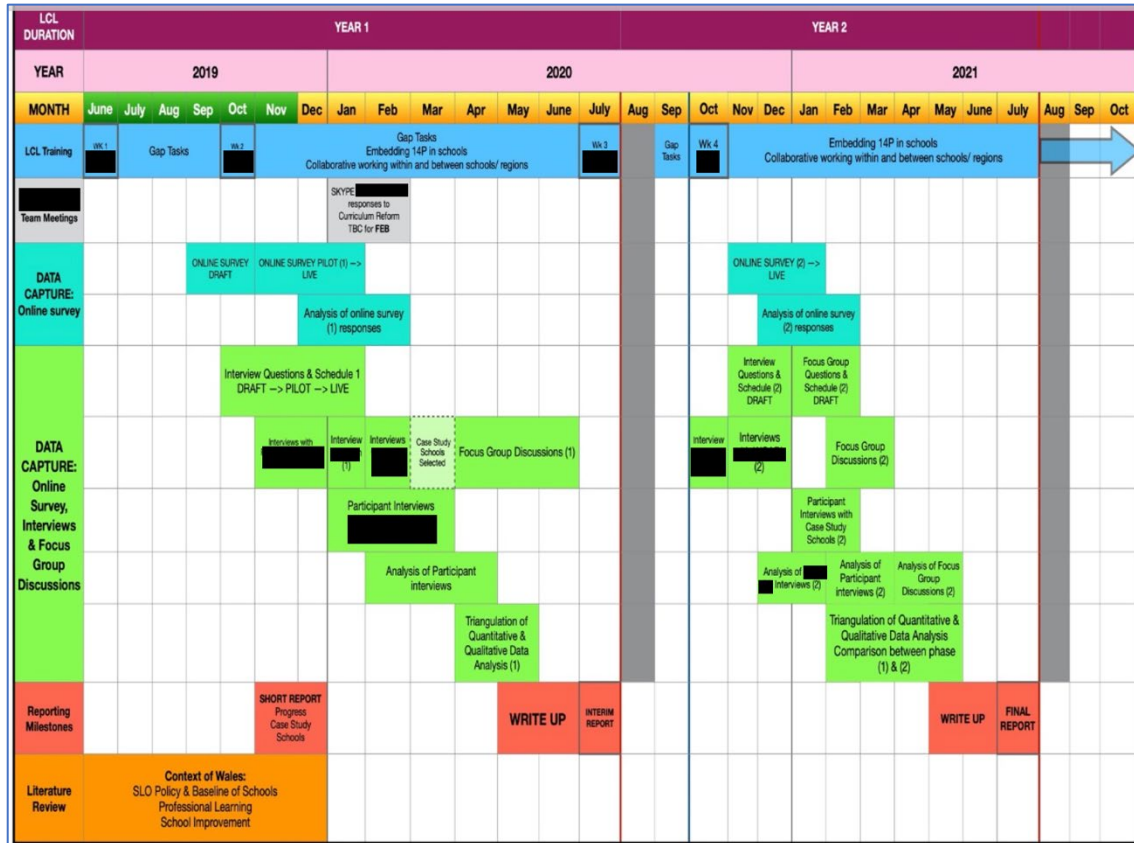
An exploration of “Schools as Learning Organisations” as a catalyst for school and system change

## Appendix 4

### Chapter 4 - Data analysis

#### 4.1 Contingency data collection plans

##### (a) ORIGINAL project plan (October 2019)





An exploration of “Schools as Learning Organisations” as a catalyst for school and system change

(d) Contingency webinars – rehearsal & planning and live streamed remote training sessions - data capture plan (January 2021 – July 2021)

**LCL PROJECT - Schedule for remote collaborative professional learning sessions - rehearsal sessions and x10 professional learning webinars (confirmed 1st December 2020 updated 07JAN20201)**

2020	2021						
December	January	February	March	April	May	June	July
PLANNING THURSDAY 10th 14.00 Getting back on track	PLANNING WEDNESDAY 20th 16.00-16.45 Practice session 1	PLANNING WEDNESDAY 3rd 16.00-17.00 Practice session 3 Putting Faces on Your Data	PLANNING TUESDAY 2nd 16.00-17.00 Practice session Case Management Meetings	PLANNING TUESDAY 20th 16.00-17.00 Practice session Assessment waterfall unpacked	PLANNING TUESDAY 18th 16.00-17.00 Practice session Learning walks and talks	PLANNING TUESDAY 15th 16.00-17.00 Practice session Instructional intelligence	TUESDAY 6th 16.00-17.00 Rehearsal Virtual Learning Fair
	WEBINAR 1 THURSDAY 21st 16.00-17.00 Non-negotiables	WEBINAR 3 THURSDAY 4th 16.00-17.00 Faces on the data	WEBINAR 5 WEDNESDAY 3rd 16.00-16.00 Case Management Meetings	WEBINAR 7 WEDNESDAY 21st 16.00-17.00 Assessment Waterfall Unpacked	WEBINAR 8 WEDNESDAY 19th 16.00-17.00 Learning Walks & Talks	WEBINAR 9 WEDNESDAY 16th 16.00-17.00 Instructional Intelligence	WEBINAR 10 WEDNESDAY 7th 16.00-17.00 Virtual Learning Fair
<b>Role of Research Team:</b> • Attend all rehearsals and live webinars • Non-participant observation notes to be taken during webinar sessions as part of the research team data capture process	WEBINAR 2 THURSDAY 25th 16.00-17.00 Recap - Non-negotiables	PLANNING TUESDAY 23rd 24.30 - 15.30 Practice session 4 Data Walls	PLANNING TUESDAY 9th 16.00-17.00 Practice session Assessment Literacy	<ul style="list-style-type: none"> <li>Rehearsal sessions will take place the day before the live webinar - RLs, Research Team to attend rehearsals and live events</li> <li>All LCL Project Schools invited to attend the webinars</li> <li>Roles and contributions to be clarified during rehearsals</li> <li>All webinars will be recorded and accessible to LCL Project Schools unable to attend during live event via HwB</li> <li>Regional Leads to work closely with LCL Project Schools to prepare for Learning Fair contributions</li> <li>All contributions from LCL project schools will be collated and uploaded to HwB area to ensure schools continue to share knowledge and practice</li> </ul>			
		WEBINAR 4 WEDNESDAY 24th 16.00-17.00 Data Walls	WEBINAR 6 WEDNESDAY 10th 16.00-17.00 Assessment Literacy				

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4.2 Completion process of semi-structured interviews with system leaders

Semi-structured interviews	Role of participant	Number of interviewers	Mode of interview	Mp3 file (Raw data)	Mp4 file (Temporary backup)	Summary notes and memos generated within 48hrs of interview	Full transcript uploaded for analysis
Question format 1	International Experts (x3)	2	Conference call – (telephone) audio only	Y	N	Y	Y
		2	Online – (Skype) audio only	Y	N	Y	Y
		3	Online (Zoom)	Y	Y	Y	Y
Question format 2	System Leaders (x3)	3	Online (Zoom)	Y	Y	Y	Y
		3	Online (Zoom)	Y	Y	Y	Y
		3	Online (Zoom)	Y	Y	Y	Y
	Regional Leads (x5)	3	Online (Zoom)	Y	Y	Y	Y
		3	Online (Zoom – audio only)	Y	N	Y	Y
		2	Online (Zoom)	Y	Y	Y	Y
		3	Online (Zoom)	Y	Y	Y	Y
	Challenge Advisers (x4)	2	Online (Zoom)	Y	Y	Y	Y
		3	Online (Zoom)	Y	Y	Y	Y
		3	Online (Zoom)	Y	Y	Y	Y
3		Online (Zoom)	Y	Y	Y	Y	

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4.2 Rationale and coding process for NPON (remote planning & live streamed webinars)

<p><b>Non-participant observation notes – webinar sessions – the analysis process</b></p> <p>Overview and summary of the coding approach to the non-participant observation notes generated from the webinar rehearsal sessions and live streamed sessions (x11).</p> <p><b>Organising the data</b></p>
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Document group created for NPON from webinar sessions – x11 documents in total – covering sessions 1-6 (January – March 2021)

Documents include notes from observed rehearsal and live delivery webinar sessions, and include photographs of relevant slides and reflective notes mainly aligned to main themes, sub-themes and including observations/ commentary on emergent themes

**Analysing the data**

Use of search text function in Atlas.ti to apply existing codes (main and sub) to the texts – including researcher’s observation notes and initial coding and commentary to gain a feel for significant themes, key messages, and codes in the data.

Ten new emergent codes were identified across the data which were then included in the main coding function of software as they emerged. New codes were allocated to the most relevant five main themes and analysed across the 11 NPON documents from the webinar sessions

*New emergent codes from NPON:*

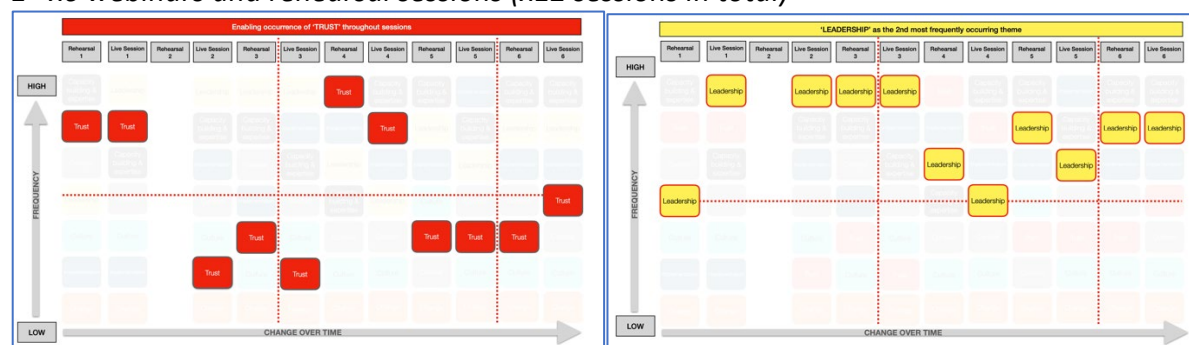
MAIN THEMES	CHANGE	CONTEXT	CULTURE	LEADERSHIP	TRUST
Sub-codes	Impact	Relevance	Learner-focused	Effective Practice	Relational Expertise
		Technology	Resilience		Relational Agency
			Opportunities		Common knowledge
					Learning

Note: this is different to the coding of the semi-structured interview transcripts, as these codes reflect far more of the insights, perceptions, and interpretations of the individual observer than the words and inferences gained from participants’ own voices and responses to direct questions.

New codes to be searched for as part of the refinement and checking phase of the analysis semi-structured interviews, using the same text search.

4.3 Samples of visualisations as data analysis

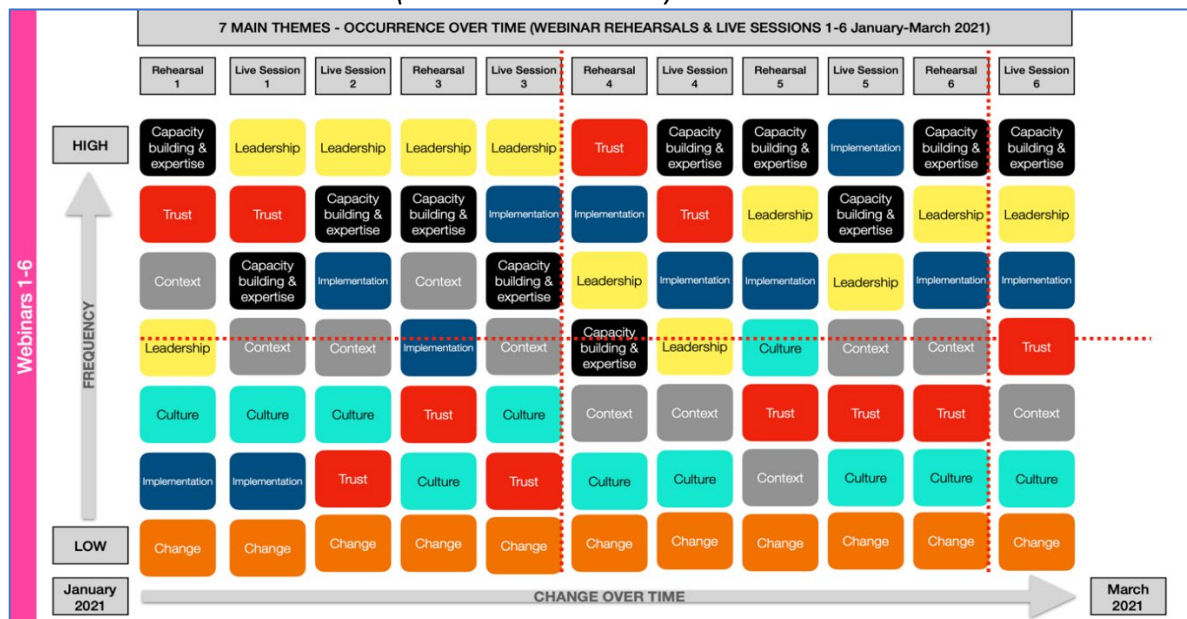
(a) Webinar analysis – Comparison of MAIN THEMES: TRUST & LEADERSHIP – frequency over 1<sup>st</sup> x6 webinars and rehearsal sessions (x12 sessions in total)



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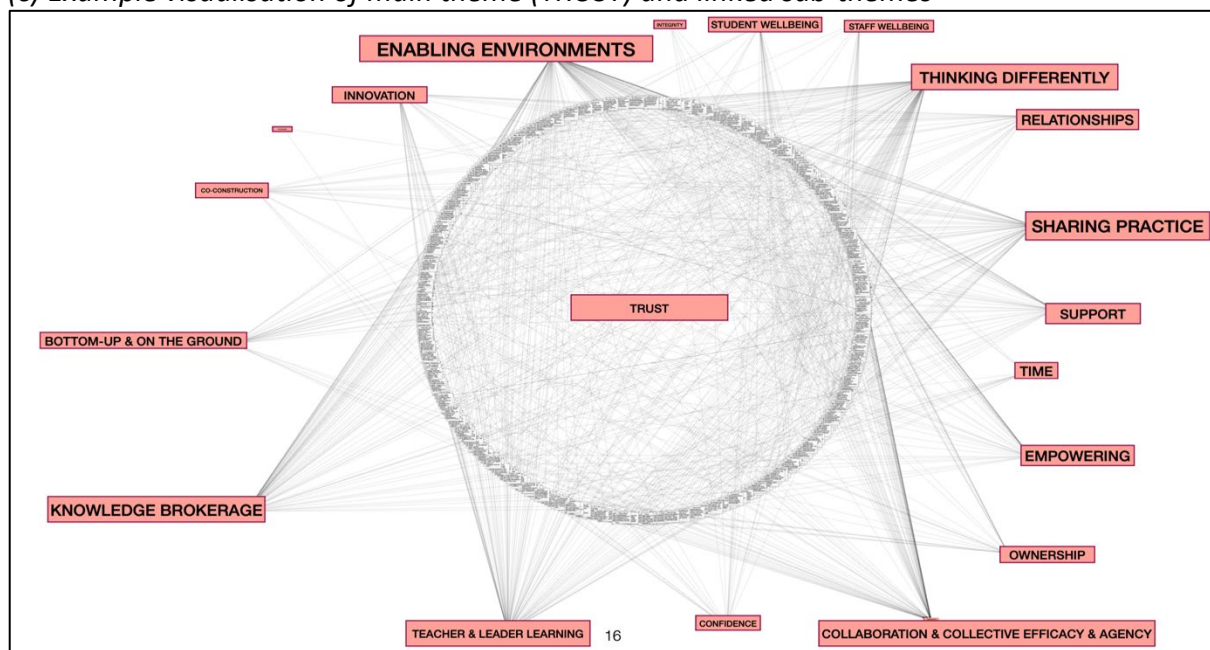
An exploration of “Schools as Learning Organisations” as a catalyst for school and system change

(b) Early visualisation of x5 MAIN THEMES (plus emergent theme) - frequency over 1<sup>st</sup> x6 webinars & rehearsal sessions (x12 sessions in total)



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(c) Example visualisation of main theme (TRUST) and linked sub-themes

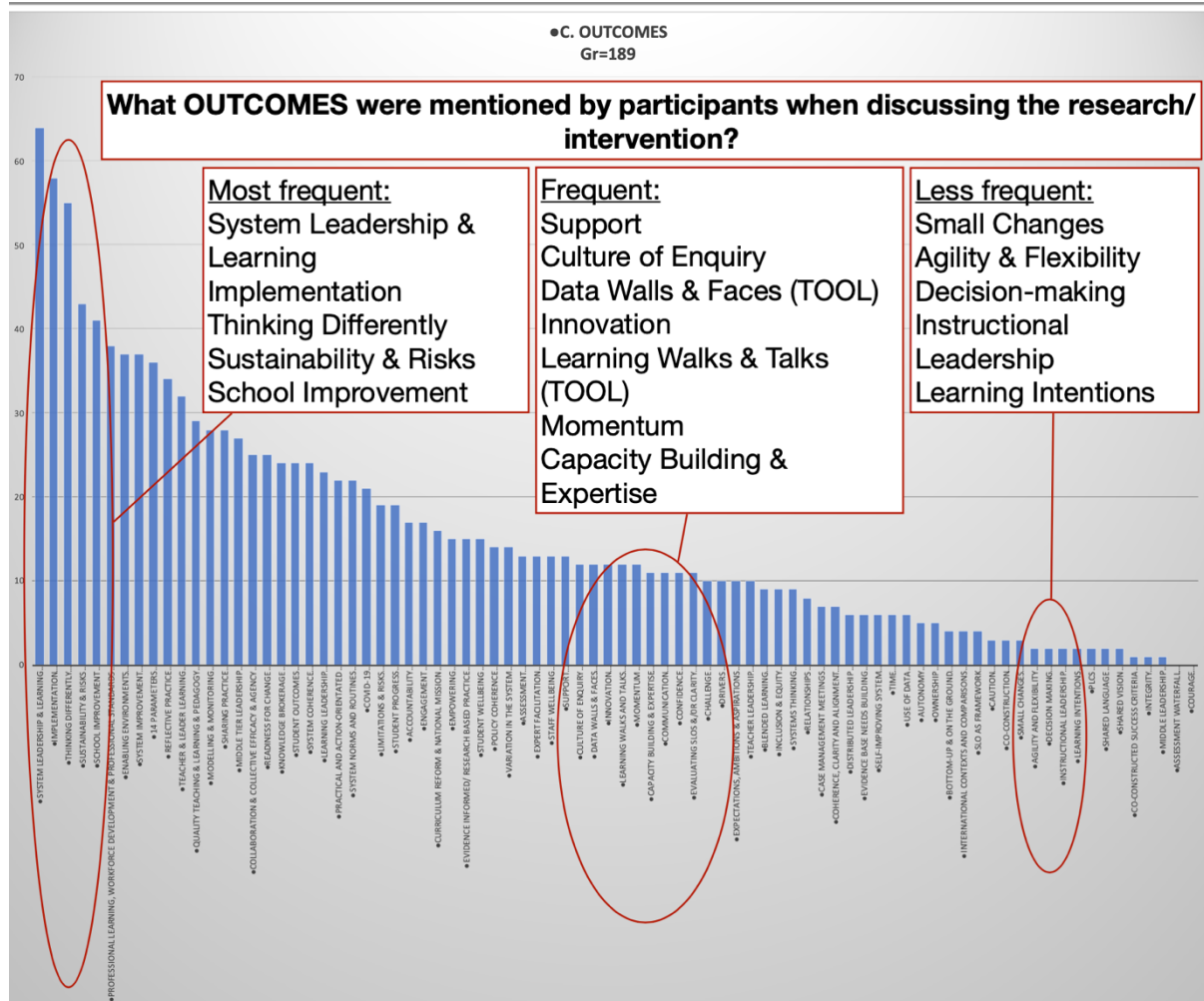


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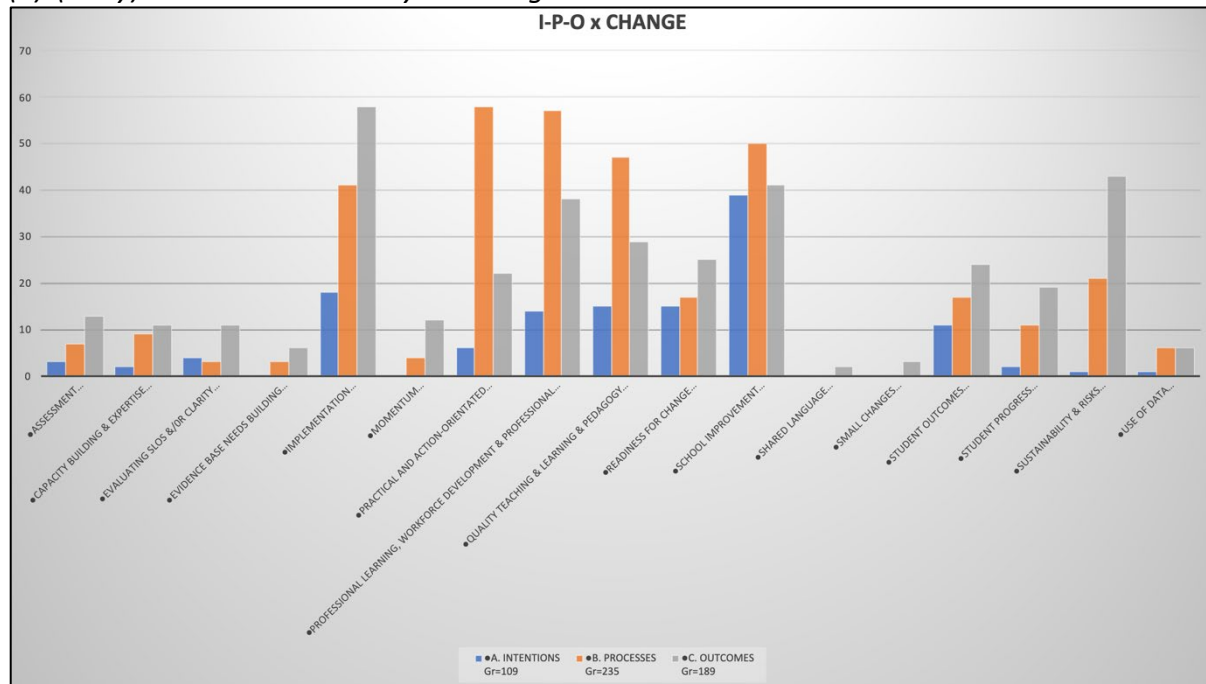
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(d) Visualisation analysis of IPO (Outcomes)



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(d) (Early) cross-sectional analysis through visualisation IPO x CHANGE

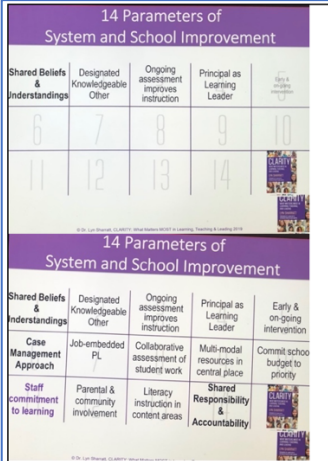



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4.4. Sample of NPON from remote sessions

COLUMNS: 1. Photographs of slides public view 2. Detail of content delivered 3. Codes/ themes/ notes

 <p>14 Parameters of System and School Improvement</p> <p>Shared Beliefs &amp; Understandings   Designated Knowledgeable Other   Ongoing assessment improves instruction   Principal as Learning Leader   Early &amp; on-going intervention</p> <p>6   7   8   9   10</p> <p>11   12   13   14</p> <p>Case Management Approach: Job-embedded PL, Collaborative assessment of student work, Multi-modal resources in central place, Commit school budget to priority</p> <p>Staff commitment to learning   Parental &amp; community involvement   Literacy instruction in content areas   Shared Responsibility &amp; Accountability</p>	<p>Links to 14Ps – BIG PICTURE</p> <p>Using pieces of data to inform our next steps</p> <p>Links made to Fullan – research underpinning the 14Ps</p> <p>Underpinning 14Ps = Leadership accountability</p> <p>Accepting that “we’re all leaders – teachers &amp; leaders”</p>	<p>14Ps</p> <p>School Improvement</p> <p>System improvement</p> <p>Research links</p> <p>Accountability</p> <p>Shared responsibility</p> <p>LEADERSHIP CHANGE</p> <p>Distributed leadership</p> <p>Teacher leadership</p> <p>Collegiate</p> <p>Team-ness</p> <p>Coherence</p> <p>Links across all the work</p> <p>Professional learning</p>
 <p>EQUITY &amp; EXCELLENCE!</p> <p>THE THIRD TEACHER</p> <p>Collaborative Culture of Learning</p> <p>No ‘Sub-Group’ should do better than another!</p>	<p>Focus on EQUITY &amp; EXCELLENCE as part of rationale for the work to be covered in all of this work</p> <p>Connection to all 14Ps and everything weaving together – not as hierarchy but as parts of a whole approach to school &amp; system improvement</p> <p>Surrounded by the THIRD TEACHER and Collaborative Culture of Learning</p> <p>Equity &amp; Excellence – achievable for ALL students</p> <p>All about growth, learning &amp; achievement</p> <p>Begin every session with data</p>	<p>Equity &amp; excellence</p> <p>14Ps</p> <p>Coherence</p> <p>Systems thinking</p> <p>School Improvement</p> <p>System improvement</p> <p>CULTURE</p> <p>Enquiry</p> <p>All students</p> <p>Learner-centred</p> <p>Data</p> <p>Assessment</p>

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4.5. Quality assurance processes

Principle		Application to this study
Sensitivity to Context	Contextualising the research	<p>Design of semi-structured interviews informed by ‘relevant theoretical and empirical literature’ of:</p> <ul style="list-style-type: none"> <li>○ Learning Organisations</li> <li>○ Schools as Learning Organisations</li> <li>○ Professional Learning</li> <li>○ School and System Leadership</li> <li>○ School Improvement and Reform,</li> <li>○ Professional Capital</li> <li>○ Welsh Education Policy</li> <li>○ Welsh Education system organisation</li> </ul>
	Sensitivity to participants’ perspectives	<p>Design of data collection tools – semi-structured interview design informed by Contextual and Research Frameworks</p> <p>Opening questions of semi-structured interviews focused on participants’ role within the Welsh education system, their relationship and personal professional understanding of the Welsh SLO model and the <i>intentions, processes, and outcomes</i> of the study intervention</p>

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	Sensitivity to ethical concerns	<p>Information and consent forms emailed to all participants prior to interview, specifying the recording, storing, and sharing of data (see ethical concerns CH3).</p> <p>Consent forms were returned by every participant prior to the interview taking place.</p> <p>Interview protocols included starting every interview with an introduction to the participants of the researchers, to build rapport, accompanied with a repetition of the information in prior communications and the consent forms – a full explanation of the purpose of the interview, how the data would be used and shared and stipulating that permission from participants for any use of direct quotations would be requested prior to publication, using non-attributable quotes, retaining participant anonymity throughout.</p> <p>Verbal consent (in addition to written consent) was secured at the beginning of each interview in response to this. Options for ‘off the record’ aspects to the interview were explained, where the recording could be paused or terminated at any point, with no reason given, if the participant requested</p>
	Sensitivity to the data	<p>Participant responses were recorded using MP3 (and MP4 for backup only) and researcher-notes during the interviews to ensure accuracy in recording the exact words of the participants.</p> <p>Clarification on information shared by the participants was sought by the lead interviewer and, if necessary, followed up by the co-researcher to ensure accuracy and authenticity, avoiding any imposition of the researcher’s view or interpretation of the information shared.</p> <p>Closed codes drawn from the conceptual and research frameworks were used to initially organise and reduce the data, followed by open codes generated from the data to clarify, categorise, and remain open to alternative, contrasting or emerging themes presented by the data, maintaining a dynamic and responsive approach to the data analysis process</p>
Commitment and rigour	Thorough data collection	<p>14 semi-structured interviews were conducted with research participants, using the almost identical logistical arrangements, interview protocols, interview formats, schedules, and allocation of questions between researchers and attended by the same members of the research team - at least two and typically three researchers at every interview.</p>
	Breadth and depth of analysis	<p>Data from every interview was collected and analysed using an agreed procedure (see ‘data collection process’) the only variance was that two of the 14 interviews were conducted using a telephone conference call as opposed to an online video call (Zoom software).</p> <p>Shared procedures and agreed protocols meant that direct comparison of the data could be undertaken, participants had a common, equitable experience of the interview process and variables were reduced.</p>
	Methodological competence and skill	<p>The data was collected by one PhD student supported by two highly experienced educational researchers. Methods were discussed and agreed upon by the three researchers and aligned to both the focus of the research and methodology of the research design</p>
	In-depth engagement with topic	<p>All three researchers have extensive academic and practical experience of working in this field and are employees of Swansea University School of Education (Professor/ Deputy Head of School</p>

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		and PhD/ Lecturer PGCE and Researcher) PhD student (25 years' experience of working in multi-school settings in school leadership, improvement, and professional learning)
Transparency and coherence	Clarity of representation of data	Use of visualisations as part of constant comparison and interpretative approaches Use of spreadsheets/ charts as part of quantitative analysis relating to frequency, code variability and consistency
	Fit between research questions, frameworks and methods	Data collection and analysis methods selected in response to explorative approach, adoption of mixed methods and constructivist realist paradigmatic stance underpinning the research design. Research framework (RF) concurrently with the conceptual framework (CF): RF to organise and reduce the data and maintain alignment to the design of the semi-structured interviews CF used to identify and clarify general and emergent themes in the data analysis
	Transparent account of data collection and analysis processes	Details of data collection and analysis included in this chapter (Chapter 4) including appendices with data collection tools used, processes and protocols followed and screenshots at significant stages of data analysis using Atlas.ti
	Reflexivity concerning decisions relating to the research design	Reflections on data collection processes and analysis included throughout this chapter (Chapter 4), links made to CH 1 (context) and supported by relevant theoretical literature and aligned with the research design included in Chapter 2 (Literature) and Chapter 3 (Methods and Methodology)
Impact and importance	Practical applicability	Exploration of the Welsh SLO model and its potential for system and school leaders and policy makers to realise the Welsh SLO model as a driver for school and system improvement and provide practitioners with an empirical evidence base for an 'implementation bridge' (study intervention/ curriculum reform)
	Theoretical impact	Presentation of a new theoretical understanding of the implementation bridge(s) required for the Welsh SLO model to bring about school and system improvement from an empirical evidence base
	Socio-cultural impact	Presentation of the Welsh SLO model as a driver for 'excellence and equity' (Harris & Jones, 2020b) contributing to 'positive social change' (Braun & Clarke, 2013) for all pupils and school communities

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### 4.6. Sample excerpt of coded transcription from remote interview

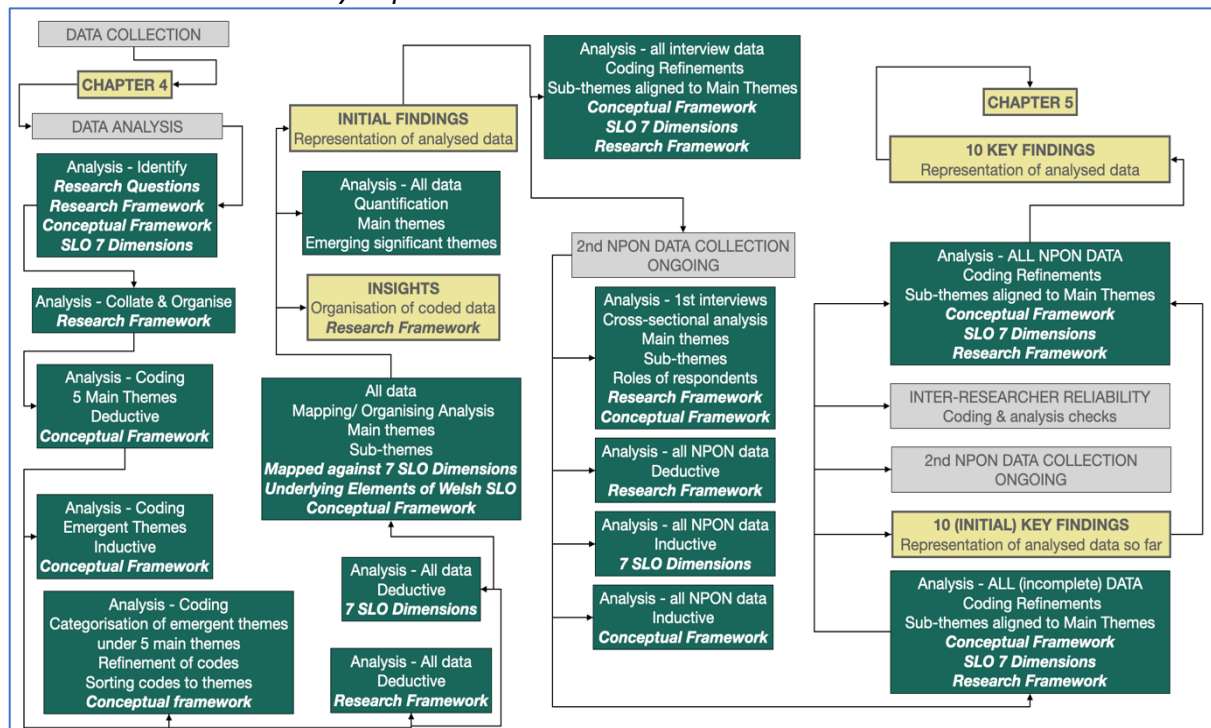
whatever it is but can we just find an intelligent, robust way through the problems that we're experiencing and come back to the table in another month to work this through and we'd have younger teachers in that mix as well, not just your sort of hierarchical board that has this kind of overview of it and there would be a lot of flow through  
40 //---14.08---//  
41 //...14:51...//  
42 Coherence is the thing the system is lacking  
43 //---14.57---//  
44 //...15.29...//  
45 And I think during COVID as well during this period of time  
46 //---15.31---//

Station to...to HE ...  
School Improvement  
System coherence  
System leadership & learning  
TRUST  
COVID-19  
Bottom-up & on the ground  
Collaboration & collective ef...  
Enabling environments  
Evidence informed/ researc...  
Knowledge brokerage  
Practical and action-orienta...  
Sharing practice  
Support  
System Improvement  
System leadership & learning  
TRUST

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# An exploration of “Schools as Learning Organisations” as a catalyst for school and system change

## 4.7. Concurrent data analysis process




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## 4.8. Samples from data code book (generated by Atlas.ti)




### (a) System leadership & learning (sub-code)

- **System leadership & learning**  
**Created:** 03/07/2020 by Zoe Elder, **Modified:** 06/07/2020 by Zoe Elder  
**Linked Codes:**  
 - is associated with → ● IMPLEMENTATION  
 - is property of → ● LEADERSHIP  
**Groups:**  
 ● LEADERSHIP  
**Comment:**  
 References to wider collaborative approaches school-to-school and region-to-region. Actively seeking opportunities to strengthen connections and build social capital across the system through collaborative approaches, Middle Tier support and leadership. Clear focus on purpose of learning, values as drivers to ensure collaboration is a priority to share knowledge and expertise. Links to: TRUST - enabling environments, confidence and courage and CULTURE - engagement and drivers
- **Systems thinking**  
**Created:** 26/08/2020 by Zoe Elder, **Modified:** 26/08/2020 by Zoe Elder  
**Groups:**  
 ● LEADERSHIP  
**Comment:**  
 Reference is made to the bigger picture and organisational or system needs beyond the immediate context OR immediate moment in time. LINKS to: CULTURE and TRUST

(b) Trust (main code)

 **TRUST**

**27 Codes:**

- **Accountability**  
**Created:** 02/10/2020 by Zoe Elder, **Modified:** 19/10/2020 by Zoe Elder  
**Groups:**  
 TRUST
- **Bottom-up & on the ground**  
**Created:** 26/06/2020 by Zoe Elder, **Modified:** 07/07/2020 by Zoe Elder  
**Groups:**  
 TRUST
- Comment:**  
Flat structures, giving access to leadership opportunities across the school and system foster high levels of trust. Leadership is often distributed where high levels of trust can be found and professionals are trusted to explore new approaches, be innovative and take risks with their practice. Professionals in high trust organisations also report high levels of agency, autonomy and affiliation and a sense of ownership of approaches. This links to the co-construction of the SHARED VISION, and KNOWLEDGE-SHARING to lead change and improvement
- **Co-construction**  
**Created:** 26/06/2020 by Zoe Elder, **Modified:** 07/07/2020 by Zoe Elder  
**Linked Codes:**
  - requires → ● Collaboration & collective efficacy & agency
  - ← requires - ● common knowledge
  - requires → ● Enabling environments
  - requires → ● TRUST**Groups:**  
 TRUST
- Comment:**  
Capacity building that serves to include all members of the system/ organisation and reflects a democratic 'flat' approach to involving all members of the system to contribute and collaborate.  
LINKS to:
- **Collaboration & collective efficacy & agency**  
**Created:** 02/07/2020 by Zoe Elder, **Modified:** 26/08/2020 by Zoe Elder  
**Linked Codes:**
  - ← requires - ● Co-construction
  - ← involves - ● CULTURE
  - requires → ● Enabling environments
  - is associated with → ● IMPLEMENTATION
  - requires → ● TRUST

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# An exploration of “Schools as Learning Organisations” as a catalyst for school and system change

## 4.9 Samples from data code book (analogue)

<b>Culture of enquiry</b>	within it. LINKS to: TRUST - confidence, enabling environments, confidence and CHANGE - evidence-informed, LEADERSHIP - coherence, clarity and alignment
<b>Curriculum Reform &amp; National Mission</b>	Significant impact of the policy context and specifically, the curriculum changes underway during this research and the LCL Project. Connected to the National Mission, the Welsh SLO model and professional standards and approaches to professional learning
<b>Decision making</b>	Leaders enacting and modelling their values through the deployment of resources, systems and structures they establish
<b>Distributed Leadership</b>	Non-hierarchical leadership - where leadership is actively encouraged and facilitated at all levels of the system - leadership opportunities are deliberately created and developed within organisations and the system as a whole. Leadership viewed as PRACTICES rather than limited only to POSITION. LINKS to: TRUST - confidence, empowerment and enabling environments and CULTURE - expectations, ambitions and aspirations
<b>Drivers</b>	System drivers that galvanise, set directions and motivate change and exist to stimulate improvement strategies
<b>effective practice</b>	Pedagogical or leadership behaviours and practices considered to be 'ideal' or 'recommended'
<b>Empowering</b>	Conditions nurture agency and serve to stimulate and support practitioners and leaders to be innovative and proactive in improvement approaches
<b>Enabling environments</b>	Creating the ideal conditions for change by establishing system-wide eco-systems and learning systems
<b>Engagement</b>	Degree of engagement demonstrated by members of the system
<b>Evaluating SLOs &amp;/or CLARITY</b>	References to how the changes might be measured and what outcomes can be taken into account - relating to the SLO and/or the interventions
<b>Evidence base needs building</b>	Relates to the SLO but also to follow-up steps for the project intervention LINKS to sustainability

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<b>IMPLEMENTATION</b>	Factors to consider when adapting/ adopting any model for school improvement and leading change. Importance of identifying the relevance and adaptability of any model/ change process when individual schools are adopting/ adapting new approaches. When successful, reflects a dynamic system-wide mindset, change can be flexible enough to respond to local, individual and collective need
<b>Inclusion &amp; Equity</b>	Explicit approaches (policies, strategies and resources deployed) adopted by the system to be inclusive and address issues of inequity where they exist
<b>Innovation</b>	High trust promotes and supports new approaches and ideas, reflection and refinements leading to innovation of practice and approaches. LINKS to LEADERSHIP and CULTURE
<b>Integrity</b>	Where commitments are adhered to and actions are followed up
<b>International contexts and comparisons</b>	Mentions of international examples and variety of approaches adopted and subsequent impacts and experiences of the SLO model in particular and system change more generally
<b>Knowledge brokerage</b>	Common knowledge is actively developed and nurtured and shared across the system
<b>learner focused learning</b>	Explicit mentions where actions or statement are connected to learner outcomes
<b>learning</b>	General/ vague references or inferences of learning - organisational/ individual/ systemic
<b>Learning leadership</b>	Leaders demonstrating ability to learn through leading and centre their leadership on learning (student, staff and system) Leaders focus on classroom practice as the core business and T&L dominates meeting and discussion agendas, lead and modelled by leaders at all levels of the system to build decisional capital and grow leadership. LINKS with: MODELLING and MONITORING and TRUST -confidence, enabling environments and integrity
<b>Limitations &amp; risks</b>	Identification of factors that might limit the implementation, scaling and/or system reform that the SLO model and the LCL intervention might bring
<b>Middle Leadership</b>	Middle leadership in school settings which serves to build capacity, distribute leadership and knowledge throughout the school and make connections between strategic decisions and actions to design the correct

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<b>Middle Tier Leadership</b>	conditions for knowledge-generation, sharing and brokerage and everyday classroom practice. LINKS to: CHANGE and TRUST - Knowledge sharing, confidence and CULTURE - reflective practice
<b>Modelling &amp; Monitoring</b>	System wide support enacted through the 'middle tier' with deliberate planning, resourcing and support mechanisms established to ensure all tiers of the system are connected, can see and learn about, from and with each other. X-regional connections are mentioned along with in-regional collaboration to communicate and share knowledge about schools, resulting in coherent support for individual schools from the middle tier. LINKS to: TRUST - knowledge brokerage and sharing, CONTEXT - policy coherence and CULTURE - self-improving systems
<b>Momentum</b>	Leadership practices reflecting the shared vision and values of the leader to model follow-up and commitment. LINKS to: EXPERT FACILITATION and CHANGE and TRUST
<b>opportunities</b>	Pace of change during the project intervention, process of change following training sessions, sharing with school colleagues and implementing changes as a result of the training and new learning from the project intervention.
<b>Ownership</b>	Interruptions to the momentum and pace of the project caused by internal or external contextual factors (linked to CONTEXT)
<b>PLCs</b>	Taking Spillane's definition of culture - opportunities is one of 3 elements where the culture of a system/ organisation can be understood through the opportunities it does/ doesn't create for its members
<b>Policy coherence</b>	Stakeholders consider their involvement to be integral to the object, organisation, strategy and have autonomy and agency to implement, develop and refine it
<b>Practical and action-orientated</b>	Professional Learning Communities that reflect an embedded approach to professional collaboration and sharing of expertise and knowledge
<b>Professional Learning, workforce development &amp; professional standards</b>	Recognition of the need to align and connect where possible the National Mission, Curriculum reform, National Approach to Professional Learning and SLO policies
<b>Quality teaching &amp; learning &amp; pedagogy</b>	Identification of the applicability of the interventions, the SLO policy and changes that have occurred as a result of being involved in the project/ engaging with the SLO model. Particular references to the 14 Parameters in light of how they have been adopted/ adapted by teachers, leaders and system leaders to improve practice as part of the change process. Practicality of the project intervention AND the SLO dimensions highlighted as a positive factor for igniting, supporting and sustaining change for system and school improvement
	References to new, changed or improved practices relating to professional learning within and between schools by teachers and leaders and other stakeholders. Linked also to knowledge exchange and sharing practices, school and system improvement. Mentions of the Professional Standards policy as having been affected by change as a result of the intervention/ SLO policy
	Classroom practices, routines, pedagogy and curriculum changes mentioned in relation to practice and thinking changes that come about as a result of the intervention. Also relates to the impact of professional

PhD LCL PROJECT CODE BOOK (as of 26<sup>th</sup> April 2021) ZE

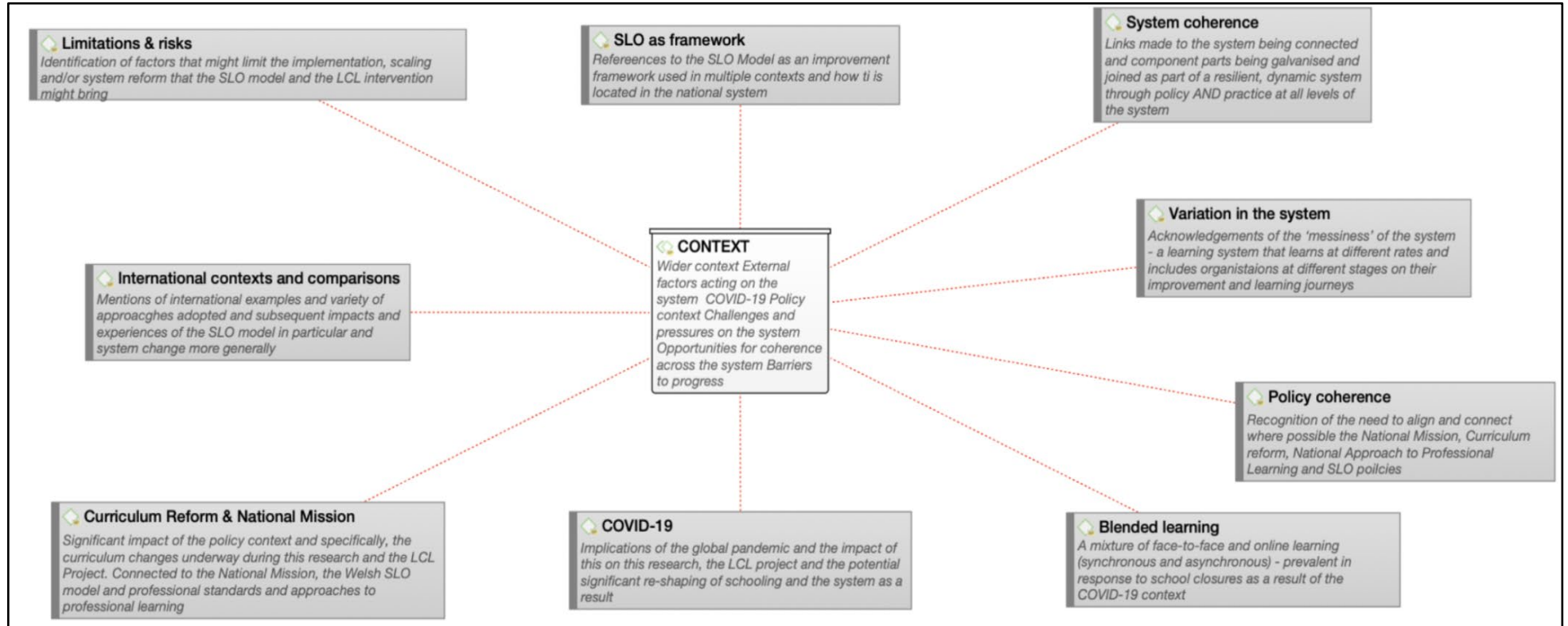
<b>Readiness for change</b>	development and learning that brings about change for teachers and leaders and the learning experiences for students
<b>Reflective Practice</b>	References to organisational (school or system) preparations, planning and strategic thinking in response to changes - particularly policy initiatives and educational reform. May be related to capacity, time, and CONTEXT e.g. external pressures experienced in the system
<b>relational agency</b>	Deliberate opportunities created and sustained for system members to reflect on practice at individual and organisational level
<b>relational expertise</b>	According to Edwards' definition where relational agency is viewed as shedding light on problems or 'ruptures' in the system in order to create new knowledge and approaches to address these - integral to improvement-intervention work (p.304 - Working Relationally Across Boundaries, Edwards, A., 2017)
<b>Relationships</b>	According to Edwards' definition & how being a professional involves the ability to negotiate in order to 'lead to a more richly informed practice' (p.300 - Working Relationally Across Boundaries, Edwards, A., 2017)
<b>relevance</b>	High levels of trust promote and nurture professional relationships support collaboration, knowledge sharing and system-wide connections - LINKS to RELATIONAL EXPERTISE, BUILDING OF COMMON KNOWLEDGE and CULTURE
<b>resilience</b>	Explicit references that overtly link current local context, situation and setting to policy and intervention project aims and approaches
<b>School Improvement</b>	References to system, school, organisational, leader & practitioner resilience when faced with change, uncertainty and complexity
<b>Self-improving system</b>	Specific mentioning of school improvement changes that take place or are intended and/ or desired as a result of the SLO/ project intervention
<b>Shared language</b>	Reflection of David Hargreaves' work characterising steps to create a sustainable self-reflective and on-going systemic improvement culture
<b>Shared vision</b>	An indicator of change is where the language and/ or terminology of an organisation has changed - suggesting that the intervention, new approach has been adopted as part of the daily practice of the organisation/ system/ team - language changes seen as indicative of practice and mindset/ attitudes/ thinking. LINKED to changes in THINKING
<b>Sharing practice</b>	A clearly stated purpose to why everything is done the way it is - a shared and common rationale that galvanises the system and everybody working collectively to realise its aims
<b>SLO as framework</b>	Practitioners and leaders share knowledge and expertise across organisations and the wider system LINKS to: CULTURE - self-improving system, shared vision and LEADERSHIP - systems thinking, middle tier leadership, communication
	References to the Welsh SLO Model as an improvement framework & self-evaluation tool used in multiple contexts and how it is located in the national system

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4.10 Early phase working visualisations (a) - (g) of main codes and sub-codes

(a) Conceptual Framework – MAIN CODE: **CONTEXT** – sub-codes with explanations (inductive analysis)

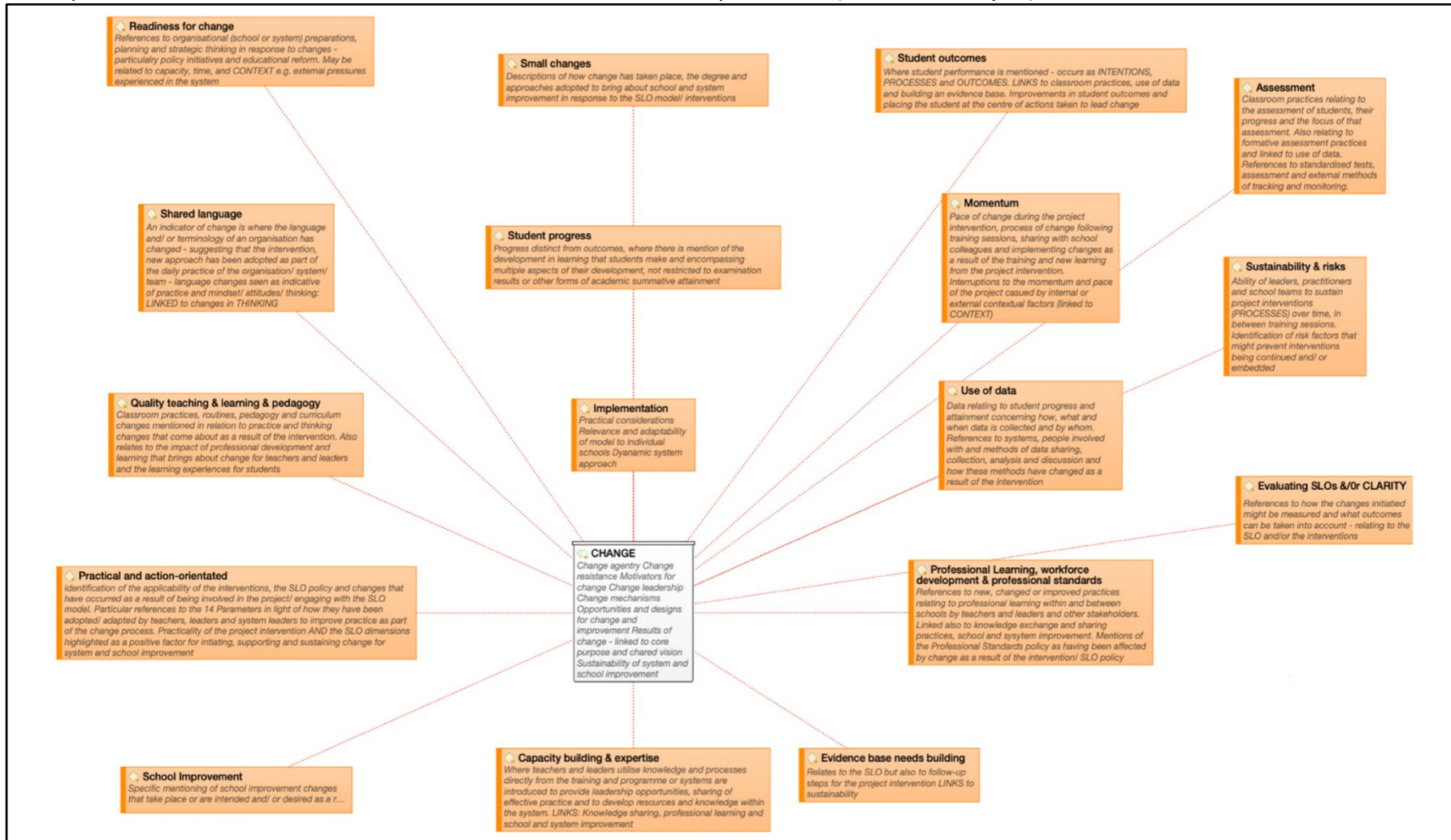


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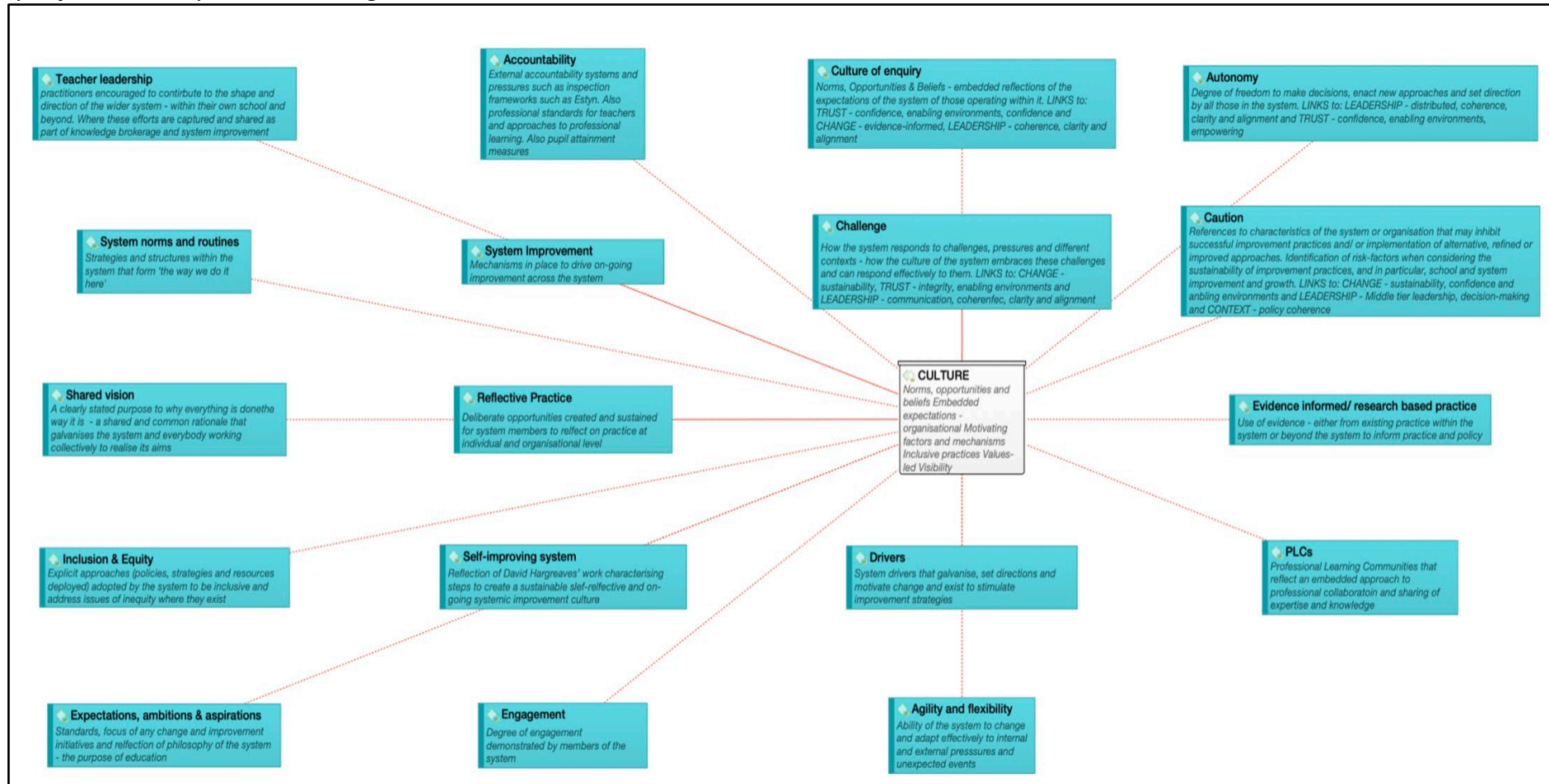
(b) Conceptual Framework – MAIN CODE: **CHANGE** – sub-codes with explanations (inductive analysis)



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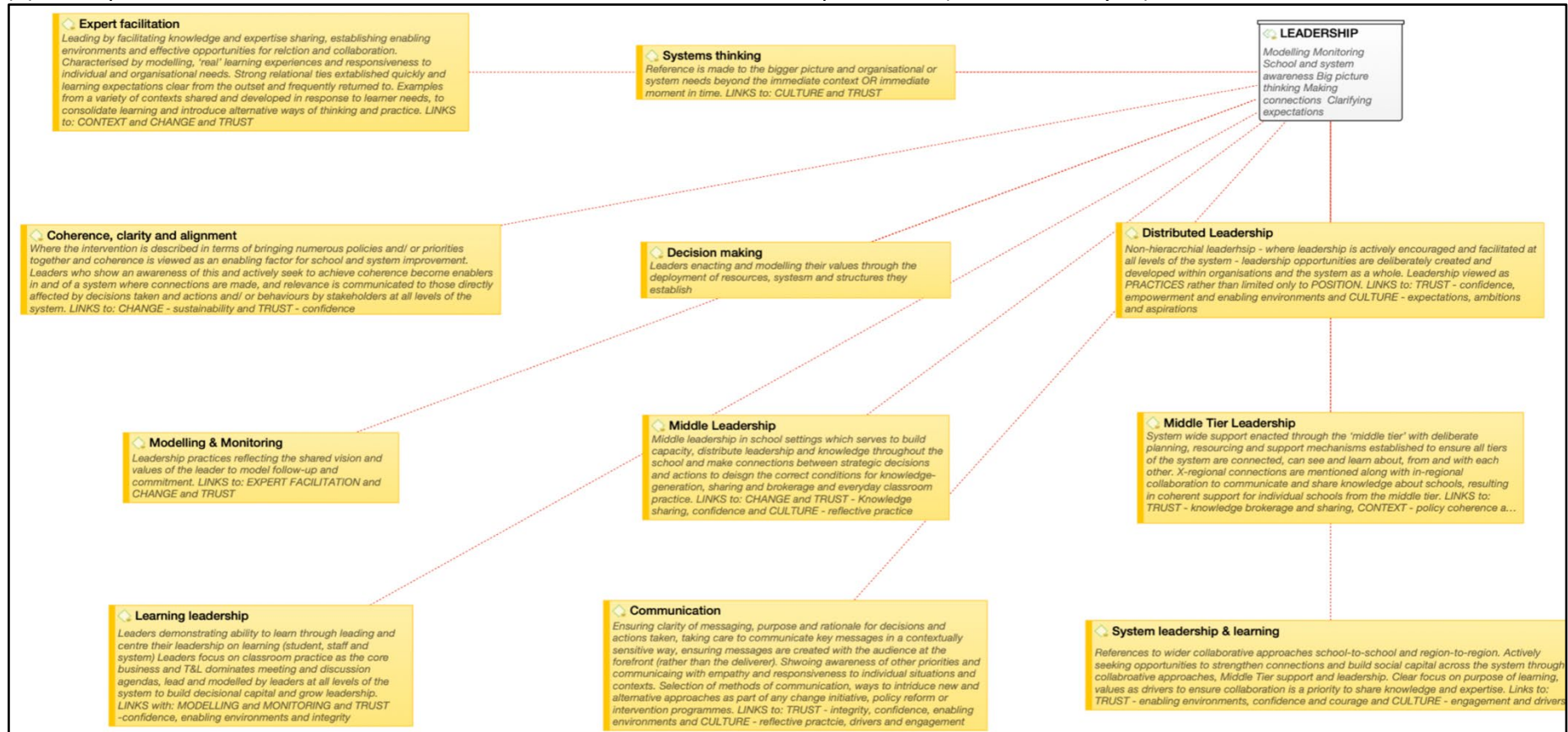
(c) Conceptual Framework – MAIN CODE: **CULTURE** – sub-codes with explanations (inductive analysis) The LCL Project was designed with specific attention paid to nurturing relational trust.



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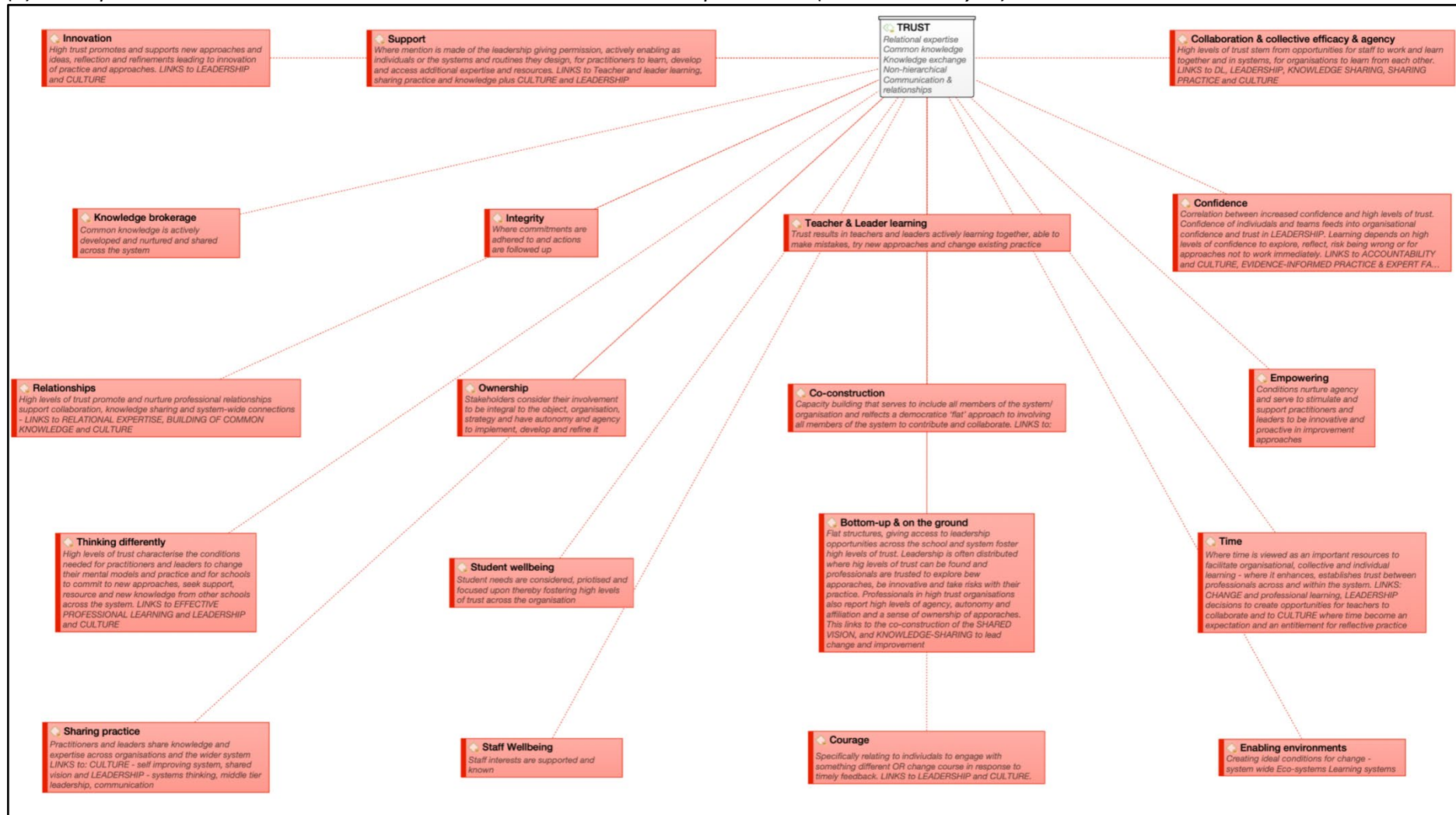
(d) Conceptual Framework – MAIN CODE: **LEADERSHIP** – sub-codes with explanations (inductive analysis)



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(e) Conceptual Framework – MAIN CODE: **TRUST** – sub-codes with explanations (inductive analysis)

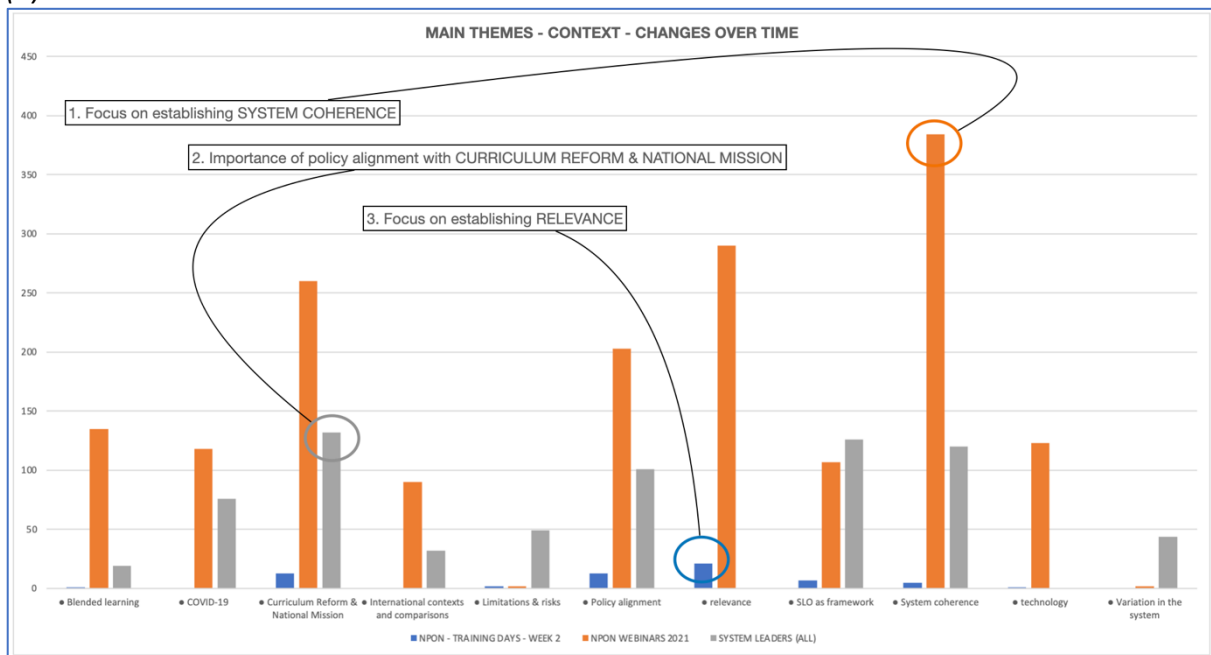


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# An exploration of “Schools as Learning Organisations” as a catalyst for school and system change

## 4.11 Early conceptual visualisations as data analysis

(a)



(b)





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*(e) In-person training sessions*

*Frequent opportunities were designed into the two days and facilitated by RLs and CAs for schools to work and share practice and thinking together through shared table discussions from within and beyond their region and immediate local area to model and increase collaboration at a system level (school-to-school and cross region)*

*(f) In-person training sessions*

*Leaders asked to reflect on how to give time to their teachers to share and develop their thinking and practice together, linking back to their own schools and context*

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*5.4 Non Participant Observation Notes (NPON) Rehearsal and Live Streamed Webinars*

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*(a) NPON - Live Webinar 2*

*Fully explained example shared by RL\* – different use of data walls – using a range of data in October 2020 – meetings now lead by pastoral leads every Monday – more than just the teachers who teaches the students*

*\*RL – Regional Lead*

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*(b) NPON - Live Webinar 5*

*Team consensus = examples shared by RL during session from LCL schools – inspiring for RL team as a whole – keen to gather more examples ahead of next week’s session – agreement that this makes such a difference to see the examples from schools in Wales during these sessions*

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*5.5 Immersive field notes - Week 2 - In-person training sessions*

*(a) In-person training sessions*

*Explanations and experiences of the LWT\* training on the first day of the training week shared by the RLs and CAs with school teams on their tables, all of whom attended the LWT Training day at the beginning of the week: providing first-hand experience and discussion around the LWT protocols, the observations of the ‘Third Teacher’, specificity of the 5 Questions and the experiences of pulling this all together into a series of LWT in one school*

*\*LWT – ‘Learning walks & Talks’ – practical tool used to support lesson drop-ins and professional learning conversations)*

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*(b) In-person training sessions*

*...the gap tasks undertaken between the first week of training in June 2019 and this second week - were shared and discussed. These provided further opportunities for connections to be made across the training weeks and between schools (at system level), enhanced professional links (at school SLT level) and galvanised groups (linked to RLs and CAs) as they worked together throughout the training days*

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*(c) In-person training sessions*

*RL and CA supported discussions and around writing examples – table task = to unpick the learning intentions and co-construct their own LI from the writing with clear guidance (modelled as SC and LI) with the groups for the structure and purpose of the task*

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*(d) In-person training sessions*

**Knowledge Mobilisation** – All training activities and processes modelled with explicit intentions and process so that they can be used back in schools

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*(e) In-person training sessions*

*School Leadership teams, RLs and CAs were encouraged to consider, discuss together and to specify where the 14Ps approach aligns to their own current policy and practice and make links with current policy in Wales and the improvement priorities in their own schools  
Regional Leads and Challenge Advisers were asked to undertake the role of facilitator during the two days with their schools to enhance collaboration, deepen relationships and foster rich conversations that could continue beyond the training days, thereby attending to the sustainability of the collaborative nature of this approach  
All sessions involved explicit modelling of and attention to classroom practice that could be used by school leadership teams in their own staff PL and meetings back in school and at regional meetings*

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## 5.6 Detailed excerpt from NPON Live Streamed Webinar

**External Facilitator** - Shares different forms of evidence collection, assessment tools and assessment methodologies – cover different purposes and are used in different ways

**Key message:** whatever we use, we need to be clear about the purpose of the assessments  
Invitation to **System Leaders** to input – referred to as “My colleagues”

**System Leader (T2)** - Reflections = the idea of planning with the end in mind – makes a link to Clarity and the critical success of the CfW and questions for teachers who are working on this now

**External Facilitator** - These questions can sound simple but are complex

**System Leader (T2)** - In light of the pandemic – keeping best practices when we move back to F2F teaching. Need to be creative in how to provide feedback – new assessment processes developed during COVID and how to maintain these

Digital tech – using Google Forms for closed questions – students enjoying getting INSTANT feedback during remote learning – this is definitely something to take back to F2F teaching

**External Facilitator** - Absolutely – instruction practice in digital learning to hang on to

**System Leader (T2)** - //...// – what we’ve learnt about developing resilience in learning, with grit and independence – using research to reinforce the importance of struggle in learning and introducing metacognition and teaching students strategies to lead and articulate their learning to become more ‘assessment capable learners’





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(b) Alignment between 14Ps and National Professional Standards



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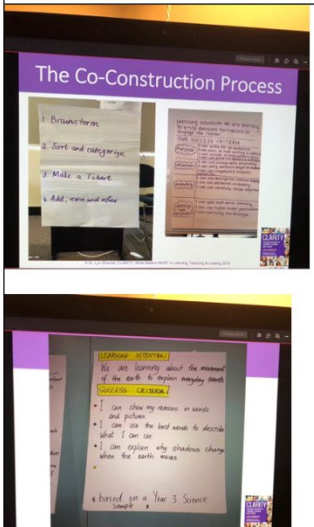
5.8 NPON excerpt – Operating norms, routines, project-specific language

Slides (Public view)	Key content	Initial coding
<p><b>Operating Norms: Critical to OUR Success</b></p> <ul style="list-style-type: none"> <li>Everyone's voice is important. We listen respectfully.</li> <li>Being respectful in our engagement builds strong working relationships that lead to empowerment.</li> <li>We reflect on our work as we learn with, and, from each other.</li> <li>In collaborating, we empower our own learning and the learning of our colleagues.</li> <li>We build "learning capacity" together.</li> <li>Collaborating authentically builds confidence and success.</li> </ul>	<p>Operating norms for all sessions – modelling PL leadership Co-constructed with 'MY TEAM' Always do this ahead of PL sessions</p>	<p>Operating norms Co-constructed Collegiate Distributed leadership Modelling System leadership &amp; learning Professional learning Team-ness</p>
<p><b>Today's Learning Intentions</b></p> <p>We are learning to ...</p> <ul style="list-style-type: none"> <li>Plan actions from data collected during Learning Walks and Talks so we can teach others and Walk and Talk with colleagues;</li> <li>Walk to look for/consolidate the "expected practices";</li> <li>Ask students 5 questions and include "WHY";</li> <li>Take "WILT" out of our vocabulary;</li> <li>Write a "Commitment to Action" as an individual and as a team member regarding the work that we've done together.</li> </ul>	<p>LIs Should be visible in classrooms AND in PL Sessions LWTS - All about looking collectively at data Opportunity for teachers and leaders to talk with each other Links made to Welsh context "Walking purposefully with a focus" Links across webinar sessions to far – DWs with AWF and LWTS Modelling of PL sessions – holding to account for all learning sessions to be clear about the 'why' of the session and coverage</p>	<p>Consistency Professional learning Processes Data use LWTS Context Connections across the work – coherence Modelling Accountability Rationale Shared responsibility</p>
<p><b>Success Criteria</b></p> <p>I can:</p> <ul style="list-style-type: none"> <li>learn as an ego-free leader – titles are left at the door</li> <li>put my perceptions of improvement on the table and reach consensus about the way forward</li> <li>model with all staff focused conversations that highlight the core work;</li> <li>be clear as a system leader what alignment (structures) and coherence (common language) are necessary to articulate in order to lead the system;</li> <li>know what I don't know and find out where I will learn it;</li> <li>model and monitor the expected, effective practices and keep the energy going to sustain them</li> </ul>	<p>Again – SC should be visible in classrooms AND in PL sessions Use of "I can" statements One takeaway from today – LWTS are <u>NON-EVALUATIVE</u> Modelling leadership of PL session – SC needed for every learning session (teachers &amp; students)</p>	<p>Consistent approach Expert facilitation Capacity building Modelling Success criteria 14Ps Practical and actionable Context Co-design Developmental Relevance Middle tier leadership Distributed leadership System leadership Instructional leadership Leadership LWT Quality Teaching &amp; Learning Alignment</p>

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5.9 - NPON excerpt – Practical tools in webinar sessions – e.g. the co-construction process for success criteria

	<p>Example of working with SC and co-constructing SC with students          Invitation to RL for input on SC</p>	<p>Co-construction          SC          Distributed leadership          Co-delivery          Collaboration          Capacity building          Context          Relevance          System leadership          Implementation</p>
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5.10 NPON excerpt from the final, ‘Culminating Event’ Live Streamed Webinar

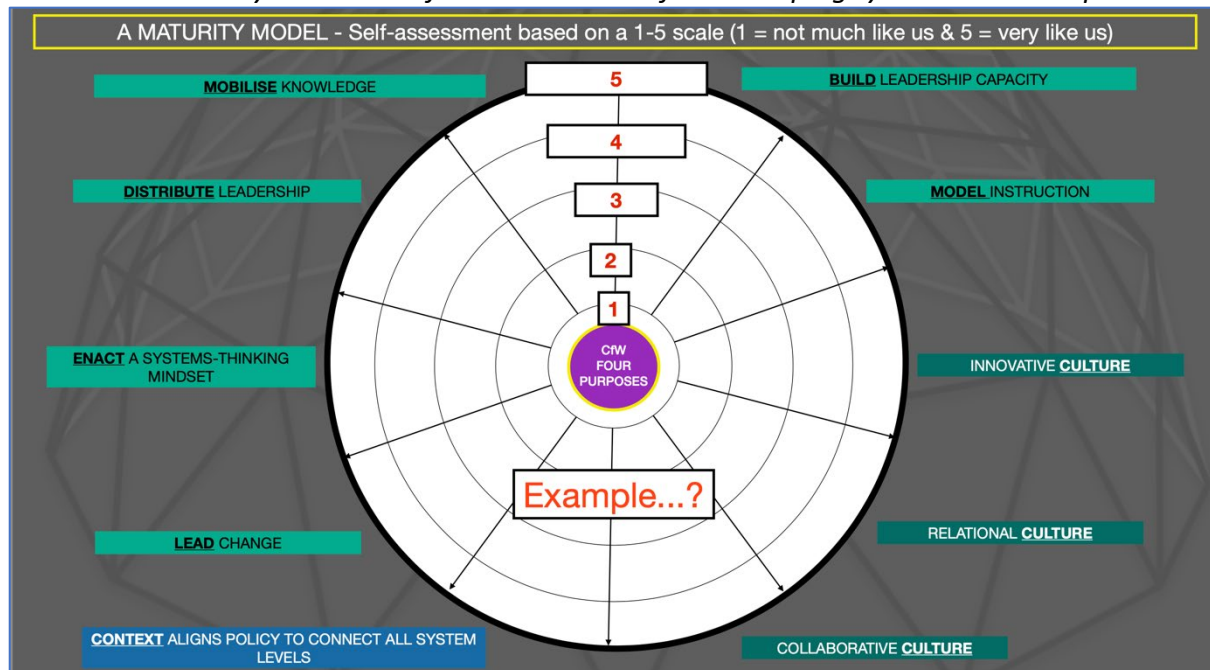
<p>Privilege attend – huge privilege to work with [redacted]          System-wide – school level, consortia level and government level, university level – touched all bases in this project          Role of research team and remit          Vote of thanks          Five things the project has brought to Wales:</p> <ul style="list-style-type: none"> <li>• Centrality of pedagogical change and instructional leadership</li> </ul> <p>Practical approaches and build on existing work in schools</p> <ul style="list-style-type: none"> <li>• Capacity building – webinars – capacity building has been very positive dimension COVID-19 not prevented this</li> <li>• Power of Collective agency and collaboration – big part of Welsh education</li> <li>• Consistency – kept returning to the 14Ps – link directly to SLOs – lots of synergy and policy context and new curriculum</li> <li>• Clarity – model of engagement and model of improvement and model of pedagogical change that has uplifted parts of the system. Power of engagement &amp; involvement around learning and teaching practices – schools and school systems</li> </ul> <p>Challenging times to run this project          Not the end          Celebration of all that’s been achieved – new work, new development, new strands, new beginnings around the work.</p>
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## Appendix 6

### Chapter 6 – Conclusions & implications

#### 6.1 DRAFT maturity model & self-assessment tool for developing systems leadership



#### 6.2 – Suggested considerations for complex, system-wide educational research design

- National Lockdowns and school closures – what alternatives are available for data collection if the daily operating procedures of schools, society and the wider educational system are significantly disrupted?
- Vulnerable members of society and schools – what additional measures need to be taken to ensure equity and inclusion in the research design if unforeseen circumstances (like those already listed) are encountered?
- Mental wellbeing and family illness and bereavement - what practical and ethical considerations to the health and wellbeing of the researchers and research participants must be made to respond sensitively to any distress caused by disruption and/ or external contextual factors affecting the typical daily routines and operations of wider society and specifically, schooling?
- Social distancing – what precautions do researchers need to take to keep themselves and their research participants safe and compliant with stringent interim health and safety regulations and guidance?
- Restricted travel – what technological alternatives to in-person data collection are available to facilitate remote data collection if required?
- Environmental considerations – what impacts could be reduced by designing the logistics of the research to be carbon-neutral?
- Home-schooling – to what extent is the research dependent on learning being physically located on the school site?

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- Social, economic, and emotional trauma and unexpected health issues – how does the research design take account of consistency, capability, capacities, and continuity to sustain the progress of the research when encountering any unexpected wide-scale contextual factors that disrupt the wider educational system?

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