

**Navigating the future:
Building adaptive capacity in international schools**

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Doctor of Education

I, Simon Camby, confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis.

Signed:

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(Exclusive of appendices, list of references and glossary)

Abstract

Navigating the future: Building adaptive capacity in international schools

Given the pace and complexity of change for schools globally, this study investigates how leaders of international schools are navigating the future for the organisations they lead. The research draws on two pieces of existing literature, firstly that of Adaptive Leadership Theory which has mainly evolved outside the education sector and secondly literature related to the School as a Learning Organisation (SLO) which has not specifically been defined within the international school context. This study explores how relevant and applicable these two concepts are for international schools and investigates what the relationship is between the two concepts.

This study is qualitative, using eleven semi-structured interviews with educational leaders working in the international school sector. The participants within this study defined, with a strong degree of consistency, their view of schools as adaptive organisations and of adaptive leadership, identifying three overarching themes: openness, strong sense of identity and empowerment. Participants also defined a set of adaptive leadership behaviours which they viewed as essential for growing adaptive capacity in international school leaders. From the data analysed within this study, the SLO concept is relevant and applicable to an international school context.

This research contributes to a gap in the knowledge base relating to adaptivity in the education context, specifically in relation to international schools. Detail is provided on the characteristics of an adaptive international school and adaptive international school leadership. The research provides confidence for the applicability of the SLO model in international schools and defines the interrelationship between this and the concept of adaptivity.

Key words: adaptive leadership, learning organisation, school as a learning organisation, international schools.

[275 words]

Impact statement

UCL requires that an Impact Statement be included in this thesis. The aim of this statement is to demonstrate how this thesis might offer benefit, both within and beyond academia. For this purpose, I summarise the final sections of the final chapter where the focus is on the relevance and significance of the research and potential dissemination.

Professional impact

Initially, my proposal for this research was developed from my own interest in the way that educational leaders in the international school sector were thinking about navigating the future given the many documented external influences facing schools. I was keen to use the research structure of this doctorate to explore this in a rigorous manner.

As a result of this research several actions are evident which will be built into thinking and structural processes of the institution in which I work and are of relevance to international schools. These include:

1. Utilising the School as a Learning Organisation (SLO) model with international school leaders and governors, this includes exploring how the model could be incorporated into global accreditation frameworks
2. Developing a model for adaptive leadership for use in professional learning with existing and emerging international school leaders

Potential academic contribution

I consider that this study contributes to knowledge in the following ways:

- Data from this study demonstrates that the concept of adaptivity has relevance to international schools. There is no existing research on adaptivity in the international school context so this research supports an identified gap in literature.
- Data from this study provides for the development of a model of adaptivity in international schools with the following component parts:
 - Characteristics of adaptive international schools
 - Characteristics of adaptive international school leadership

Underpinned by:

- Enabling leadership behaviours
- Enabling contexts for developing leadership
- Data from this study asserts confidence that the SLO model by Kools and Stoll (2016) is relevant for use in the international school context
- Data from this study provides the basis for explaining the interrelationship between the concepts of adaptivity and the School as a Learning Organisation

Dissemination

The findings of this research will be shared with the organisation where data collection took place, through a presentation and a summary report. Findings will also be disseminated in the following ways in the international school sector:

- In conversations with school leaders, leaders of school groups, and school proprietors when considering the future of their school or school group
- In professional learning programmes
- As the basis for blogs and thought leadership pieces for use within the international school sector

[430 words]

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Abbreviations

Throughout this thesis the following abbreviations are used:

LO learning organisation

OL organisational learning

SLO schools as learning organisations

Where used in titles, quotations and captions the terms are used in full and not abbreviated.

A glossary defining key terms used within this thesis is included and can be found at page 168.

Candidate statement

This section provides a summary and synthesis of the learning experience over the entire EdD programme. I summarise the elements of the programme in the table below:

EdD Module	Title
Foundations of Professionalism (FoP)	Business vs Education: The challenges of professionalising a commercial schools group
Methods of Enquiry 1 (MOE1)	Headteacher Induction: An evaluation of effectiveness within an independent school group in the UK
Methods of Enquiry 2 (MOE2)	What can be learned from reflection on critical incidents in early headship?
Institution Focused Study (IFS)	Culture: Exploring the view of international school principals
Thesis	Navigating the future: Building adaptive capacity in international schools

There is a quotation attributed to C.S. Lewis, though the actual source is unknown, which resonates with my doctoral journey.

Isn't it funny that day by day nothing changes, but when you look back, everything is different. (source unknown)

My rationale for citing this is that my experience of learning has been one of unfolding, with the cumulative learning experience being greater than the sum of the parts. There have been times along the journey when nothing made sense and I questioned the structure of the programme. With hindsight, I can now see how each part has contributed to the whole. At the outset, I expected my core learning to be in relation to subject knowledge. In fact, this has not been entirely true which I will explain below. I have structured this statement into three parts:

1. Unexpected learning
2. Phases of learning
3. Applying the work of others to my doctoral journey

Unexpected learning

Whilst there have been huge gains in my subject-matter knowledge base, the unexpected learning has been to two interrelated areas:

- Methodology
- Reflexivity and professional reflection

Methodology:

Prior to undertaking this programme, I had negotiated an academic journey with low engagement in relation to research methods. I saw them as something 'out there' and as a distraction to the 'more interesting' subject matter. Coming to understand more about methodology and research methods has had profound impact. Consequently, I now read differently and understand people differently. This alone has been my most surprising learning. Understanding more about ontology and epistemology has allowed me a greater insight into 'what lies beneath the surface', ultimately leading to a greater sense of what individuals view as their 'reliable truth'. In interacting, this has enabled me to adopt a different and more nuanced understanding of the position that others are working from. Most of all, this has given me a greater appreciation of why there may be conflict within an organisation; often originating from a different methodological stance, albeit often unknown or unrecognised. This type of learning is supported by the work of Wenger who explores the crossover from professional identity to personal identity, noting that boundaries are transcended. Wenger notes, 'the experience of identity in practice is a way of being in the world' (1998, p.151). This defines my own experience on this programme.

Aside from looking out and understanding more about how I read and how I interpret people around me; I have also looked inwards. Through this process

I have come to understand more about my own ontology and epistemology. This has been challenging and beneficial learning, beginning most powerfully through the Methods of Enquiry modules. I realise that prior to this, I had a somewhat 'monochrome' view of research, aligned largely with a positivist paradigm. Starting with MOE1, through MOE2 and the IFS, and into the thesis stage, I have grown in confidence in understanding my own positionality as a novice researcher, finding a methodology that is true to my own epistemological outlook. MOE2 was the first time in testing this alongside using basic methods, learning how to record, transcribe, and analyse data - within an insider research framework. With just two participants, I realised the value I attached to analysing narrative accounts or 'thick descriptions' (Geertz, 1973). This learning was extended in the IFS when I was able to interview a group of six participants and used Interpretive Phenomenological Analysis (IPA) for data analysis. This was a key learning moment as it enabled me to discern that I value a constructivist stance. From this learning, the methodological journey into my thesis was relatively straight forward and built on this incremental learning. Interviewing eleven participants and using Reflexive Thematic Analysis to analyse data felt a natural methodological step to honour the voices of the participants.

Reflexivity:

Within Chapter Five of the thesis, I outline the approach taken to reflexivity within the thesis stage. I believe that I have adopted a reflexive stance throughout - often 'bending back' on my own awareness (McLeod, 2001). This bending back began at the start of the journey with the FoP module. This module opened an academic space with a focus on the concept of professionalism, allowing for reflection, both on one's own view and on one's professional context. This was the first time in any academic writing that I had to position myself and writing in the first-person singular was not initially comfortable. The combination of the content from the FoP module alongside reflection, resulted in a key learning point. Through engagement with the literature, I was able to understand more about the challenges I was facing as the leader of a commercial global schools group. Drawing on the work of Hargreaves and Fullan (2012) defining business and professional capital, I

was able to apply theoretical models to my own context. This learning was significant and instrumental in supporting my work to lead organisational change across 80 schools in ten countries.

As the programme has evolved, my reflexivity has been more in relation to methodological understanding as described above. This has especially been the case in the IFS and thesis stages. Given the alignment with a qualitative paradigm, I have repeatedly gone back and forth, analysing, and re-analysing data with the view that I must 'hear' the voices of the participants to produce credible and trustworthy research.

Phases of learning

Alongside this personal and professional growth has been the growth in subject content knowledge. It could be suggested that on first sight, the early parts of my doctorate are disconnected. However, I would argue that there is a clear thread throughout. I can identify three phases of learning which I depict in the table below.

Phase of learning	FoP	MOE1	MOE2	IFS	Thesis
1. Grounding myself	<input checked="" type="checkbox"/>				
2. Methodology		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3. Exploring subject content leading to thesis				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

As cited above, the FoP module allowed me to ground myself as an educator and professional. This learning informed the entire journey and has been influential in each subsequent phase. The learning during MOE1 and MOE2 began in earnest my growth as a novice researcher, understanding more about the methodological grounding to research. This learning has evolved and continues to deepen. The subject matter content in FoP, MOE1 and MOE2 allowed me to 'test out' areas for further exploration. The focus of the IFS exploring culture in international schools through the lens of international school principals laid the groundwork for my thesis enquiry. For me, the conclusions of the thesis are only the beginning as they raise many questions that I wish to focus on and explore.

Applying the work of others to my doctoral journey

In reflecting on my own doctoral learning, I have used the work of others to make sense of the experience. The quotation below resonates with the experience I have described in this section.

Whether situated as an insider or in-betweener, encountering new ideas, and embracing a willingness to accept one's identity as being fluid through engagement in a professional doctorate programme involves risk-taking; the outcomes of ongoing reflexive interrogation may be uncomfortable, personally, professionally, culturally, and methodologically. The impact may be difficult to predict or control. (Burnard et al., 2018, p.41)

From this extract I identify with the notion of a fluid identity during the doctoral experience, which has impacted me both professionally and personally. This fluidity of being open to questioning and change has been central to this experience. Of course, I was not researching something entirely external to me, I was also part of the context of enquiry. Taylor (2007) uses the term 'balancing on the cusp' and this resonates with my emerging identity as an 'in-betweener', neither fully inside nor fully outside the organisation. Academic literature often makes use the term 'intersection' and the process of undertaking a professional doctorate has felt intersectional as an activity, a point exemplified below:

Learning to become a researching professional places the learner at the intersection of their own professional practice, the organisational learning context in which they find themselves, their own professional development, and the professional change process. (Burnard et al., 2018, p.43)

This notion of fluidity and change now makes sense, but only with the benefit of hindsight. I can see ways in which I have been influenced by the doctoral experience. In turn, this has influenced my professional work within the context being studied. In other words there has been a high degree of co-influence, a view supported by Beijaard et al (2004). Through this ongoing interplay between the self, the researching self, and the professional context, I assert that one is experiencing 'engaged scholarship' (Boyer, 1990). In this

work, Boyer describes the connection of academic subject matter to address pressing problems that will impact on school communities.

Through ongoing reflection and reading, I have considered how the work of a professional doctorate, both during and after completion, allows one to impact on the work and lives of others. One of the ways that I have come to understand this is through reflection on the concept of 'knowledge animation' (Stoll, 2018). Building on much work aligned with organisational learning, Stoll posits that:

Teachers and school leaders make learning connections as they engage with research findings and then they create their own useful knowledge that will help enhance their practice. (Stoll, 2018)

This has resonance for me because whilst I wish to engage in an enquiry that is rigorous it must also be useful and relevant. A key aim for my engagement in this programme is to support others to make a difference to the learning experience of the students in their care. I believe that I have engaged in knowledge animation in working through this research and will, in turn, engage with others to support them with a related process of exploration and learning. This fits neatly in a methodological manner given that my research aims to reach conclusions which are transferrable but not generalisable; allowing school leaders to contextualise and create their own knowledge to support them in dealing with their context-specific challenges and opportunities.

End note

The UCL Institute of Education EdD Handbook 2020-21 states:

The Doctor in Education (EdD) aims, through a combination of taught courses and supervised personal research, to develop research skills and knowledge, which together with reflection on professional experience enable participants to interpret, evaluate, conduct, and disseminate research that is relevant to, and has potential impact on, their professional development and workplace practice, as well as

meeting the requirements of rigour and originality expected of a doctorate. (UCL, 2020)

I conclude that the doctorate programme and associated learning has enabled me to fulfil the aims outlined above and I demonstrate that I have engaged fully with the programme to produce a piece of work which has impacted on my own professional development and workplace practice. The learning has been transformational and will impact positively on how I continue to engage with my own learning and support the learning of colleagues in the organisation in which I lead.

Transformative learning is not so much what happens to people but how they interpret and explain what happens to them that determines their actions, their hopes, their contentment and emotional wellbeing, and their performance. (Mezirow, 1990, p.xiii)

[1,978 words]

Chapter 1 - Introduction

Purpose and context of this research

The purpose of this research is to:

- explore how international educational leaders think about organisation and leadership when considering the future of international schools with reference to adaptive leadership; and
- explore whether the Schools as a Learning Organisation concept has relevance within an international school context

There are repeated references in literature (cited in Chapter Two) to adaptivity and adaptive capacity being enablers to manage complexity and continuous change. This study explores this through the lens of international schools. As a working definition, an adaptive organisation is defined as one that can adjust to meet the complexities of a changing operating environment (Uhl-Bien & Arena, 2018).

Structure of thesis

Following this introductory chapter, the literature review in Chapter Two will explore and critique a literature base linked to System Theory, Complexity Theory, Adaptive Leadership Theory, learning organisations (LOs) and schools as learning organisations (SLOs). The reason for drawing on the literature linked to SLOs is because one influential contribution to the field explicitly asserts that schools that are LOs possess an adaptive capacity to manage their future (Kools & Stoll, 2016). This doctoral enquiry is qualitative in nature - the research design, methodology and methods are explored in Chapter Three. Chapter Four is used to 'tell the story' of the data, with Chapter Five presenting a discussion of the findings from this research relating to the literature review and methodology, which leads to the conclusions and the contribution made by this study.

Genesis of this research

The genesis of this research was in the conversations I had in the period 2016-2020 with educational leaders working in an international context focused on navigating the future of their school. The organisation in which this research is based (described below) has proactively worked on becoming increasingly evidence informed. For this research, evidence is defined as “knowledge generated by external research that is transparent and rigorous” (Collins & Coleman, 2017, p.18). Within the organisation, a distinction is made between ‘evidence for accountability’ versus ‘evidence for improvement’ (ibid). A summary of this distinction can be found in Appendix 1. The rationale for this research and thesis is rooted in ‘evidence for improvement’.

In the period 2016-2020, developmental conversations within the organisation have drawn on a range of literature in relation to the proposed challenges facing the education sector, often linked with ‘The Fourth Industrial Revolution’ (Schwab, 2016). This so-called revolution includes reference to macro-changes in society and future employment, with attendant challenges brought to bear on school systems. Within the literature there are scholars and commentators that question whether the current system of schooling is fit for purpose, a summary of which is included later in this chapter. As a result of my conversations there was a fascination in enquiring in more detail about how educational leaders were thinking about the future of their schools and of leadership. At the start of this enquiry, work focused on the SLO concept. Following further research, however, this broadened to include an exploration of adaptivity in the international school sector. Within the literature explored there is frequent mention that schools deemed to be LOs are ‘adaptive’. This sparked a line of enquiry and provided me with the rationale for this research.

Rationale for this research

There is both an occupational and academic rationale for conducting this research.

Occupational rationale

In my role I am frequently engaged with school leadership teams across all continents, considering the future of education and the future of their schools within this, with a specific focus on how to navigate their horizon. There are a great many global and macro-changes which the education sector is facing. Organisations and entire sectors are being affected by large scale political, social and market disruption (Uhl-Bien & Arena, 2017). Scholars regularly refer to an organisation's need for adaptability to survive, especially in the current knowledge era as opposed to adopting solutions which may have been suitable in an industrial era.

The ability to remain competitive in this changing world depends less on the organisation's capacity to predict the future than on its capacity to adapt to that future as fast as possible. (Eichholz, 2014, p.2)

Consequently, I am interested in this area of study which is directly relevant to my ongoing work with schools. Working in a system leader role with a great many school leaders internationally there is a significant opportunity to utilise the outcomes from this study. No research in this area of enquiry exists in the international school sector, hence I am treating this as a gap in the knowledge base and intrigued to explore how applicable the evidence is from domestic educational contexts.

Academic rationale

Most of the literature on adaptive organisations and adaptive leadership is available from non-education related sectors and I am keen to explore how applicable this is to the international education sector. The literature on SLOs (which makes a link to building capacity for adaptivity) does not originate from within an international school context so I want to explore how relevant it is for this context.

Occupational application

Given that this research has been conducted as part of a taught doctorate there is blend of an academically rigorous approach with a practicality that is rooted within a work context. Gibson asserts:

The aim of social research is, in the end, to produce some knowledge and understanding of the world. For many researchers, there is also the desire to use that knowledge to make the world better somehow, i.e. not just to create some abstract academic understanding, but to do so in a way that have impact outside academia. (Gibson, 2016, p.54)

This is a view supported by Robson and McCarten who define 'real world research' as:

A cornerstone of applied learning, evidence-based policy and informed decision making. It means that important organisational practice and policy decisions are made from an informed perspective, ultimately leading to evidence-based policy and practice, not practice based policy and evidence. (Robson & McCarten, 2015, p.10)

Based on the above, this research is intended to be rigorous and apply value to support the improvement journey of international schools.

Recommendations from this research are included in Chapter Five.

Desired impact from this research

It is anticipated that the outcomes of this study will be used to enable international educational leaders to navigate the strategic intent of the organisations they lead. Strategic intent can be considered as envisioning a leadership position and setting criterion the organisation will use to chart its progress (Hamel & Prahalad, 1994). The intention is not to provide 'definitive answers' but to identify the issues at play and considerations for future planning. Given the methodological underpinning, there is no attempt to generalise from this study, but it is expected that there will be transferable outcomes (explored further in Chapter Three).

Organisational context

The group where data collection took place consists of 80 schools in ten countries, organised into three geographic regions educating approximately 55,000 students. I summarise the geographic location of the schools in the table below.

Asia region 11 schools	Europe region 50 schools	LatAm region 19 schools
Singapore - 2 schools Thailand - 4 schools Vietnam - 3 schools Hong Kong - 1 school India - 1 school	UK - 40 schools Spain - 9 schools Switzerland - 1 school	Chile - 14 schools Brazil - 5 schools

Table 1.1 - Geographic location of schools within the group

A distinctive feature is the diversity within the group with no prescribed education model or school type. The following aspects of diversity are evident when analysing the composition of the schools.

- School size - ranging from 57 to 3,500 students
- Language of instruction - 3 core languages of instruction plus 3 bilingual programmes
- Curricula - 7 different curricula are offered across the group
- Qualifications - 10 terminal qualifications are awarded to students (pre-university)
- External accountability - 9 external accreditation/inspection bodies provide an external view on the schools.

Founded in 2004, the next 10 years focused on growth of the group, with little attention specifically given to organisational culture and development at a group level. In 2015 a new leadership team took responsibility for the group and focused much greater attention on strategy, culture and ways of working. By 2020 the organisation was coming to the end of the strategic planning cycle and beginning to define the strategic intent for the next five years. Defining the strategic intent is a collective endeavour involving a broad group of stakeholders. The findings from this research are intended to help the organisation take an evidence-informed approach to defining its strategic intent.

My role and occupational experience

My role in the organisation described above was as the Group Education Director. In this role I had overall group-wide accountability for the education strategy and outcomes, sitting on the executive team and reporting to the

Chief Executive Officer. At the time of conducting the research, I had been in this role for five years. Prior to this, I had worked in a range of roles within the education sector in the UK and internationally, including teacher, headteacher/principal, inspector, local authority adviser and chief executive of a multi academy trust. My positionality as a researcher will be further explored in Chapter Three.

Situating this research

In addition to exploring one's own and organisational positionality it is necessary to situate the research within a context and time. For this reason, the following paragraphs in this chapter identify three contextual features to guide the reader. These are:

1. International schools - the context in which the research was conducted
2. COVID-19 - an indication of what was happening in the world at the time the data was collected
3. Macro influences - providing an overarching view of the operating environment for international schools

International schools

The term 'international school' is widely used but "is still a relatively new phenomenon in the history of education" and "a relatively ill-defined concept" (Hayden & Thompson, 2016, p.9), often eluding definition (Keller, 2015). This is partly because no one organisation has the right to grant the use of the term 'international' in a school's title. Schools use the term international for a variety of reasons. The most commonly cited reasons link to: the composition of the student population, the curriculum offered and/or the school's mission or ethos (Hayden, 2006). Several authors have sought to pose a definition for 'an international school' but these are contested in the literature. Hayden, who has researched and written on the topic of international schools for a significant period, argues:

Attempts to define international schools are fraught with risks: almost any definition, other than the entirely vague and general, is likely to be

contestable by someone familiar with an international school that does not quite fit the definition. (Hayden, 2006, p.2)

Over the years, contributors have sought to categorise international schools (e.g. Leach, 1969; Sanderson, 1981; Ponisch, 1987), these have been criticised and contested. Instead, Hayden posits that it may be sensible to view 'international school' as an inclusive umbrella term to include different school types, a view adopted in this research. There has been significant growth in international schools since the turn of the century and I summarise this in the table below (Stobie, 2016).

Year 2000	Year 2015
2,584 international schools educating fewer than 1 million students	7,545 international schools educating more than 4 million students

Table 1.2 - Scale of growth in international schools

To provide context for this study, it is relevant to understand what it means to be an international school as the sector has changed. In the table below I summarise the change which has been typical over the past thirty years. This is based on the work of Sylvester (2002), Hayden (2006), Brummitt & Keeling (2013), Sylvester (2015), Hayden & Thompson (2016) and Stobie (2016).

	Traditional international school (Typical in 1990s)	New generation international school (Typical by 2020)
Student population	Expatriate population, predominantly global nomadic students of mobile parents	Increasingly local population
Culture	Unique international culture	Culture embedded in local traditions
Staff	Mainly British, European, North American, and Australasian teachers	Increasing population of local teachers
Pedagogy	International curriculum based on western pedagogy	Curriculum not necessarily grounded on western pedagogy and more sensitive to local context

Table 1.3 - Change in model of 'international school' over 30-year period

The most significant change which has taken place in the international schooling sector is the changing demographic of the student population. In the late 20th century, the ratio of expatriates to host country nationals in international schools was approximately 80:20. By 2016, this had reversed to 20:80, i.e. 80 per cent of students came from aspirant middle classes in countries where international schools are authorised to accept host country nationals (Hayden & Thompson, 2016). This provides evidence of the changing context and associated challenges faced by leaders in international schools.

In recognising this “loosely defined, yet rapidly growing, speciality niche of education” (Keller, 2015, p.900), Keller posits that the notion of duality can be a useful analytical tool for considering the complexity of international schools. The notion of duality, aligns with the methodological basis for this study given that it is based on no single reality; captured by Kaplan and Kaiser (2003) as recognising that for every truth there is an equal and opposing truth.

COVID-19

At the time of collecting and analysing data, schools were managing the impact of the COVID-19 pandemic, resulting in dissonance within the education sector. Whilst this research is not focused on COVID-19, it would be remiss to omit reference to this given the wholly unusual context of operation for all schools during this time. The COVID-19 pandemic led to the near universal closure of schools globally. The OECD reported in April 2020 that schools were closed in 191 countries around the world. This equated to 91 per cent of school age learners being unable to attend their physical school site (OECD, 2020). Each participant in this study was affected in their work context by COVID-19. All the school principals in this study lead schools where students were learning either remotely or through a hybrid model for between 3–9 months in the year of data collection.

Macro influences

It is often cited by cross-disciplinary commentators that we are in a new context, one with a great many more challenges and potential opportunities than society has previously known. One example of such a view is:

Humankind is facing unprecedented revolutions, all our old stories are crumbling, and no new story has so far emerged to replace them. (Harari, 2018, p.301)

This so called 'revolution' has been put into an historical context by positing it as the Fourth Industrial Revolution (Schwab, 2016). The term revolution is used to provide a comparison to other revolutions which have occurred throughout history. The term, invented by Schwab (2016), is used widely in academic and popular literature to identify the current period of history. This is most often linked to the impact of digital technologies on the workforce, economy and society. The World Economic Forum asserts that change is now different from any other time in history (World Economic Forum, 2018), marked by the significant velocity (Schwab, 2016; Servoz, 2016; Universities UK, 2018). Change which is exponential rather than linear and far more all-encompassing in its scope (Universities UK, 2018). There appears broad agreement by a range of authors and organisations outlining some of the specific features and challenges of this period (Schwab, 2016; Universities UK, 2018; World Economic Forum, 2018; World Economic Forum, 2019).

After reviewing a range of sources, the most commonly cited view is that the two main drivers of change appear to be globalisation and the rapid advances in technology (OECD, 2018; Male, 2018; World Economic Forum, 2019). The World Economic Forum (2019) asserts that as a result of these two drivers there is a transformation in what we have known as the norms of civic space and the world of work. Education has played and will continue to play a crucial role in transforming societies (Desjardins, 2015). As a result of fast paced development in digital technologies and globalisation there is far reaching impact on school systems. Schools will need to learn faster than before, with teachers urged to become 'knowledge workers' to deal with the growing pressures and demands in the macro environment (Schleicher, 2012; Fullan

& Quinn, 2016; Benevot, 2017). Authors are questioning whether current models of schooling are fit for purpose (e.g. Sawyer, 2008). Within the organisation where data collection for this study took place, a significant amount of attention and time has been invested into considering the implications from research and commentators in relation to the macro influences impacting schools. A paper outlining the evidence that has been utilised previously with educational leaders in the organisation where data collection took place is included in Appendix 2.

Having considered the purpose for this investigation, my organisational positionality and the three contextual features, the next chapter will explore and critique the literature that forms the evidence base for this enquiry.

Chapter 2 - Literature Review

This chapter considers literature relevant to the context of this study and the research questions which are outlined in Chapter Three. In the diagram below, I outline the shape of the chapter, showing the conceptual content of the literature review and a corresponding rationale for the inclusion to explain the connections between the content.

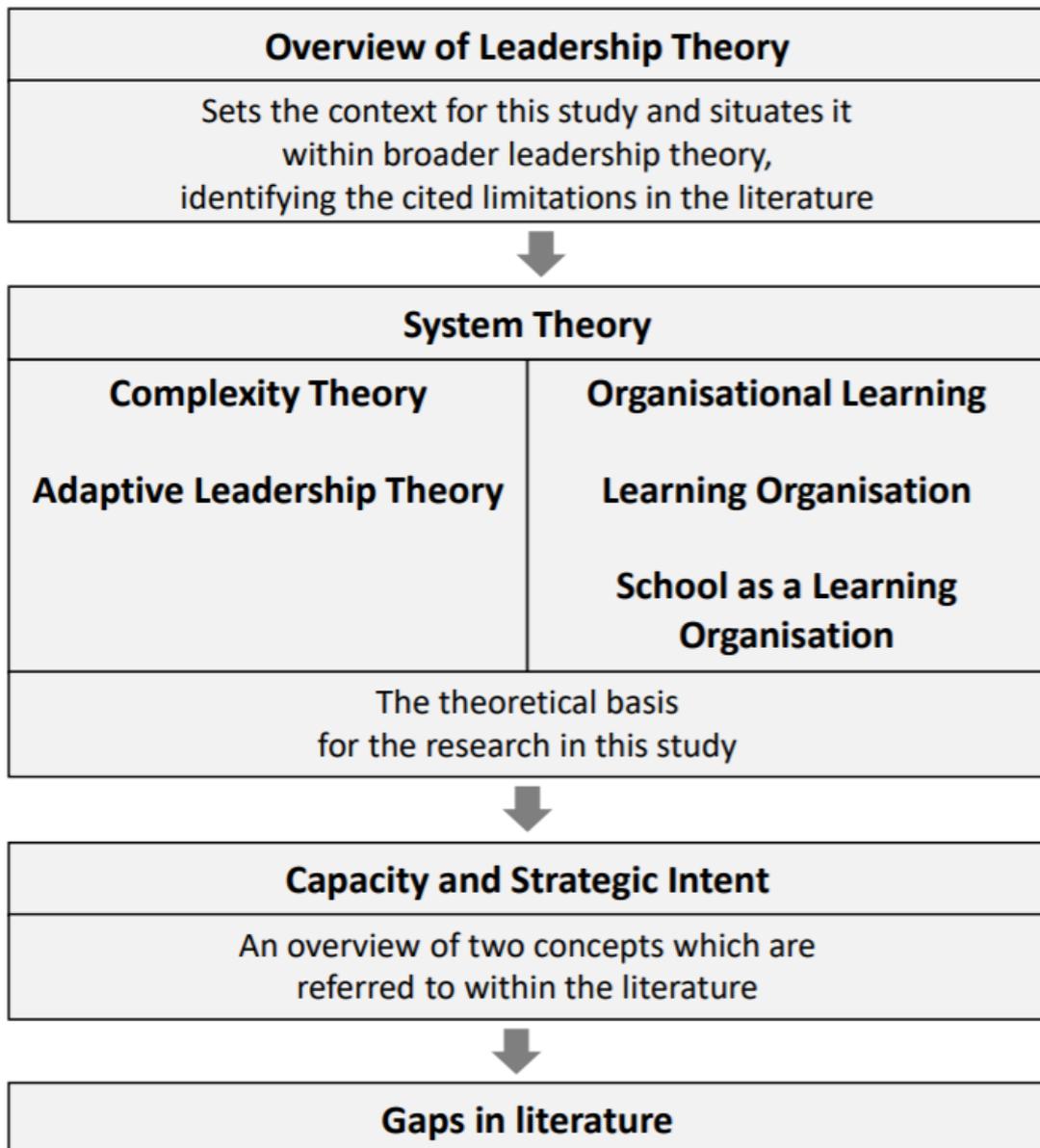


Figure 2.1 - Structure of the literature review in this chapter

This literature review is multi-disciplinary, drawing on three inter-connected knowledge domains: educational leadership, general leadership and organisational leadership. Literature searches were conducted in English language through: UCL Explore, ERIC, SAGE, Google Scholar, Taylor and Francis, Emerald and JSTOR.

Leadership theory

The literature on leadership is vast with many definitions and theories.

The attraction of leadership as a subject of research and the many different conceptions of leadership have created a vast and bewildering literature. (Yukl, 2009, p.12)

Dimmock and Walker (2005) view leadership as 'elusive' due to its ubiquitous and multifaceted nature. No single leadership definition has been accepted as comprehensive enough to explain the range of complexity involved. They caution against the multitude of definitions of leadership for the following reason.

For a definition to gain even a modicum of agreement, it needs to be generalised and somewhat bland. (Dimmock & Walker, 2005, p.11)

Given the vast body of literature, I am narrowing the focus in this chapter.

The rationale for the choice of literature is linked to two drivers:

1. literature fitting within a System Theory perspective; and
2. literature with a focus on managing the future in an increasingly complex operating environment.

Based on this, I will explore Complexity Leadership Theory (Uhl-Bien, Marion & McKelvey, 2007) and Adaptive Leadership Theory (Heifetz, 1994). The rationale for this choice is:

- Both theories originate from a System Theory perspective
- Complexity Leadership Theory claims to address the leadership challenges present in the knowledge era in which we are now living as opposed to theories developed for previous times
- Adaptive Leadership Theory claims that it can be used to address the most complex issues, especially when ambiguity is involved

- There is congruence between many aspects of Complexity Theory and Adaptive Leadership Theory with the elements of the LO literature

Each of the theories referenced above will be explored within this chapter. To provide historical and conceptual context, I will explore a range of leadership theories based on a chronology I have identified.

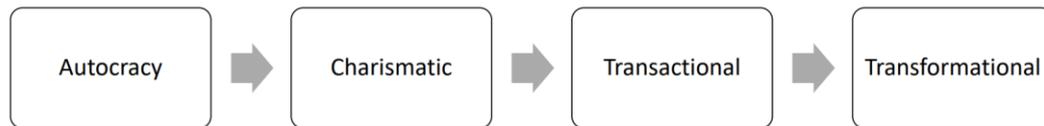


Figure 2.2 - Chronology of leadership theories

In utilising this diagram, it should be noted that none of the four aspects identified in the diagram is mutually exclusive, a view supported by Van Maurik:

It is true that the progression of thinking tends to follow a sequential path, it is quite possible for elements of one generation to crop up much later in the writings of someone who would not normally think of himself or herself as being of that school. Consequently, it is fair to say that each generation has added something to the overall debate on leadership and that the debate continues. (2001, p.3)

By plotting a conceptual continuum, I will argue that Complexity and Adaptive Leadership theories are farthest away from an autocratic approach. The rationale for including this chronology of leadership theory development is to provide the backdrop for considering these theories and to understand what has either informed them or what they are aiming to address to counter criticism.

A brief history of leadership theory

There is a body of knowledge about leadership in ancient times from a range of classical texts, often from the point of view of military battles. It should be noted that many of the accounts of leadership are far from neutral and are partial accounts intended for a particular purpose often of male military leaders aiming to outwit their opponents (Grint, 2011).

The responsibility for a martial host of a million men lies in one man. He is the trigger of its spirits. (Sun Tzu 400-320BC - cited by Grint, 2011, p.4)

This military example typifies an autocratic approach. Many similar quotations refer to male leaders in history who 'won' in the military situation being described. In the military context, the term leadership often refers to people in positions of command, who show the way. Because warfare has played a central role historically in the development of our conceptions of leadership and authority, it is not surprising that the ancient linguistic root of the word 'to lead' means 'to go forth, die' (Morris, 1969). This classical leadership thinking paved the way for the emergence of Trait Theory.

Trait Theory asserts the view that leaders are born with innate gifts that can be attached to their leadership status (Webb, 1915; Gowin, 1918; Bernard, 1928). Trait Theory, sometimes referred to as Great Man Theory, was popular in the early leadership literature with the notion that leaders possess inherent characteristics (Carlyle, 1841). Despite Carlyle's dislike of the early industrial entrepreneurs of Britain, he perpetuated a model of individual heroism which was, "irredeemably masculine, heroic, individualist, and normative in orientation and nature" (Grint, 2011, p.8). However, when attempting to correlate personality and leadership, researchers failed to provide a universal list of traits shared by successful leaders (Stodgill, 1948). Although much subsequent research on leadership exists opposing classical Trait Theory, the notion of Trait Theory remains an archetype in western cultural consciousness (Parks, 2005); for example Bono and Judge (2004) reported that 12 per cent of all leadership research published between 1990 and 2004 included the words 'personality' and 'leadership'. Trait Theory was variously criticised, mainly because it failed to take account of situational and organisational factors.

Charismatic Leadership Theory was an attempt to recognise that leadership takes place in a context characterised by change. As such, intended to deliver followers from a 'difficult time', reducing suffering and anxiety (Weber,

1947). Such leaders were seen to gain influence because of their special talents or gifts that could help people escape pain (Gerth & Mills, 1991). With Charismatic Leadership there is a focus on the personality and behavioural characteristics of the leader (House, Spangler & Woycke, 1991; House & Shamir, 1993). Given the focus on the followers accepting the leader's vision as their own, this is arguably a revival of Trait Theory in a different guise. Meindl, Ehrlich and Dukerich (1985) argue that Charismatic Leadership is romanticised, in the sense that it is more reflective of followers' emotional responses than of the leader's personal characteristics or behaviour. At this stage leadership theory portrayed a divide between the leader and their respective followers. There was a view that earlier theories had run their course and that new approaches were needed to expand the economy. Subsequent leadership theories were attempts to address this.

The next iteration of leadership theories, in the final two decades of the 20th century, were based on the notion that leadership is built on a degree of interactivity between leaders and followers. Transactional Theory is based on "trading one thing for another" (Burns, 1978, p.4), exemplifying the leader's ability to provide, withhold, or exchange rewards contingent on performance (Jones, Gergen & Jones, 1963; Hollander, 1978; Blanchard & Johnson, 1982), identifying a reciprocal relationship between leader and constituents. The development of transactional theory was the first time it was suggested that constituents may have influence over the leader's behaviour (Bass, 1985; Shamir & Howell, 1999; Bass, 2008). This focus on the interaction between leader and followers was succeeded by Transformational Leadership Theory. This theory requires the leader to assist constituents to identify a higher moral purpose and to transcend self-interest (Burns, 1978); to seek to appeal to followers' "better nature and move them toward higher and more universal needs and purposes" (Bolman & Deal, 1997, p.314). Transformational leaders are seen to demonstrate enthusiasm and question the status quo, transforming the desires of individuals in alignment with the overarching purpose of an organisation (Vera & Crossan, 2004; Bass, 2008). The concept and language of transformation became the dominant theory by the close of the 20th century. The work of Burns (1978)

on Transformational Leadership has been considered the beginning of modern leadership theory (Fairholm, 2001) although there has been some subsequent challenge directed at Transformational Leadership in an education context. It has been argued, it may be a vehicle for controlling staff through adherence to the leader's values (Chirichello, 1999); and could be viewed as an extension of adherence to broader government values and ideals (Bottery, 2001).

On entering the new millennium, research drew on this tradition and one can see many influences from the past in proposed theories, supporting the view expressed earlier in this chapter from Van Maurik (2001). Northouse (2001) identifies four common components in the phenomenon of leadership:

1. Leadership is a process
2. Leadership involves influence
3. Leadership occurs within a group context
4. Leadership involves goal attainment

These components stand in opposition to early autocratic approaches and signify a conception of leadership which acknowledges the interrelationship between the leadership, people, and the context of operation. Worthy of note is that the focus shifted from 'leader' to 'leadership'. On a related note, Crawford posits:

The beginning of this century sees a clear move from solo leadership to various forms of shared leadership. (Crawford, 2012, p.611)

This thinking paves the way for exploring System Theory, Complexity Theory and Adaptive Leadership Theory which inform this research. Before considering these, I present some of the often-cited criticisms of leadership theory.

Limitations of leadership theory

There is significant criticism of many leadership theories, questioning whether they remain fit for purpose. As we have advanced deeper into a knowledge economy (Unger, 2019), there is an emergent view that previous

theories may not be suitable as they were fit for an industrial era (Gronn, 1999; Manville & Ober, 2003) and that more complex environments require more than the often cited models of heroic leadership (Pearce & Conger, 2003).

Most of our assumptions about business, technology and organisation are at least 50 years old. They have outlived their time. (Drucker, 1998, p.162)

To structure the perceived limitations and challenges, I have grouped the critique under four themes which are explored below.

1. Potentially conflating authority and leadership
2. Uni-directional conceptions of leadership
3. The relationship between leadership and the external environment
4. Implications of Trait Theory influence on leadership

It should be noted that these are not inclusive of every cited critique, but a summary of some limitations.

Critique 1: This relates to the view that much of the literature appears to conflate the notion of leadership with that of supervision and/or authority as a result of role, with many theories focusing on the supervisor-subordinate relationship (Zaccaro & Klimoski, 2001; Bedeian & Hunt, 2006; Avolio, 2007). More recent theories, including for example Transformational Leadership, refer to, “relationships between supervisors and employees” (Bass, 1990, p.19). DeRue (2011) asserts that throughout Transformational Leadership literature there is an often quoted in-built assumption that leadership will originate from a designated leader. This view is also common in other contemporary theories, for example, Ethical Leadership (Brown, Trevino & Harrison, 2005; Mayer et al., 2009) and Authentic Leadership (Walumbwa et al., 2008). This vantage point of a hierarchical perspective has taken precedence in much of the literature. Ancona and Backman (2008) cite that between 2003-2008, 84 per cent of leadership in management journals approached the study of leadership from a hierarchical perspective. Much literature defines those who are not leaders as ‘followers’ and as such

appears to rule out the possibility of a leadership contribution from non-designated leaders (Bedeian & Hunt, 2006; Hosking, 2006; DeRue & Ashford, 2010).

Critique 2: This relates to a potential contradiction in the leadership literature. Whilst literature often points to leadership being conceived as social process (Bass, 2008; Yukl, 2009), much of the explanation refers to a uni-directional process where one agent (the leader) exerts influence over another (the follower), i.e. top-down (Mechanic, 1962; Mowday, 1978; Schilit & Locke, 1982; Bryman, 1986; Yukl & Falbe, 1990) often with an alignment to pre-set goals (Bass, 1985). This appears to fulfil the idea that leadership in education has often been conceptualised as a solo activity (Crawford, 2012). Whether explicit or implicit, this approach appears to underplay the multifaceted dynamics of leadership.

By endorsing a uni-directional influence pattern, research overlooks the behavioural interdependencies involved in the leadership process, and in particular, how actors co-construct the process of leading and following through mutual influence and the interdependent acts of leading and following. (DeRue, 2011, p.129)

Critique 3: This applies to the way that many theories portray the relationship between leadership and the external environment. Early theories (e.g. Autocratic and Charismatic) tended to view the external environment as 'the opposition' with the work of the leader being a reaction to external forces. More recent theories (e.g. Transactional and Transformational) have increasingly acknowledged an interrelationship with the external environment which is key to what follows when considering System Theory, Complexity Theory and Adaptive Leadership.

Critique 4: This applies to fewer more recent theories but is still at large in much popular leadership literature and concerns the notion that leadership is an innate trait. This standpoint relates to Trait Theory outlined earlier. This view is often expressed in literature by using terminology such as, 'the leader's ability' (House et al., 1999), with a sense that leadership is a static

feature as opposed to a dynamic social interaction (Meindl & Ehrlich, 1987; Grint, 2005).

These criticisms inform the literature choice for this thesis. Bringing some of these themes together, Heifetz (1994) identifies that the common characterisations of leadership advance the perception of the leader as being directly responsible for providing direction, protection and orientation to the organisation. This stands in opposition to some of the assertions in focus in this research. To address this critique of leadership theory, the sections below will explore Complexity Leadership Theory and Adaptive Leadership Theory; both connected by System Theory. These theories stand apart because of the following six points:

1. Both are proposed leadership theories conceived to support how organisations and their leadership face the significant challenges of becoming adaptive in complex environments, where change and uncertainty are paramount (Uhl-Bien & Arena, 2018).
2. Context is integral to understand leadership and not separate from it. Context is not an antecedent, mediator or moderator variable. Leadership is viewed as socially constructed in and from context (Cilliers, 1998; Osborn, Hunt & Jauch, 2002).
3. These theories distinguish between leaders and leadership. Leadership is seen as an emergent, interactive dynamic that is productive of adaptive outcomes (Heifetz, 1994). Leaders are viewed as individuals who act in ways that influence this dynamic and outcomes. Earlier literature has focused largely on leaders as opposed to the more complex systems and processes in which leadership is exhibited.
4. Leadership is viewed as separate from a specific role or title, and allows for leadership which occurs throughout an organisation (Schneider, 2002).
5. Complexity Leadership and Adaptive Leadership address adaptive challenges (typical of the knowledge era) rather than solely technical problems (Heifetz, 1994; Heifetz & Laurie, 2001). This distinction will be explored later in this chapter.

6. Both Complexity and Adaptive Leadership theories recognise the importance and need for conflict and disequilibrium as integral to realising adaptive change (Heifetz, 1994; Heifetz & Linsky, 2017; Uhl-Bien, Marion & McKelvey, 2007; Uhl-Bien & Arena, 2017).

Uhl-Bien, Marion and McKelvey (2007) recognise and credit other approaches to address the perceived shortcomings in leadership theory, for example, Shared Leadership (Pearce & Conger, 2003) and Distributed Leadership (Gronn, 2002). However, they see these are falling short in terms of addressing the nature of leadership for enabling dynamic networks and assert that:

Much leadership thinking has failed to recognise that leadership is not merely the influential act of an individual or individuals but rather is embedded in a complex interplay of numerous interacting forces. (Uhl-Bien, Marion & McKelvey, 2007, p.302)

Complexity and Adaptive Leadership theories reject leadership based on title, inherent character traits, personality type or charisma. Instead, they are predicated on the conception that leadership can be learned and practised from multiple levels of an organisation, without boundary or title.

Adaptability is thus being explored in recognition of the numerous factors within the external environment which impact all organisations and, in this case, international schools. Drawing on the work of Birkinshaw et al (2016) and Uhl-Bien and Arena (2018), organisational adaptability is defined as:

The ability of an organisation to adapt to a changing environment and shifting market conditions. (Schulze & Pinkow, 2020, p.1)

In turn, drawing on the work of Hooijberg, Hunt and Dodge (1997), Parry (1999), Burke, Pierce and Salas (2006), Uhl-Bien and Marion (2009) and Rosing, Frese and Bausch (2011) the following definition for the corresponding leadership is offered:

Leadership for organisational adaptability involves enabling organisations and people to cope effectively with change and uncertainty. Its focus is on how leaders can unleash the potential of systems and people to adjust in ways that can successfully address the needs of a shifting environment. (Uhl-Bien & Arena, 2018, p.89)

This adaptability involves: sensing and assessing new opportunities, seizing value from these opportunities and reconfiguring the organisational structure to enable organisational change and maintain competitive advantage (Teece, Pisano & Shuen, 1997; Teece, 2012).

Having explored the background and history to leadership theory, some of the cited criticisms of these theories and a rationale for focusing on Complexity Theory and Adaptive Leadership Theory, it is important to explore System Theory which is the conceptual nucleus of this research and the common link that connects all subsequent theoretical positions.

System Theory

System Theory, originally known as General System Theory, outlines a framework that addresses the organisational whole by carefully examining the relationship between its parts (Senge, 1990). It views organisations as organisms, dynamic in nature and capable of growth and change (Morgan, 2006). System Theory proposes that what takes place outside an organisation affects what occurs within it and this interrelationship is viewed as important (Lawrence & Lorsch, 1967). By viewing as an interrelationship, organisations are working in a synchronised way with forces beyond their boundaries. This is a stark contrast to Autocratic, Charismatic and Transactional theories which all seemingly view the world 'beyond the boundary' as 'other', often resulting in leadership being 'reactive to' rather than 'working with'.

System Theory originates in the work of Karl Ludwig von Bertalanffy (1901-1972) (von Bertalanffy, 1934, 1951), a German biologist who sought to explain how an organism worked, focusing on the transactional processes happening between different parts (Walker, 2012). This concept relates to the work of Weick (1976) who defined systems as having 'open' boundaries

in relation to their operating environment. Weick (ibid) uses the term 'loose coupling' to describe a situation where elements are responsive but retain evidence of separateness and identify. The concept of loose coupling allows theorists to posit that any system can act on both a technical level, which is closed to outside forces as coupling produces stability, and an institutional level, which is open to outside forces as looseness produces flexibility (Orton & Weick, 1990).

Morgan (2006) builds on this work to explain how the interrelationship between the organisation and the environment takes place, with similar assertions from Birnbaum (1988) and O'Connor and McDermott (1997). I summarise this in the table below based on Morgan (2006).

Phase 1	Phase 2	Phase 3	Phase 4
Organisations must have the capacity to sense, monitor and scan significant aspects of their environment	Organisations must be able to relate this information to their operating norms	Organisations must be able to detect deviations from these norms	Organisations must be able to initiate action to address discrepancies

Table 2.1 - Relationship with the environment when operating in a system - based on Morgan (2006)

Morgan (2006) posits that when the above conditions are met, organisations can operate in a self-regulating manner. This aligns directly with work explored later in this chapter on LOs and of Adaptive Leadership with the element of working in an open system being deemed essential, where there is a relationship and intersection with environment (Argyris & Schön, 1996; Senge, 1990; Senior & Swailes, 2010). Newhoffer (2003) underlines the importance of this interrelated interaction in a system.

Relationships in emergent systems are mutual; you influence your neighbours and your neighbours influence you. All emergent systems are built out of this kind of feedback, the two-way connections that foster higher-level learning. (Newhofer, 2003, p.77)

The summary point here is that, over time, these authors assert an interrelationship between an organisation and its organisational context and that feedback is an essential element in this relationship. This is contrasted

with an organisation that is deemed closed to the context. Portfelt (2006) concludes that these 'closed' organisations have less ability to learn. Without this learning at an organisational level, organisations are in danger of becoming less relevant and, at worse, extinct. The purpose of this study is exploring the opposite to this, in enquiring how international schools proactively ensure their relevance and future sustainability.

Senge (1990) placed System Theory as the conceptual cornerstone of his model with the view that most of an organisation's problems are connected to the system. In other words, not confined to issues within the boundary of the organisation. Senge views organisations as "bound by invisible fabrics of interrelated actions" (Senge, 2006, p.7). I conclude that System Theory is the conceptual grounding for much of the remaining literature review. In subsequent sections the following theoretical positions will be explored:

- Complexity Theory
- Adaptive Leadership Theory
- Work linked to LOs

Each of the above are conceptually linked by System Theory, predicated on the view that an organisation works within an 'open system' where there is a relationship and intersection with environment (Argyris & Schön, 1996; Senge, 1990; Senior & Swailes, 2010).

Complexity Theory

Complexity Theory emerged as a different way of viewing the world and organisations, emerging first in the physical sciences in the 1970s but it quickly made its way into the social sciences in the 1990s (Wheatley, 1992; Sterman, 1994; Richardson & Cilliers, 2001). In its simplest conception, Complexity Theory challenges a mechanistic or linear view of the world where cause and effect solutions are used to explain (Gomm & Hammersley, 2001) and moves towards an organic, non-linear view (Santonius, 1998). In the same way that new methodologies have challenged a traditionally

positivist view of the world, Complexity Theory challenges the classical science view, seeing nature as dynamic, unstable and unpredictable (Prigogine, 1997). In relation to organisational science, Complexity Theory encourages us to see organisations as complex adaptive systems composed of a diverse mix of agents who interact with each other, affect each other, and in turn, generate new knowledge and new ways of understanding (Marion, 1999; Regine & Lewin, 2000).

The link between Complexity Theory and general leadership theory was made as an attempt to provide a different mindset for considering leadership, more suited to a complex and rapidly changing world. It also arose through a view that many of the leadership theories were outdated and not fit for purpose, often seen as 'top-down' (Osborn, Hunt & Jauch, 2002). This view is exemplified by Hunt (1999) who described the period of leadership research in the 1970s and 1980s as 'doom and gloom' with research that was viewed as fragmented, unrealistic and lacking application. There was an emerging perception that social processes are too complex and messy to be attributed to a single individual or pre-planned stream of events.

I understand that as researchers we need to simplify very complex processes to study them carefully, but what are we left with when we remove the messiness, the back-and-forth, the reality? (Finkelstein, 2002, p.77)

Hunt argued that this period ended with the emergence of 'the new leadership school' (Bryman, 1992), which included transformational approaches, citing this as a paradigm shift. This was a view supported by Marion and Uhl-Bien (2001) who posit that whilst a positive change in direction, the emerging leadership theories were still reliant on a view that leadership is interpersonal influence (Katz & Kahn, 1978; Bass, 1985; Graen & Uhl-Bien, 1995; Gardner & Avolio, 1998), that leadership rests with the character or the characteristic behaviours (Seers, 2004) and with a primary focus on leader attributes and follower emotions (House, Spangler & Woycke, 1991). In critiquing earlier theories of leadership, Marion and Uhl-Bien (2001) argue that the theories are not fit for purpose in an increasingly

complex world due to their focus on two key factors. Firstly, that they are reductionist in identifying specific parts of the system which are studied in isolation with the view that by understanding separate parts one can extrapolate and understand the whole. Secondly, that many leadership theories were deterministic in outlook, with a view that all events are caused by preceding events. They counter this view with the proposition of Complexity Leadership Theory which instead views matters more holistically, asserting that leadership is more about exploring the interconnections between organisation and people and secondly about creating the right conditions for facing complex challenges. What they present, turns earlier leadership theory on its head, arguing that earlier theories have looked for prescriptive routes for explanation. Marion and Uhl-Bien (2001) instead propose that social systems are non-prescriptive and it is about leaders creating the right conditions for bottom-up dynamics alongside general control to keep the system focused. In presenting, they recognise that proponents of Transformational Leadership go some way to addressing this (Bass, 1985; Boal & Hooijberg, 2001; Schein, 2010) but argue that the perspectives are still limited with an in-built assumption that leaders directly control and determine future events with their actions. They argue the following:

We believe the question has been so encapsulated by the reductionist mindset of science that the alternative has been overlooked. The alternative is simple: to temper our focus on controlling organisations and futures and instead develop leaders' abilities to influence organisational behaviour in ways that enhance the odds of productive futures. (Marion & Uhl-Bien, 2001, p.403)

To go one step further, leadership is more than a skill, an exchange or a symbol - leadership emerges through dynamic interactions (Bradbury & Lichtenstein, 2000). Some may argue that Complexity Leadership Theory diminishes the role of leadership by redirecting away from the individual as leader. A range of scholars argue against this assertion, noting instead that it recognises that leadership transcends the individual by being fundamentally a system phenomenon (Marion & Uhl-Bien, 2001; Uhl-Bien,

Marion & McKelvey, 2007; Hazy, 2006). Having established the concept of Complexity Theory, the notion of Complex Adaptive Systems was born to understand the interrelationships within open systems.

Complex Adaptive Systems

From Complexity Theory comes the idea of a complex adaptive system (Marion, 1999).

In a complex adaptive system, relationships are not primarily defined hierarchically, as they are in bureaucratic systems, but rather by interactions among heterogeneous agents and across agent networks. (Lichtenstein et al., 2006, p.2)

Within a complex adaptive system there is a response to external and/or internal pressures which, when well led, leads to emergent learning and adaptability. A range of authors distinguish between a 'complex' system or problem from a 'complicated' one. Cilliers (1998) asserts that if a system can be described in terms of its individual constituents, it is merely complicated. This is different from a system which is reliant on an interaction between the system and the environment and, as such, cannot be understood by simply analysing its components - this type of system or problem is complex. Marion and Uhl-Bein (2001) support this and view complex systems as organic and often unpredictable. Change can take place within complex systems, not necessarily through a systematic process but as a result of emergence of new learning (Marion, 1999), tension (Prigogine, 1997) and through connections with other agents or networks outside the organisation (Bak, 1996). These, so called, complex adaptive systems take System Theory to a new level. Based on the views outlined here, organisations are not simply interrelating with their environment but somehow intimately connected, almost as if for growth and survival. Comparing back to earlier work around Trait Theory, the proposition of complex adaptive systems is conceptually a long way apart. Given this distance, it is essential to consider the type of leadership required within such a system.

Complexity Leadership Theory

Complexity Leadership Theory moves away from a focus on the individual leader and more to the leadership interaction that takes place in response to specific needs and events. Central to this approach is the view that leadership is not necessarily fixed and attached to a person due to designated role or title.

There is a growing sense that effective organisational change has its own dynamic, a process that cannot simply follow strategic shifts and that is longer and subtler than can be managed by an individual leader. It is generated by the insights of many people trying to improve the whole, and it accumulates, as it were, over long periods. (Heckscher, 1994, p.24)

Complexity Leadership Theory provides a framework for explaining interactive dynamics which have been acknowledged by a variety of other leadership theories, including Shared Leadership (Pearce & Conger, 2003), Collective Leadership (Weick & Roberts, 1993), Distributed Leadership (Gronn, 2002; Brown & Gioia, 2002), Relational Leadership (Drath, 2001) and Adaptive Leadership (Heifetz & Linsky, 2017). Complexity Leadership Theory aims to bridge the gap between traditional bureaucratic notions of leadership with an approach that allows for dynamic interaction with the environment and its constituent parts. This aim of bridging the gap is in response to a well-articulated tension which authors believe exists between two types of work. Based on the work of Uhl-Bien and Arena (2018) I summarise these two potentially competing elements of tension in the table below.

Based on Uhl-Bien and Arena (2018)	The need to efficiently leverage existing capabilities		The need to create new capabilities to ensure the future viability of the organisation
Based on Rosing et al (2011)	Referred to as exploitation (i.e., of existing resources and capabilities)	vs	Referred to as exploration (i.e., of new resources and capabilities)

Table 2.2 - Completing elements of work resulting in tension - based on Uhl-Bien and Arena (2018)

A common response to this is to look back to existing well-rehearsed models of leadership, attaching Transactional Leadership and Transformational Leadership to each of the above (Avolio, Bass & Jung, 1999). Lichtenstein et al (2006) challenge this typology for being over simplified in a highly complex world. Associated commentators believe that by simply ascribing historically defined leadership theories, fails to account for the complexity of leadership in practice (Gronn, 2002) and that the unidirectional focus on processes do not address more recent thinking which views leadership as reciprocal, dynamic and distributed (Yukl, 1999; Uhl-Bien & Marion, 2009). Many theories from the start of the 21st century view leadership as emerging from social processes and that the interaction of individuals and groups in organisations should take account of collective, shared or a horizontal view of leadership (Gronn, 2002; Parry, 2011).

In seeking to find a way forward and in challenging the notion of looking backwards, Uhl-Bien and Arena (2018) propose Enabling Leadership as a theoretical bridge between the two aspects of leadership referred to in the preceding paragraph. It is proposed that three leadership functions are intentionally considered (Uhl-Bien, Marion & McKelvey, 2007; Uhl-Bien & Arena, 2017; Uhl-Bien & Arena, 2018) and I summarise these in the table below.

Administrative Leadership	Adaptive Leadership	Enabling Leadership
Actions of individuals and groups in formal managerial roles who plan and coordinate activities to achieve outcomes in an efficient and effective manner, including managing organisational strategy.	Adaptive, creative, and learning actions that emerge from interactions. It is an emergent dynamic that occurs among interactive agents and it not an act of authority. This results in the primary source by which adaptive outcomes are produced for an organisation.	Works to catalyse the conditions in which Adaptive Leadership and Administrative Leadership can thrive together.

Table 2.3 - Elements of Complexity Leadership Theory - based on Uhl-Bien and McKelvey (2007) and Uhl-Bien and Arena (2018)

A range of scholars point to the need for leaders to blend 'leadership for exploitation' with 'leadership for exploration' to build adaptive capability in the organisation (Birkinshaw & Gibson, 2004; Jansen, Dusya & Crossan, 2009; Probst, Raisch & Tushman, 2011; Rosing, Frese & Bausch, 2011). This, so-called, Enabling Leadership is defined as the ability to alleviate the tension between 'exploration' and 'exploitation' (Uhl-Bien & Arena, 2018). Whilst being viewed as alleviating tension, March (1991) proposed that it also introduces a tension into the organisation. Indeed Lubatkin, Simsek and Ling (2006) suggest that the notion of Enabling Leadership can be a source of conflict between different approaches to leadership, summarised by Papachroni, Heracleous and Paroutis (2016) as a tension between innovation and efficiency. Relating this back to Complexity Theory, this mid-ground point or emergent order (i.e. adaptability) comes from the simultaneous presence of disturbing elements that push a system toward chaos and stabilising elements that push toward order (Chiles, Meyer & Hench, 2004).

Within this model the three functions are woven together and not viewed as separate. This is sometimes referred to as 'entanglement' (Kontopoulos, 1993) - describing the dynamic relationship between traditionally formal administrative forces and the more informal emergent or adaptive forces. Whilst this all sounds relatively straightforward when presented in isolation, the reason that scholars assert the distinction above is that evidence suggests that when faced with challenges the majority of organisations respond with the aim of restoring order and utilise previous solutions to introduce greater accountability and bureaucracy (Uhl-Bien & Arena, 2017). This is sometimes viewed as organisations 'pulling back to the equilibrium and stasis' (ibid). It is proposed that adaptive responses to such challenges,

...resist the pull to order and capitalise on the collective intelligence of groups and networks. They do not turn to top-down responses, Instead, they engage networks and emergence. (Uhl-Bien & Arena, 2017, p.10)

Uhl-Bien and Arena (2017) define the place where this adaptive work takes place as 'the space between'. This is central to this conceptual offering. The

fact that it is *the space between* makes clear that an adaptive offering or solution is not owned by a person but rather than it is an outcome of interaction. As such, adaptive responses cannot be managed in the traditional sense, they need to be enabled. I summarise this in the diagram below.

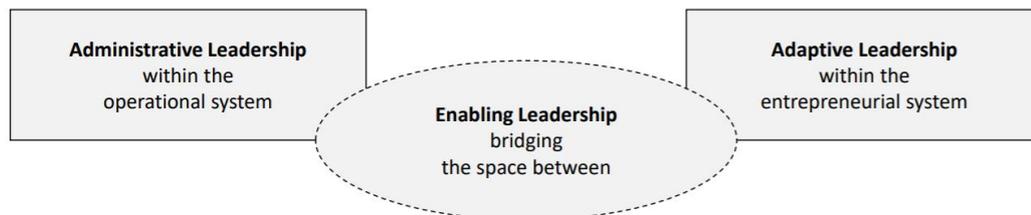


Figure 2.3 - Representation of the three functions of leadership within Complexity Leadership Theory

Within this model, Enabling Leadership is the interface between the two more obvious aspects of leadership. It is the skill of the Enabling Leader to know how and when to pull on different functions of leadership.

Leaders within adaptive organisations capitalise on the tension created between the entrepreneurial system and the operational system to generate innovative new thinking and productive adaptability for the system. (Uhl-Bien & Arena, 2017, p.12)

Uhl-Bien and Arena (2017) explore the leadership behaviours of Enabling Leaders and a summary is included in Appendix 3. There are close links between Complexity Theory and Adaptive Leadership Theory which is explored below.

Origins of Adaptive Leadership Theory

The notion of adaptability originates in ideas made popular by the works of Charles Darwin (1859) as the foundation of evolutionary biology. Argued by Eichholz (2014) that it applies not only to biological science but also to social evolution.

In biology, adaptation is a natural process that organisms engage in unconsciously. By contrast, organisational adaptation is conscious work. (Eichholz, 2014, p.10)

Conceived in the 1990s, it is not entirely new and although not used as an explicit term, the notion of organisational survival and adaptation to the operating environment has been well iterated (Barnard, 1938; Simon, 1947; Selznick, 1957; Thompson, 1967). The roots can be traced back to the 1930s and a brief insight into the history is important. Firstly, because it informs more recent writing and secondly to align with the methodology for this study. The development can be traced back to Mead (1932, 1934, 1938) who wrote about inter-subjectivity in the establishment of both individual and collective behaviour, and the creation of meaning through social interaction. Allport (1954, 1962, 1967) built on this work by conceptualising social structures as an ongoing cycle of events. Allport influenced the way that leadership and events were studied with a view that analyses of interaction over time should replace an examination of single variables as the cause of a dependent pre-assigned outcome. Weick (1979) argued that the basic unit of the organisation is the 'double interact' of interdependent behaviours between individuals, again reinforcing that importance of this interaction as the basis for creating meaning. This historical perspective asserts a socially constructed concept for leadership. Buber (1970) defines this as, meaning emerging in the 'spaces between' people rather than in the acts of individuals, per se; forming a view of leadership being relational (Bradbury & Lichtenstein, 2000).

Adaptive Leadership Theory

Adaptive Leadership Theory was developed by Ronald Heifetz (1994) and has been developed and extended into the area of Adaptive Capacity (Van Velsor, 2003; Van Velsor, 2003; Heifetz & Linsky, 2004; Loren, 2005; Heifetz, 2006; Heifetz, Grashow & Linsky, 2009; DeRue, 2011; Eichholz, 2014; Campbell-Evans, Gray & Leggett, 2014; Khan, 2017). I summarise Adaptive Leadership Theory in the table below (Heifetz, 1994; Heifetz & Laurie, 1997; Heifetz & Linsky, 2017).

Adaptive Leadership Theory asserts ...	Adaptive Leadership Theory rejects ...
<p>... a framework for leadership as a shared concept with the focus on leadership being distributed.</p> <p>... the leader as being central to engaging others in developing shared responsibility for identifying challenging problems and participating in defining and implementing adaptive solutions</p> <p>... that leadership is malleable and can be learned.</p> <p>... that leadership can be practiced from any level of the organisation, regardless of background and/or title.</p>	<p>... any notion that leadership is based on inherent traits, a particular personality style or a role title.</p> <p>... the more traditional notion of the leader as lynchpin.</p>

Table 2.4 - Summary of Adaptive Leadership Theory

None of the cited authors suggest that Adaptive Leadership Theory is superior to other theories and readily acknowledge its conceptual framework builds on other work. However, they do assert that it addresses some of the limitations outlined earlier. Adaptive Leadership is presented as a way to address challenges which require profound change in an organisation's capacity and beliefs, often through addressing multi-layered, value-based problems (Heifetz, 1994). The distinguishing features of Adaptive Leadership are explored in the five points below.

1. Relationship with System Theory
2. Adaptive Leadership as a malleable and learned behaviour
3. Leadership and authority
4. Leadership-follower relationship
5. Leadership and direction of influence

Relationship with System Theory: Adaptive Leadership falls firmly under the umbrella of System Theory (explored earlier) with a view that each organisation is working in an interrelated manner with the operating

environment. Many approaches to leadership define and describe a process that stands in isolation from external factors. Adaptive leaders do not just make changes, they intentionally explore and interact with the external environment and consider the best path that will positively affect the organisation (Glover, Rainwater & Friedman, 2002; Khan, 2017).

Adaptive Leadership as a malleable and learned behaviour: In opposition to the notion of inherent traits, Heifetz (1994) posits that leadership is a prescriptive activity that can be learned and must be practised if leaders are to become responsive, flexible and improvisational in the face of complex problems.

Leadership and authority: Heifetz (1994) posits that leadership and authority are often confused and conflated, urging for a clear differentiation. He suggests that authority is often seen as the possession of powers based on formal role. Whereas leadership is something less formal - the ability to make sense of, and act in, situations that are out of the ordinary. As such, Heifetz (ibid) asserts that leadership is not limited to people in traditional positions of authority. Adaptive Leadership allows the mobilisation of people to tackle challenges and thrive (Heifetz, Grashow & Linsky, 2009). There is a strong assertion that leadership can be practised by anyone within the organisation, adopting a distributive or collective model of leadership which cultivates a diversity of viewpoints (Mulder, 2017). This notion of collective leadership has subsequently been built on by many authors who acknowledge that given the complexities of leadership challenges being faced, traditional hierarchical models which imply leadership is invested in a single person are outdated (West-Burnham, 2004). In building this notion of leadership beyond an individual, Macbeath (2005) identified four premises for building collective leadership. These are identified below:

1. Respect, listening to and valuing the views of others
2. Personal regard, intimate and sustained personal relationships that undergird professional relationships
3. Competence, the capacity to produce desired results in relationships with others

4. Personal integrity, truthfulness, and honesty in relationships

Leader-follower relationship: Many leadership theories are grounded in the context of the supervisor-subordinate relationship, i.e. leader-follower (Bedeian & Hunt, 2006). De Rue (2011) reports that between 2003-2008, 84 per cent of leadership research in management journals approached the study of leadership from a hierarchical perspective. While recognising that formal hierarchies can influence the emergence and evolution of leader-follower processes, we must also recognise that leadership, even within hierarchically structured groups, is not synonymous with hierarchy, supervision and formal authority (DeRue, 2011, p.128). Heifetz argues that the conception of Adaptive Leadership requires a conceptual redefinition from the leader-follower conception with an in-built dependence to one of interdependence. He asserts that people who influence others to change attitude or behaviour are leaders and do not need to rely on authority (Heifetz, 1994).

Leadership and direction of influence: Much literature on leadership foregrounds a uni-directional process with influence of another (DeRue, 2011). By endorsing a uni-directional influence, some of the behavioural interdependencies are overlooked, in particular the interplay between leadership and participants and the interdependent acts of leading and following (DeRue & Ashford, 2010).

Types of challenge linked to Adaptive Leadership Theory

In debating the merits of Adaptive Leadership Theory, a distinction is made between the challenges which may benefit from Adaptive Leadership versus those which may not. This involves conceptualising the types of challenge faced by organisations and dividing into two categories. I summarise these in the table below (based on the work of Heifetz, 1994; Heifetz and Laurie, 1997; Heifetz and Linsky, 2004).

Technical Challenges	Adaptive Challenges
The type of issue that the organisation already possesses the capacity to solve	The type of issue that requires new ways of thinking, acting or even the acquisition of a new skill set

Table 2.5 - Contrasting the definitions of technical and adaptive challenges

Given the importance placed on these two types of challenge, these definitions are explored further.

Technical Challenges are those that can usually be diagnosed and resolved within a relatively short timescale, drawing on existing expertise and knowledge from within the organisation (Heifetz, Grashow & Linsky, 2009). Technical problems are often addressed through executing established processes. The type of leadership exercised falls within traditional notions of leadership with the leader being the key lead on problem solving. This aligns with Weber's (1947) conception of the work of leaders: to provide solutions in exchange for authorisation from followers to lead. Weber asserted that leaders bring a community together by providing solutions to problems.

Technical Challenges can be contrasted with Adaptive Challenges which, it is asserted, cannot be addressed within the existing capacity of the organisation or without the development of new mental models and attitudes (Heifetz, 1994; Heifetz & Linsky, 2004; Marzano, Waters & McNulty, 2005; Heifetz, Grashow & Linsky, 2009; Marzano & Waters, 2009). Adaptive Leadership is defined as leadership for complex, multifaceted contexts and challenges in times of change. A key differentiator here is that for Technical Challenges the resource required to address the challenges is already within the organisation, whereas for Adaptive Challenges it is not. This is where the connection with System Theory comes into play. Adaptive Challenges require an interplay beyond the boundary of the organisation and are reliant on resources that may sit outside the organisation (Heifetz, Grashow & Linsky, 2009). In clarifying why a problem is deemed challenging, Heifetz (1994) asserts it is because it requires multiple vantage points to gain a deep understanding of the issues at play.

Adaptive work is required when our deeply held beliefs are challenged, when the values that made us successful become less relevant and when legitimate yet competing perspectives emerge. (Heifetz & Laurie, 2001, p.132)

To put this into context, a Technical Challenge which may be faced by a school is the implementation of a new examination process. This is a sizeable

task and is complicated, but not complex. The school will utilise its existing resources to make this happen. This can be contrasted with a school that is defining its strategic intent and seeking to re-design its curricular offer to meet the changes in society and a changing demographic in the school. This latter challenge requires a 360-degree view of the situation and there is no 'rule book' which determines the correct pathway to address.

Adaptive Challenges are the most confounding type of problem and require people to change their theory of efficacy, attitudes, values and behaviours. This can result in people experiencing a sense of disequilibrium due to the challenge of existing values and the possibility of a requirement to view and interact differently with problem solving (Argyris & Schön, 1974; Heifetz, 1994). Heifetz (ibid) asserts that deep change is only likely to occur when leaders and others work together to address Adaptive Challenges with the possibility of changes to organisational priorities, practices, beliefs, habits and loyalties (Argyris & Schön, 1974; Senge, 1990; Fullan, 2005). In a more recent view, Eichholz (2014) adds that a key component of adaptive work is the idea of new learning versus reliance on existing organisational knowledge. Eichholz (2014) cautions that the identification of the problem is critical because there is an inbuilt tendency to want to use existing knowledge or ways that are familiar, sometimes to avoid adaptive work which is more challenging. To exemplify, he quotes an old saying attributed to Abraham Maslow (1908-1970).

When I have a hammer, everything looks like a nail. (Eichholz, 2014, p.24)

Eichholz (2014) updates the work of earlier authors in conceptualising these two distinct types of work and I summarise these in the table below.

Technical Work	Adaptive Work
Often no significant choices	Characterised by difficult choices and potential losses
Straightforward to address and executed through precise instructions	Time consuming and demands lots of conversation and renegotiation
Calls for hands, feet, and mouths	Calls for brains, hearts, eyes, and ears
Focused on the task	Focused on people connected to the task
Linear in orientation	Systemic in negotiating complex relationships and feedback loops
Can be addressed by commands from those in authority	Requires leadership
Runs smoothly	Often accompanied by conflict and distress
Demands precisions and can be documented in writing	Demands creativity and can be constrained by written protocols
A focus on managing	A focus on experimenting
Calls for homogeneity	Calls for diversity

Table 2.6 - Contrasting two types of work - based on work of Eichholz (2014)

Despite the view that Adaptive Challenges engage in new learning for the organisation, it is asserted that this is often much more of an evolution rather than revolution. The analogy that is often used when exploring Adaptive Challenges is a parallel with evolutionary biology in the sense that evolution builds on what has gone before as opposed to creating something entirely new.

This is an important point stressed by Heifetz (ibid). Adaptive Leadership is not simply about change, it is conservative as well as progressive. In literature it is often described as ‘mobilising change’ as opposed to ‘transformational change’. The challenge is seen in how to capitalise on history without being enslaved by it (Loren, 2005). Heifetz (ibid) notes that with adaptive challenges it is as important to discern what to keep as it is to decide what to discard in terms of organisational behaviour, values and beliefs. Sustainable and transformative change is more evolutionary than revolutionary, conserving more cultural DNA than it discards. (Heifetz & Linsky, 2017, p.xiii)

Literature related to Adaptive Leadership places importance on the accurate diagnosis of the type of challenge to be addressed as part of the theory, identifying common errors. Heifetz et al (2009) believe that data and analysis from multiple perspectives is essential and that diagnosis is often not given the emphasis and depth required. This is because leaders are often amid action and cannot prioritise the space to discern the complexities at play. Aside from desiring the most effective solution, it is asserted that correct diagnosis is essential because the two problem types defined in table 2.6 require different approaches to leadership (Heifetz, 1994; Heifetz & Linsky, 2004). From the literature, I have identified three specific issues related to this aspect of diagnosis.

1. It is proposed that there is a common preference to treat all challenges as technical – thus applying technical solutions that have worked in other situations with the hope that they will address the issue (Argyris & Schön, 1974; Fritz, 1989).
2. Argyris and Schön (1978) define the incorrect diagnosis of an organisational challenge as ‘failed error recognition’. In their view this is as a result of overreliance on the leader’s personalistic assessment (Argyris & Schön, 1974; Bateson, 1979).
3. This misdiagnosis of a challenge or problem can often be linked to pressure or perceived pressure to return the organisation to stasis (Argyris & Schön, 1974; Cuban, 1990; Fullan, 2005; Marzano, Waters & McNulty, 2005). Heifetz and Linsky (2017) note that in the face of adaptive pressures, people often do not want to struggle and ask questions, rather they want quick answers. There is a direct link here to the work cited earlier on Complexity Theory and the desire to regain stasis (Uhl-Bien & Arena, 2017).

Adaptive Leadership for Adaptive Challenges

Given the explanation above about the difference between technical and adaptive challenges, it is necessary to re-visit the nature of Adaptive Leadership to define the type of leadership required to meet the demands of adaptive challenges. Eichholz makes the case for Adaptive Leadership in noting:

As the problems we face become increasingly centred on issues of adaptation, they can no longer be solved by only a few who think and a great majority who execute. (Eichholz, 2014, p.39)

This statement allows the reader to discern where Adaptive Leadership stands on the leadership theory continuum presented at the start of this chapter. There is a strong view that Adaptive Leadership is not the business of a lone person in authority. Eichholz (2014) suggests that a more authoritative style of leadership was suitable in earlier times, especially in the industrial era with a significant amount of control over employees and much technical work. In the current knowledge era, there is a need for greater learning and hence more adaptive challenges to face. Eichholz (ibid) defines the characteristics required for Technical Leadership and for Adaptive Leadership. I summarise these in the table below.

Technical leadership	Adaptive leadership
Satisfy people	Challenge people
Give answers	Ask questions
Provide comfort and safety	Generate disequilibrium and tension
Avoid or covering up tension	Allow differences to emerge
Give instructions	Involve people
Leader faces problem or ignores it	Leader confronts people with the problem

Table 2.7 - Characteristics of technical and adaptive leadership - based on work of Eichholz (2014)

The idea of conflict is important within Adaptive Leadership Theory, identifying it as a necessary catalyst for change. It is asserted that adaptive leadership requires the ability to hold others in, and through, periods of conflict whilst “tackling tough problems” (Heifetz, 1994, p.15). This need to manage conflict is summarised below.

Adaptive work consists of the learning required to address the conflicts in the values people hold, or to diminish the gap between the values people stand for and the reality they face. Adaptive work requires a change in values, beliefs or behaviour. The exposure and orchestration of conflict - internal contradictions - within individuals and constituencies provide the leverage for mobilising people to learn new ways. (Heifetz, 1994, p.22)

Whilst seen as an essential element of Adaptive Leadership, managing conflict and a sense of disequilibrium is viewed as a highly skilled capability in a leader. Heifetz and Linsky caution that leaders need to disturb people “at a rate they can absorb” (Heifetz & Linsky, 2002, p.20). They posit that effective Adaptive Leadership involves maintaining a productive level of conflict without allowing it to overwhelm the leader, the team or the organisation. Heifetz (1994) notes that this can be challenging to leaders as there is often a commonly held assumption that leaders should eradicate conflict. In an interview with Van Velsor, Ronald Heifetz takes a parallel with music:

I like orchestrating [conflict] because in music, the art of harmony is the art of weaving consonance with dissonance. (Van Velsor, 2003, p.3)

This notion of intentionally utilising and valuing disequilibrium does not support the typical conception of leaders as a problem solver and requires a different mindset (Heifetz & Linsky, 2002; Heifetz & Linsky, 2017). This accords with the assertion outlined earlier in exploring Complexity Leadership, that managing disequilibrium is an essential element of leadership (Uhl-Bien & Arena, 2017). Again, returning to the outline of leadership theories early in this chapter, Adaptive Leadership conceives the leader not as the all-knowing authority, but as a facilitator of talent and link with the external environment to tackle adaptive challenges.

It becomes clear from the literature that to lead for adaptability requires that leaders must push away from some long-standing behaviours associated with more traditional forms of leadership. Heifetz and Laurie (2001) identify three aspects connected with this:

1. For named leaders to avoid being the immediate ‘problem solver’ because of their role
2. The locus of responsibility for problem solving when facing an adaptive challenge can shift to a much broader group of people
3. To address adaptive challenges requires work across boundaries, internally and externally.

Heifetz and Laurie (ibid) identify six principles for adaptive leaders to consider as they execute their leadership which I include in Appendix 4.

Adaptive Leadership Theory makes clear the need for leaders to view moral purpose as guiding their work. This link to moral imperative was introduced earlier in relation to Transformational Leadership. The focus on moral purpose is not unique to Adaptive Leadership and is broadly discussed in other leadership literature and seen by many as an essential criterion for effective leadership (Lewin, 1947; Bateson, 1972; Argyris & Schön, 1974; Senge, 1990; Fullan, 2003; Fullan, 2005). Fullan exemplifies moral purpose and relates it to system leadership.

A moral purpose is the link between systems thinking and sustainability. You cannot move substantially toward sustainability in the absence of widely shared moral purpose. The reason is that sustainability depends on the distributed effort of people at all levels of the system, and meeting the goals of moral purpose produces commitment throughout the system. (Fullan, 2005, p.87)

In summary, Adaptive Leadership draws on many aspects of other leadership theories but also stands distinct. In the table below, I summarise some key aspects of the approach based on the originator of this theory, Ronald Heifetz (1994). In the table below I contrast the often commonly culturally dominant view of leadership with that of Adaptive Leadership Theory.

Traditional, commonly held view of leadership		Adaptive Leadership Theory
Leadership as influencing the community to follow the leader's vision	↔	Influence the community to face its problems
Influence is the mark of leadership	↔	Progress in problems is the measure of leadership
A leader gets people to accept their vision	↔	Leaders mobilise people to work through problems
Communities address problems by looking to the leader	↔	Communities make progress on problems because leaders challenge and help them to do so

Table 2.8 - Summary of Adaptive Leadership Theory - based on Heifetz (1994)

This view from Heifetz is supported by a study by Wilson et al (2020) asserting that it can be shown that there is an increasingly collective dimension in leadership mind-frames.

Findings suggest that people understand leadership as a multifaceted phenomenon containing leader-centric and increasingly collective interpersonal dimensions. (Wilson et al., 2020, p.28)

Based on this research, I distinguish leader-centric characteristics from collective leadership characteristics in the table below.

Leader-centric characteristics	Collective characteristics
Dominance	Shared and egalitarian
Traits and charisms	Leadership moments
Influence	Dialogue
Bureaucracy and hierarchy	Collaborative relationships
Power-over	Power-with

Table 2.9 - Contrasting leader-centric vs collective leadership characteristics

This literature is not intended to imply that there is a requirement for only one leadership model but rather that more recent proposals are worthy of consideration.

Adaptability and change

A sensible challenge of much of the literature linked to adaptability would be to question whether it is the same as change. This issue is explored by a range of authors. The consensus view from literature is that leadership for organisational adaptability differs from leadership of change, both equally important. Uhl-Bien and Arena (2018) explore this drawing on the work of a range of scholars. I summarise this in the table below.

Leadership for organisational adaptability	Leadership for change
<p>Leadership for organisational adaptability involves enabling organisations and people to cope effectively with change and uncertainty. Its focus is on how leaders can unleash the potential of systems and people to adjust and adapt in ways that successfully address the needs of a shifting environment.</p> <p>It addresses how leaders can position organisations and the people within them to be adaptive in the face of complex challenges. It taps into current requirements for organisations and those within them to be flexible, agile and adaptive in response to changes associated with a volatile and often unpredictable world.</p> <p>(Uhl-Bien & Arena, 2018, p.89)</p>	<p>Leadership for change focuses on how leaders can drive change top down, e.g. through vision and inspiration.</p> <p>(Uhl-Bien & Arena, 2018, p.89)</p>
<p>Sources: (Hooijberg, Hunt & Dodge, 1997; Parry, 1999; Burke, Pierce & Salas, 2006; Uhl-Bien, Marion & McKelvey, 2007; Uhl-Bien & Marion, 2009; Worley & Lawler, 2010; Doz & Kosonen, 2010; Rosing, Frese & Bausch, 2011; Reeves & Deimler, 2011; Keister, 2014)</p>	<p>Sources: (Zaccaro & Banks, 2004; Griffith et al., 2015; Baur et al., 2016; Margolis & Ziegert, 2016)</p>

Table 2.10 - Comparison of leadership for adaptability vs leadership for change

Through utilising a range of sources (Davis & Eisenhardt, 2011; Day, Griffin & Louw, 2014; Winby & Worley, 2014; Hollenbeck & Jamieson, 2015; Janssen & van der Voort, 2016; Uhl-Bien & Arena, 2017), the concept of leadership for adaptability is identified as having the following features:

- Multi-faceted, drawing on a system level approach
- Strongly focused on interactions within a network and the external environment
- Proactive and nurturing of innovative practices

- Attention paid to collaboration (social capital) and individual performance (human and intellectual capital)

Within the understanding of leadership for adaptability, the focus is on interacting agents generating adaptive outcomes as opposed to a leader getting people to follow their wishes. This is an important distinction as, by implication, it can happen anywhere within an organisation and is not reliant on authority.

Having considered the perspectives offered by Complexity Theory and Adaptive Leadership Theory, both sitting under System Theory, the next part of this chapter turns to the literature connected to LOs and SLOs.

Learning organisation: Big picture

The purpose of this section of the literature review is to explore and critique the literature linked to LOs and SLOs. These theories fit conceptually with the literature related to Adaptive Leadership as there is scholarly consensus that LOs are viewed as working under the umbrella of System Theory (Schön, 1973; McGill, Slocum & Lei, 1992; Marquardt & Reynolds, 1994; Senge et al., 2000; Senge, 2006). Some scholars, to be explored, assert that becoming a LO realises adaptive capacity. There is a conceptual build between three interrelated concepts and each informs the next as I depict in the diagram below.

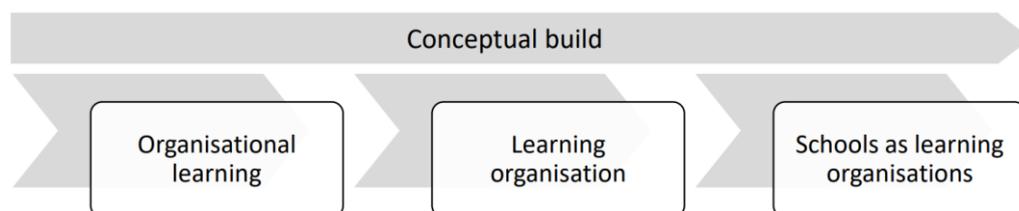


Figure 2.4 - Conceptual build of three interrelated concepts

Some writers use the terms 'organisational learning' (OL) and 'learning organisation' (LO) interchangeably, if not as synonyms, but it is critical to distinguish between the meaning of each. Work related to LOs and subsequently to SLOs originates in research linked to Organisational Learning dating back to the 1950s (March & Simon, 1958). These will be

explored individually but with a sense of chronology to understand the development over time. OL is a concept used to define the process and activity that takes place within an organisation whereas the term LO defines the organisation type in and of itself (DiBella, 1995; Lundberg, 1995; Tsang, 1997; Elkjaer, 1999; Finger & Burgin Brand, 1999). Örténblad (2001) asserts that the degree of normativity is the factor that distinguishes OL from a LO.

Organisational learning

The concept of OL came into being in the 1950s and 1960s (March & Simon, 1958; Cyert & March, 1963) with an emerging view that OL processes allow organisations to adapt and learn from experience. More recently, Örténblad (2001), supported by Tsang (1997), viewed OL as natural and essential for survival (Nevis, DiBella & Gould, 1995; Popper & Lipschitz, 2000), whereas to become a LO requires discretionary effort and intentionality, and is also a route to competitive advantage (Field & Ford, 1995; McLean, 2000; Park, Ribiere & Schulte, 2004).

In essence, OL is concerned with building the learning and knowledge creation capacities in individuals while simultaneously allowing this learning to be shared throughout the organisation (Yang, Watkins & Marsick, 2004). “The process through which the past affects the present and the future” (Argote, 2011, p.439). Wang and Ahmed help to further the understanding of OL by making the link between individuals, the organisation and the context.

It is not simply a collectivity of individual learning processes, but engaged interaction between individuals in the organisation, the interaction between organisations as an entity and interaction between the organisation and its context. (Wang & Ahmed, 2003, p.15)

There has been a growth in the OL literature linked to the speed of technological change, the advance in globalisation and the need to compete globally (Easterby-Smith, Snell & Gherardi, 1998). Over the past 40 years, insight from a range of subject domains has been applied and there is now deeper understanding and a greater consensus. It is possible to discern a maturing of approach. Early literature focused on questions such as, ‘Can

organisations learn or do humans learn?', 'Is learning cognitive or behavioural?'. Some consistent points that arise in literature with considerable consensus are listed below:

- Although learning occurs at the level of individuals, this is embedded at an organisational level for future use (Walsh & Ungson, 1991; Czarniawska-Joerges, 1992; Argote & Ingram, 2000)
- OL can manifest in changes to cognition and/or to actions and behaviours (Easterby-Smith, Crossan & Niccolini, 2000)
- Knowledge developed in the organisation can be explicit or it can be tacit and challenging to articulate (Kogut & Zander, 1992)
- OL is a change in the organisational knowledge as a result of experience (Fiol & Lyles, 1985)

From the 1990s there was an emerging view that OL is not necessarily a 'super brain' within the organisation but more a recognition of the way that learning is shared and used with importance attached to the climate that facilitates the learning of individuals and teams (Senge, 1990; Garratt, 1990; Pedler, Burgoyne & Boydell, 1991; McGill & Slocum, 1993). This view is a recognition of humans as social being within a community of practice (Lave & Wenger, 1991; Brown, Trevino & Harrison, 2005) with knowledge being situated in a context (Lave & Wenger, 1991; Örtenblad, 2001). Örtenblad (2015) asserts that organisations need to make any model their own and match to the needs of a specific context, citing other sectors where bespoke models are required, for example, nursing (Jacobs et al., 1998), not for profit (Hayes, 2002), non-government organisations (Eade & Ligteringen, 2001) and the military (Haugrud, Lehmann & Phillips, 2001).

There is repeated mention by authors that OL is a stepping stone to becoming a LO (e.g. Tsang, 1997; Finger & Burgin Brand, 1999). It should not be assumed that OL is an automatic capacity of all organisations with a view that some struggle to implement (Garvin, Edmondson & Gino, 2008; Taylor, Templeton & Baker, 2010)

Much of the work on OL draws on the work of Argyris and Schön (1974, 1978, 1996) who devised one of the most frequently cited and seminal theories in

this area - 'Single and Double Loop Learning'. They define Single Loop Learning as:

[The action taken] whenever an error is detected and corrected without questioning or altering the underlying values of the system. (Argyris, 1999, p.68)

Single Loop Learning has also been defined as 'survival learning' (Nair, 2001), solving a current problem without considering opportunities for future learning (McGill, Slocum & Lei, 1992). At the simplest level it is a form of correction (Argyris, 1999). McGill et al (1992) asserts, organisations that deploy only Single Loop Learning can maintain their position if past success is sufficient and if the environment remains static. Argyris (1999) contends that most OL is single loop in nature and that this can lead to organisations being 'learning disadvantaged'.

As a contrast, Double Loop Learning is more concerned with determining how a problem surfaced and finding a workable solution so that the same problem does not recur. Argyris defines this:

When mismatches are corrected by first examining and altering the governing variables and then the actions. (Argyris, 1999, p.68)

Double Loop Learning goes further than correction and includes questioning and modifying existing norms (Hosley et al., 1994). In other words it changes the organisational knowledge base which affects future action and behaviour (Dodgson, 1993). Chiva, Ghauri and Alegre make the link between Double Loop Learning and OL, defining it as:

The process through which organisations change or modify their mental models, rules, processes or knowledge, maintaining or improving their performance. (2014, p.689)

Many authors cite Double Loop Learning as essential to effective OL (Argyris & Schön, 1978; Senge, 1990; McGill, Slocum & Lei, 1992; Hitt, 1995). Widely quoted, Single and Double Loop Learning have been built on by a range of others who propose alternative models. I summarise these in the table below.

Argyris and Schön (1974, 1978, 1996)	Single Loop learning	Double Loop learning
Fiol and Lyles (1985)	Lower Level Learning	Higher Level Learning
Arthur and Aiman-Smith (2001)	First Order learning	Second Order learning
March (1991)	Exploitation	Exploration
Miner and Mezias (1996)	Incremental Learning	Radical Learning
Senge (1990)	Adaptive Learning	Generative Learning
Dodgson (1993)	Tactical Learning	Strategic Learning

Table 2.11 - Alternative conceptions of Single and Double Loop Learning

The middle column, aligned with Single Loop Learning, is often referred to as lower-level learning, is passive and only adapts to the current challenge. This can be compared to the right-hand column aligned with Double Loop Learning, which is considered a higher level of learning as it involves active influence on the operating environment and is forward looking (Dimonovski et al., 2008). For the purposes of this research, the model from Argyris and Schön will be utilised given the central prominence afforded to it by a great many scholars.

A concept of 'Triple Loop Learning' has also been proposed, defined by Swieringa and Wierdsma (1994) as challenging and revisiting the founding principles of the organisation and supported by Isaacs (1993), Flood and Romm (1996), Romme and Van Witteloostuijn (1999), Snell and Chak (1998) and Yuthas et al (2004). In summary, these authors talk of Triple Loop Learning being a re-examination of core purpose to see if underlying values are still relevant in a changing environment. If no longer valid they need to be changed. This is a radical shift away from Double Loop Learning where reconfiguration seems to be the answer when perhaps reconceptualisation is required. Triple Loop Learning is a contested concept with no consensus from the literature as to how it fits with Single and Double Loop Learning. Some authors attribute Triple Loop Learning to Argyris and Schön (Mark,

2006; Gilmore & Warren, 2007; Jakimow, 2008). This fact is rebutted with evidence from Tosey et al (2011) who assert that there are no instances of Triple Loop Learning being referred to in the extensive work of Argyris and Schön - either collectively or individually. Based on this contested evidence, the work on Triple Loop Learning will not be explored further within this work.

The work on OL has been instrumental in formulating the conceptual framework which defines a LO.

The link between organisational learning and the learning organisation

The early research on LOs grappled with the issue of what or who was the entity of learning, questioning whether it was possible for organisations to learn. Some argue that only individuals can learn (Leymann, 1989; Simon, 1991; Kim, 1993). This was challenged by others who argue that organisations were able to learn like 'super persons' (e.g. Czarniawska-Joerges, 1992). Over time, the model and thinking matured with an emerging view that in a LO it is the individuals that learn (Garratt, 1990; Jones & Hendry, 1992) with an acknowledgement that team learning evolves from individual learning. The key point identified was that the knowledge acquired by individuals in a LO is utilised within the organisation because it creates a climate that facilitates the learning of individuals (Garratt, 1990; Pedler, Burgoyne & Boydell, 1991; McGill & Slocum, 1993). Argyris summarises:

Organisations do not perform the actions that produce learning. It is the individual acting as agents of organisations who produce the behaviour that leads to learning. (Argyris, 2000, p.67)

There is evidence within the literature that schools are regarded as complex adaptive systems (Kauffmann, 1995) and that in complex systems the whole is greater than the sum of its parts (Bar-Yam, 1997; Goodwin, 2000). Learning in an organisation is seen as occurring when organisations synthesise and institutionalise intellectual capacity, predicated on the generation of an organisational culture which promotes enquiry, sharing and trust (O'Keefe, 2002).

Learning organisation

The origins of the LO concept can be traced to Schön (1973) who argued that in order to manage the transformations occurring in society, organisations must learn how to understand and manage these challenges and become adept at learning. The concept became increasingly popular in the late 1980s. Even at this early stage in the development of the concept, organisations were viewed as being learning systems, capable of undergoing transformation in relation to a changing environment with references to adaptation (West, 1994) and a clear alignment to System Theory. The work on LOs became mainstream in the 1990s following publication by Senge (1990). At this time there existed some early critique of the LO 'movement', citing that much of the early discussion of LOs was utopian (Coopey, 1995) and filled with near mystical terminology (Garvin, 1993). Peters described some of the work as 'maddeningly vague' (Peters, 1992), resulting in Ulrich et al (1993) contending that both conceptual and operational imprecision contributes to everybody seeing whatever they want to see in the LO. Senge, however, defined a LO as:

[An organisation] where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together. (Senge, 1990, p.3)

There are two key points essential to understand the Senge (1990) model. The first is that the 'fifth discipline', systems thinking, is the cornerstone of the model; and the second is that the five disciplines defined by Senge (ibid) should not be treated as separate aspects but that a LO is achieved through the process of interaction between the disciplines (Yang, Watkins & Marsick, 2004). Given the importance placed on the model from Senge, a brief outline of the disciplines is included in Appendix 5. Senge (ibid) proposed a methodology predicated on systems thinking in which people see the relationships between many parts, to recognise patterns in organisational life and to identify processes, rather than focus on linear cause and effect types of relations. This is conceptually related to the notion of open boundary

systems (Weick, 1976) where there are soft boundaries between the organisation and the environment which allow for information flow between the two. Senge was the first to recognise and suggest that the concept of the LO can be applied outside the business environment.

Whilst widely cited as a formative model and the genesis of much further work connected to the LO concept, a specific critique relates to the transferability of Senge's model in a cross-cultural context. Retna (2002) argues that the model from Senge is not culturally neutral and as a result not applicable in a range of contexts, citing that the model is mono-cultural in outlook, particularly of a North American perspective. Retna and Jones (2013) exemplify this critique in relation to a study in the Singaporean context.

Management techniques or systems that are successful in a particular national culture may be inappropriate in another. (Retna, 2002, p.216)

The conclusion drawn by Retna (2002) is that there needs to be a far greater exploration of the impact of culture before further using the model from Senge. The elements from Senge are present in much subsequent work, demonstrating the iterative nature of the conceptual framework. Whilst receiving critique from a range of scholars, the work from Senge has been widely cited. Still today, it appears influential in conceptualising a view of an organisation that has the capacity to learn, adapt and change. The model from Senge is viewed as an aspirational state and a composite theory drawing on a range of traditions (Hodgkinson, 2000). This notion of an aspirational state is supported by others, for example, Marsick and Watkins (1996) who consider becoming a LO an ongoing quest; and Wheatley (1992) who view it as a set of organising principles as opposed to an objective attainable reality. This view can be contrasted with Di Bella (1995) and Finger and Burgin (1999) who regard the LO as a particular type of organisation.

Through analysis of literature it can be seen that the concept of the LO is a way of linking learning at the individual, team and/or system level (Örtenblad,

2018). It is possible to identify some repeatedly cited points in literature linking these different levels of learning and I summarise these below.

- The individual is the primary learning entity (Dodgson, 1993)
- Most of the learning that occurs in organisations is informal and incidental (Marsick & Watkins, 2015)
- All three levels (individual, team, organisation/system) influence each other and work together (Redding & Catalanello, 1994)
- OL is a collective process (James, 2003; Watkins & Marsick, 1993)
- Individual learning alone is insufficient for organisation wide learning to occur (Senge, 1990; Garvin, 1993; Thomas & Allen, 2006)
- Teams are deemed the most important feature of a LO because if teams do not learn, organisations cannot learn (Gould, 2000)
- LO intentionally stimulate conscious learning and foster a culture of learning (Watkins & Marsick, 1993)
- It cannot be assumed that all learning leads to improved organisational performance (Yanow, 1995; Nair, 2001)

The literature base on LOs has been said to be disparate with many definitions, few empirical investigations and few large scale studies (Kools & Stoll, 2016). There are divergent definitions and perspectives on what constitutes a LO and for ease the most often cited are collated in Appendix 6. The diversity in definition has resulted in confusion about the concept (Garvin, 1993; Burgoyne, 1999; Smith & Tosey, 1999). From the list of definitions it would be possible explore a great many models. Instead, I have chosen several models linked to a typology with four perspectives devised by Yang, Watkins, and Marsick (2004) which I depict in the diagram below.

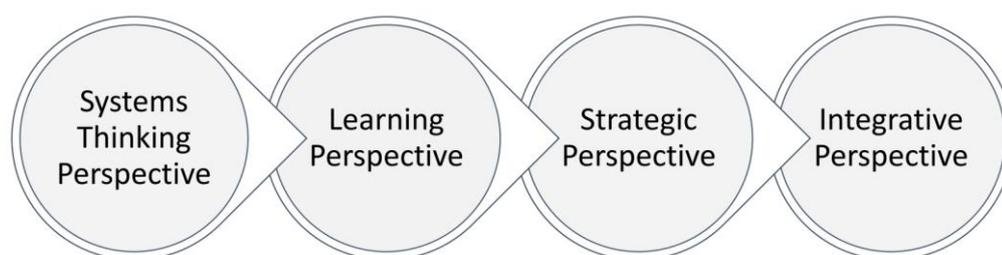


Figure 2.5 - Four typologies for categorising learning organisations - based on Yang, Watkins & Marsick (2004)

I provide a headline summary on each perspective here to illustrate the conceptual build over time. For further information on the perspectives and an example model for each see Appendix 7. The Systems Thinking Perspective is at the heart of the LO model with systems thinking coined the 'conceptual cornerstone' by Senge (1990). Central to this perspective is the assertion that organisations operate in an interrelated manner with their operating environment as part of an open or loosely coupled system (Weick, 1976; Orton & Weick, 1990). The Learning Perspective links closely to the concept of OL with an emphasis on learning for all (Pedler, Burgoyne & Boydell, 1991; Burgoyne, Pedler & Boydell, 1994; Pedler & Burgoyne, 2017). This perspective draws heavily on the work of Argyris and Schön (1974, 1978, 1996) with recognition of the importance of social interaction, context and shared cognitive schemes for knowledge creation (Argyris & Schön, 1978; Lave & Wenger, 1991). A model from Pedler, Burgoyne, and Boydell (1991) typifies this perspective. The Strategic Perspective focuses on the internal drivers required to build learning capacity (Garvin, 1993). An emphasis is given here that learning can be intentionally managed and that managers have a key role in defining this strategy (Garrett, 1987). A model from Goh (1998) typifies this perspective. The Integrative Perspective builds on the preceding three perspectives in this typology and brings together aspects of learning, people and structure. Watkins and Marsick (1993, 1996) propose seven action imperatives that characterise organisations journeying towards becoming a LO at three levels: individual, team, and organisation-wide. The integrative perspective and work of Watkins and Marsick (1996) was the basis for the SLO model which will be discussed in further detail later in this chapter (Kools & Stoll, 2016; Kools et al., 2020).

The basis for considering the learning organisation literature in relation to schools

The literature on the SLO is relatively new but has emerged from a longer history of study on OL and LOs outside the education sector. The rationale for exploring this concept is linked to the position outlined in Chapter One summarising the macro influences and drivers affecting school systems,

related to the increasing velocity of change in their operating environment (Servoz, 2016; Schwab, 2016; Harari, 2018; Universities UK, 2018).

For many school systems, the challenge ahead is formidable. Schools are urged to learn faster than ever before in order to deal with growing pressures of a rapidly changing environment. (Kools & Stoll, 2016, p.15)

As a result of fast paced development in digital technologies and globalisation it is claimed that traditional approaches to teaching and school organisation are inadequate to deliver the required change linked to societal requirements (Schleicher, 2012, 2018, 2020; OECD, 2013). In many ways, this evidence supports a view that schools, like other organisations, are not exempt from having to consider and proactively plan for addressing a broad range of macro factors. Coppieters views schools as “dynamic, unpredictable and complex social organisms” which are “complex adaptive systems based on knowledge management and learning” (2005, p.129). There is evidence that many reforms and initiatives have failed to gain traction and realise the expected improvement (Giles & Hargreaves, 2006; Fullan, 2011; OECD, 2015) and are not delivering fundamental change to schools (Fullan & Miles, 1992). The concept and associated models of the SLO have been proposed as a way of schools ensuring that they can deal with the complexity of challenges in a fast-paced world (Fullan, 1993; Diggins, 1997; Strain, 2000). The quotation below, based on Stoll and Earl (2003) and Stoll (2009) encapsulates the very essence of the SLO and its rationale for existence.

Schools need capacity to learn routinely from the world around them and apply their learning to new situations so that they are able to continue on a path towards their goal in an ever-changing context, and to be able to prepare children and young people both for the present and their future. (Kools & Stoll, 2016, p.12)

To ground the content of this literature review, the quotation above is dismantled to identify some of the key aspects that are explored within this thesis and I summarise these in the table below.

Content from Kools and Stoll (2016, p12) quotation	Expanded view of the quotation	Connection with content in this thesis
“Capacity”	Notion that schools have organisational capacity	capacity
“Capacity to learn”	Notion that schools can learn as organisations	organisational learning
“From the world around them”	Notion that schools are not isolated and that there is interaction with the external world	open systems and systems theory
“Apply their learning”	Notion that organisations can take learning from one context and apply in another	professional learning as an aspect of a learning organisation - knowledge transfer, Argote (2011)
“Path towards their goal”	Notion that organisations are working towards a stated direction as captured in their strategic intent	strategic intent
“Ever changing context”	Notion that the context is important for the development of the school	macro influences and systems theory
“Prepare young people for their present and their future”	Suggests that there is a stand apart difference for schools vs other organisations and that this is connected to a moral imperative for their students	moral imperative

Table 2.12 - Exploring content from quotation by Kools and Stoll (2016)

The almost universal feedback from the literature is that the LO concept is of value when considering how to manage an organisation in an ever-changing environment and especially within a modern knowledge economy (Harvey & Denton, 1999; Grieves, 2000; Rowden, 2001; Kiedrowski, 2006; Bui & Baruch, 2010). Indeed, evidence from outside education asserts:

Organisations that learn faster will be able to adapt more quickly and thereby achieve significant strategic advantages. The new learning organisation is able to harness the collective genius of its people at the individual, group, and system levels. (Marquardt, 2011, p.2)

A body of literature asserts that the promotion of the SLO can support their development and strategic planning as a way of addressing the complex and fast changing operating environment (Watkins & Marsick, 1993, 1996; Kools & Stoll, 2016; Kools et al., 2020). Drawing on work outside education there is growing argument for a reconceptualisation with a lens on the SLO (Silins & Mulford, 2002; Gandolfi, 2006; Giles & Hargreaves, 2006; Schlechty, 2009), which is seen as the ideal type of organisation for dealing with the rapidly changing external environment, facilitating and sustaining organisational change and innovation, and improving student outcomes (Tichnor-Wagner, Harrison & Cohen-Vogel, 2016; Fullan, 2018). Scholars have made a number of attempts to utilise the broader evidence base and apply it to schools (Wallace, Engel & Mooney, 1997; Silins & Mulford, 2002; Coppieters, 2005; Paletta, 2011; Kools et al., 2020). Despite best efforts, the conceptual framework has not had mainstream adoption (Kools & Stoll, 2016) but is still, from a range of authors, asserted as a powerful model for schools to adopt to be well prepared to manage and navigate their future in a fast paced world (Giles & Hargreaves, 2006; Fullan & Quinn, 2016; Benevot, 2017; Schleicher, 2018).

Schools as learning organisations

At the heart of the SLO literature is the concept of System Theory and there have been attempts to apply Senge's (1990) model directly to schools (Johnston & Caldwell, 2001; Park, 2008; Hamzah, 2011). However these models met criticism: for being ill-defined (Santa, 2015; Field, 2019), for being aspirational rather than functional (Harris & Jones, 2018), for being overly broad in scope (Schechter, 2008) and for being vague (Örtenblad, 2002, 2004). Over time, a variety of definitions and models were proposed (Fullan, 1995; Strain, 2000; Silins & Mulford, 2002; Kruse, 2003; Giles &

Hargreaves, 2006; DuFour, 2016). These propositions were similar in viewing the potential for organisations to interact with their environment, to harness individual, team and organisation, and generate new knowledge. Each model took a slightly different angle on the concept. A range of models have also been presented in specific geographies, for example, Iran (Ghahramanifard, Pashaei & Mehmandoust, 2013), Israel (Schechter & Mowafaq, 2012), Korea (Park, 2008), South Africa (Moloi, Grobler & Gravett, 2006), but with none specifically addressing an international school context.

Kools and Stoll (2016) present a thorough analysis of thirty-two models or publications which propose or comment on a model for the SLO, demonstrating the similarities and differences between the models. There has been critique of the SLO models and approach, viewed as lacking systematic empirical investigation (Leithwood & Louis, 1998; Schleicher, 2012), lacking definition (Gunter, 1996; Diggins, 1997; Kirkham, 2005; Higgins, 2012) and for the fact that many studies have been small in scale (Retna & Tee, 2006; Ho Park, 2008; Hamzah, 2011). In undertaking a review of the available literature, Wai-Lin (2004) asserts a strong agreement between models from within and outside education with high value afforded to collective learning, inquiry and action. Wai-Lin (*ibid*) posits that business LOs appear to be more outward looking and concerned with building strong connections than schools, asserting that this appears to make them more aware of staying alert to the changing external environment.

Watkins and Marsick (1996, 1999) devised a model outlining seven imperatives to provide a more operationally applicable model, integrating both aspects of people and structure. I summarise their model in the table below and further detail can be found in Appendix 7.

People related dimensions			
Continuous learning	Enquiry and dialogue	Team learning	Empowerment
Structure related dimensions			
Embedded system	System connection	Strategic leadership	

Table 2.13 An integrated model of a learning organisation - based on Watkins and Marsick (1993, 1996)

Building on the work of Watkins and Marsick (1993, 1996), Kools and Stoll (2016) propose a model of a SLO which will be used as the conceptual framework within this study. The rationale for this is:

- It addresses earlier criticisms and limitations
- It takes account of a wide body of previous models
- It adopts an integrative approach and draws on multiple knowledge domains, not only on LO literature
- It has been empirically tested (Kools et al., 2020)
- It goes beyond a definition and headline model to provide indicators, enabling schools to use as a developmental instrument

The rationale for listing the criteria above and justifying the choice of this model is that based on a review of the available literature. The model from Kools and Stoll (2016) goes further than any previously published model. As a working definition of a SLO, the following will be used:

[A school that] 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 et al., 2020, p.26)

The rationale for the focus on the SLO concept is summed up by Stoll and Kools:

SLOs have been seen as the ideal type of organisation for dealing with the changing external environment, for facilitating organisational change and innovation, and even improvements in students' learning and other outcomes. (2017, p.3)

Kools and Stoll identify seven dimensions in their model plus four transversal themes. I depict these in the table below.

Dimensions of a SLO	1. Developing and sharing a vision centred on the learning of all students			
	2. Creating and supporting continuous learning opportunities for all staff			
	3. Promoting team learning and collaboration among staff			
	4. Establishing a culture of inquiry, innovation, and exploration			
	5. Embedding systems for collecting and exchanging knowledge and learning			
	6. Learning with and from the external environment and larger learning system			
	7. Modelling and growing learning leadership			
Transversal themes	Trust	Time	Technology	Thinking together

Table 2.14 - Schools as a Learning Organisation (SLO) model - Kools and Stoll (2016)

A more detailed version of the Kools and Stoll (2016) SLO model, including the granular elements for each of the seven dimensions is included in Appendix 8. Kools and Stoll are explicit in their view that:

The seven action-oriented dimensions, together, add up to a sustainable learning culture and that the whole - successfully realising all seven dimensions - is greater than the sum of the parts. (Kools & Stoll, 2016, p.32)

This notion of the whole being greater than the sum of the parts is resonant with other literature (Yang, Watkins & Marsick, 2004) and signals the centrality of System Theory underpinning the model. The concept of a SLO is closely aligned in literature to the issue of enhancing internal capacity within the school. This has been extensively explored by Stoll (1999, 2009, 2020). The issue of capacity is dealt with below.

Capacity

Throughout the literature linked to LOs and Adaptive Leadership there are repeated mentions of developing or sustaining capacity. The notion of

capacity, originating in the context of economics, refers to the value of something that when properly invested, produces more of that thing which, in turn, increases the overall value (Sergiovanni, 2001). The concept of capacity is well documented in school improvement literature. Sergiovanni notes that:

Capacity building creates intellectual capacity by emphasising the development of knowledge, competence and skills of parents, teachers and other locals in the school community. (Sergiovanni, 2001, p.48)

Over time, Stoll has explored capacity in the context of school improvement. As early as 1999, Stoll notes that a school with internal capacity can “take charge of change because it is adaptive” (Stoll, 1999, p.506), supported by Garmston and Wellman (1995) who note that schools can embrace complexity. Stoll defines capacity as:

The power to engage in and sustain continuous learning of teachers and the school itself for the purpose of enhancing student learning. (Stoll, 1999, p.506)

The work on capacity within a school improvement context has many direct parallels with the work on System Theory in that there are direct links to the system in which the school is situated (Stoll, 1999, 2009; Hopkins et al., 2014). Stoll makes clear that the connection with the system enables the school to learn to affect improvement.

[Capacity building] is a quality that allows people, individually and collectively, routinely to learn from the world around them and apply this learning to new situations so that they can continue on a path toward their goals in an ever-changing world. (Stoll, 2009, p.125)

In analysing the literature from Stoll (1999, 2009, 2020) there are some clear signposts defining markers of capacity building. To connect these with other aspects of this literature review, I extract key quotations from the above literature and link to other sections of this chapter. This is shown in the table below.

Source	Signpost	Link to broader literature in this chapter
Stoll (1999)	“The ultimate goal of school improvement must be to enhance students’ progress” (1999, p.504)	Reflects moral imperative within the clear purpose defined by the school
	“A school with internal capacity can take charge because it is adaptive” (1999, p.506)	Link to research on Adaptive Leadership
	“External contextual influences on internal capacity” (1999, p.512)	Recognised in System Theory and interrelatedness with operating environment
Stoll (2009)	“No two schools or districts are identical and capacity building have to take account of this” (2009, p.117)	Recognised in the LO literature
	“Capacity building has to connect with the world order” (2009, p.120)	Recognised through Adaptive Leadership, Complexity Theory and Systems Theory underpin of LOs
	“Leadership capacity is developed in schools in which senior leadership pay attention to developing as a team” (2009, p.122) “Lateral capacity building (Fullan 2015) is a collective responsibility” (2009, p.123)	Recognised through distributed or collective nature of Adaptive Leadership
Stoll (2020)	“In SLOs learning with, from and for the benefit of others, knowledge creation and sharing within and beyond the school are part of the organisational DNA” (2020, p.423)	Recognised through Organisational Learning and System Theory

Table 2.15 - Extracts from literature linked to 'capacity' - Stoll (1999, 2009, 2020)

Strategic intent

Within the literature there are references to organisations and schools determining their vision, strategic direction and strategic intent for the future. This is closely linked with the work of an adaptive organisation where it is

proposed that the adaptive characteristic enables an organisation to proactively manage its future. The work in this area is explored through the body of literature related to strategic management. The term 'strategy' originates from a Greek word *Strategos* meaning 'a general' with its root meaning 'army' and 'lead' (Bracker, 1990). Whilst in existence for thousands of years, it was popularised by Frederick Winslow Taylor in 1911, Henri Fayol in 1916 and Max Weber in 1947 (Celic & Dogan, 2011) - all defining what have become known as classical approaches to management.

The reason for specifically exploring the term 'strategic intent (Hamel & Prahalad, 1989) is because of the references to it being of use in a context of ambiguity and uncertainty (Bracker, 1990). It is asserted that strategic intent may be of use for leaders working in a dynamic global environment, balancing internal and external pressures (Mantere & Sillince, 2007).

Strategic intent, as a concept, is designed to work at a higher level than strategic planning, reinforced by Hamel and Prahalad (1989) who have written extensively on the topic. In their view, strategic planning is a means to an end, whereas strategic intent defines the end. This is further clarified by Manterre and Sillince (2007) who clarify that in their view, goals answer the question 'what is to be achieved and when?' while vision is defined by sets of desired goals. For them, strategic intent is not limited by the resources and viability of the desired goals and is therefore different in scope.

Strategic intent is wholly different from strategic management and strategic planning in that it is a psychological concept and is held by a conscious subject capable of forming intentional states. These mental states should be connected and realised within an external reality (Searl, 1983; Mantere & Sillince, 2007). In the view of Hamel and Prahalad (1989) an organisation's strategic intent envisions a described leadership position and establishes the criterion the organisation will use to chart its progress.

Conceptual framing - connecting themes from this literature review

Within this chapter, I have drawn on literature from a range of knowledge domains with a great many connections. I depict these in the diagram below and then provide further detail. The literature falls under the umbrella of System Theory and builds towards organisations having increased capacity to operate in a complex and fast changing environment.

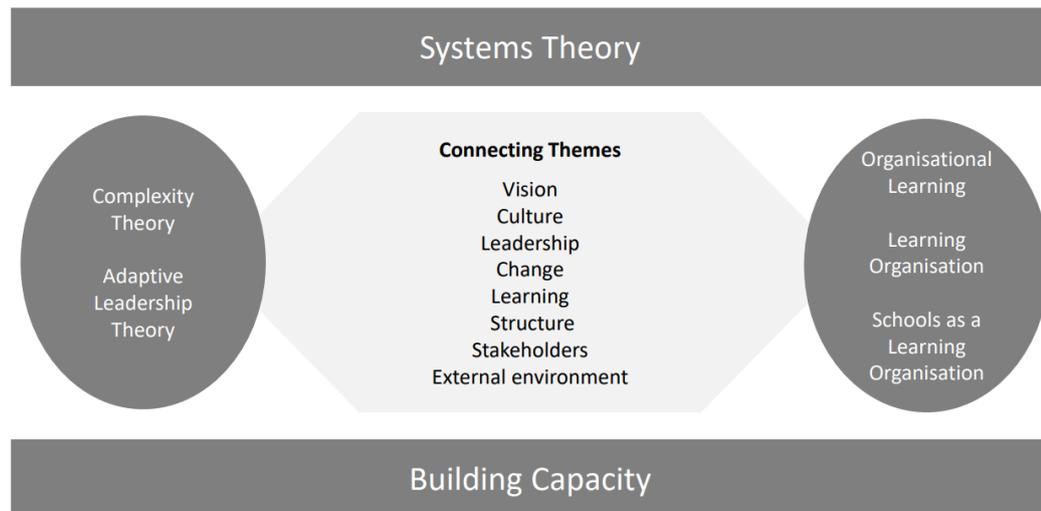


Figure 2.6 - Conceptual connections between content explored in this literature review

Vision: Within all the literature there is a view that vision or strategic intent should be intentionally defined (Wick & Leon, 1995) with a definite view that establishing this does not fall solely within the purview of leaders as defined by role (Pedler, Boydell & Burgoyne, 1989; James, 2003). This vision is defined by Kools and Stoll as a “motivating force for sustained action to achieve goals” (2017, p.8), reinforcing that in a SLO this vision must embed moral purpose and relate to make a difference to all students (Stoll & Kools, 2017).

Culture: There is an explicit view that the LO concept is an attempt to manage the organisational culture (Davies & Nutley, 2000) with a view that culture should support learning in the organisation (Pedler, Burgoyne & Boydell, 1991; Watkins & Marsick, 1993; McGill & Slocum, 1993). In a review of twenty studies, Santa (2015) identified a range of properties defining culture in LOs, this summary is in Appendix 9. A recurrent theme in much of the literature is

the need to establish a culture of enquiry where experimentation is valued (Pedler, Burgoyne & Boydell, 1991; Giesecke & McNeil, 2004) with a mindset of innovation (Schley & Schratz, 2011) and a tolerance of ambiguity (Earl & Katz, 2006).

Leadership: The literature conceptualises a view of leadership that pushes against traditional notions of the leader-follower relationship asserting that leaders can be found at different levels in the organisation (Senge, 1990; Nonaka, 1994; James, 2003).

Change: Literature from all domains makes explicit reference to managing change with a view that LOs build on the theories to allow different types of change, continuous improvement, major change and transformation (Blackman & Henderson, 2005).

Learning: The notion that organisations can learn and be adaptable is at the heart of the literature with the connection between individual, group and organisational learning (Giesecke & McNeil, 2004). Within a SLO, the ultimate ambition being to make a difference to student experience noting the link between professional learning and teachers' practice (Timperley et al., 2007).

Structure: Literature challenges traditional conceptions of a hierarchical structure with a view that organisations should consider more organic networks and delayed structures to enable the maximum contribution from all (Santa & Nurcan, 2015).

Stakeholders: Within the literature there is a repeated view that learning and insight will come from all sections within the organisation, via external partners and that brokering this is not confined to formal leaders based on role - characterised by an openness to new perspectives (Garvin, 2000). Hargreaves and Fullan (2013) view external connections as building and maintaining the professional capital.

External environment: Given repeated mention of System Theory and open systems this is strong element of the literature. This includes being open to the outside world (Mills & Friesen, 1992), have mechanisms to monitor the

environment (Lundberg, 1995), see interrelationships (Senge, 1990) and interdependencies (DiBella & Nevis, 1998) in order to respond to the environmental changes (Guns, 1998; Marquardt & Reynolds, 1994).

Gaps in the literature

Based on analysis of the available literature, I have identified two gaps and one possible ambiguity:

1. Gap in the conceptual literature: Within the literature on Complexity Theory and Adaptive Leadership Theory there is no research specifically within the education sector or more specifically, the international school sector.
2. Gap related to context: Within the SLO literature, the evidence base is not from within an international school context.
3. Potential ambiguity: Within the literature, there is a potential ambiguity around the relationship between the SLO concept and adaptivity.

Through a focus on the research questions, this study will explore the relevance of adaptivity and the SLO concept within the international school sector. The research will also explore the relationship between adaptivity and the SLO concept.

The next chapter will outline the methodological basis for undertaking this study including the methods for data collection and data analysis.

Chapter 3 - Research Design

This chapter outlines the research methodology, the methods and the ethical considerations which underpin this study. The design of this study fits within a qualitative paradigm - with beliefs, assumptions, values and practices (Braun & Clarke, 2013) that provide an overarching framework.

Methodology

Methodology is defined as:

The strategy, plan of action, process or design lying behind the choice and use of particular methods and linking the choice and use of methods to the desired outcome. (Crotty, 1998, p.3)

In designing this research, decisions have been rooted within a constructivist paradigm. Guba and Lincoln (1989) assert that we can think of a paradigm as a basic set of beliefs, a set of assumptions we are willing to make which serve as the touchstone in guiding our activities. To further understand this, it is necessary to understand the ontological and epistemological groundings. Ontology concerns the nature of reality and is defined as:

The world views and assumptions in which researchers operate in their search for new knowledge. (Schwandt, 2007, p.190)

Within a constructivist paradigm and embedded in this study is a view that multiple realities exist and that reality as we know it is constructed intersubjectively through the meanings and understandings developed socially and experientially (Guba & Lincoln, 1994). This is what Guba and Lincoln term a 'relativist ontology' which they contrast with a 'realist ontology'. The table below summarises these two ontological positions (Guba & Lincoln, 1989, p.84).

A realist ontology	A relativist ontology
<p>“There exists a single reality that is independent of any observer’s interest in it and which operates according to immutable natural laws, many of which can take cause-effect form. Truth is defined as that set of statements that is isomorphic to reality.”</p>	<p>“There exist multiple, socially constructed realities unguided by any natural laws, causal or otherwise. ‘Truth’ is defined as the best informed (amount and quality of information) and most sophisticated (power with which the information is understood and used) construction on which there is consensus (although there may be several constructions extant that simultaneously meet that criterion).”</p>

Table 3.1 - Contrasting conceptions of ontology - Guba and Lincoln (1989, p.84)

Within a constructivist paradigm, the epistemological (theory of knowledge) view is that people construct their own understanding of reality based on interaction with others and the environment around them and that this draws on the historic and cultural norms that operate in individual’s lives (Crotty, 1998; Denzin & Lincoln, 2000; Schwandt, 2007). As with ontology, Guba and Lincoln outline two contrasting conceptions of epistemology and these are detailed in the table below (1989, p.84).

An objectivist epistemology	A subjectivist epistemology
<p>“It is possible (indeed mandatory) for an observer to exteriorise the phenomenon studied, remaining detached and distant from it, and excluding any value considerations from influencing it.”</p>	<p>“An enquirer and the enquired-into are interlocked in such a way that the findings of an investigation are the literal creation of the enquiry process.”</p>

Table 3.2 - Contrasting conceptions of epistemology - Guba and Lincoln (1989, p.84)

The subjectivist epistemology which guides this study means that it is the role of the researcher to understand the multiple constructions of meaning and knowledge shared by participants. These are often termed the ‘lived experience’ (Boylorn, 2008) of participants based on the view that people are self-interpreting beings (Taylor, 1985). As such, the research will be analysing the way in which people are making sense of their lived experience situated within a specific context.

Drawing on a range of sources (Crotty, 1998; Denzin & Lincoln, 2000; Schwandt, 2003; Denzin & Lincoln, 2011; Robson & McCarten, 2015; Yin, 2016; Lincoln, Lynham & Guba, 2018), I summarise the methodological approach adopted in the table below.

Ontology	A view that multiple realities are constructed through lived experience and interaction with others
Epistemology	A view that knowledge is constructed between the researcher and the participants and shaped by individual experience

Table 3.3 - Summary of methodological positioning of this research

Research purpose

The purpose of this research is to:

- explore how international educational leaders think about the organisation and leadership when considering the future of international schools, with reference to adaptive leadership; and
- explore whether the SLO concept has relevance within an international school context

Research questions

The following research questions guide this research:

- RQ1 Do educational leaders recognise the characteristics of adaptive organisations? If so, how do they define the characteristics in an international school context?
- RQ2 How do educational leaders define the leadership required to build adaptive capacity in an international school context?
- RQ3 How do educational leaders view adaptivity in relation to change and what are the barriers to developing adaptivity?
- RQ4 How relevant is the SLO model to schools operating internationally?
- RQ5 Where does the SLO model sit in relation to adaptivity in an international school context?
- RQ6 What are the implications for future leadership behaviours for educational leaders in an international school context?

Research design

An inductive approach was adopted with a flexible/emergent research design. The designed research plan was used as a guide but with a view that flexibility was required in executing the research. This is an approach reinforced by Yin:

Research designs are logical blueprints. The designs serve as logical plans, not the logistics plan. (Yin, 2016, p.83)

This flexible design, drawing on learning from qualitative researchers was based on an open and enquiring approach, a focus on listening and hearing the participant voice, sensitivity to and interest in context, and a responsiveness to contradictory evidence (Robson & McCarten, 2015).

Participants

Purposive or strategic sampling was used to select participants for this study with the aim that the chosen participants were likely to yield the most relevant and plentiful data (Yin, 2016). The criteria for participant choice are outlined below. In identifying participants there was an intention to target individuals that would give the broadest range of information and perspectives (Kuzel, 1992) within this small scale study. This approach is supported by Oberle (2002) who notes that the samples used in qualitative research may not be inclusive but that lack of inclusiveness should not detract from the value of the research, especially as generalisability of findings is often not a concern within the qualitative research tradition.

Two groups of participants were sampled under the umbrella term: 'educational leader'. The following definitions were used:

- 'School leader': Individual with responsibility for leadership of an international school (commonly referred to as Headteacher or Principal)
- 'System leader': Individual with responsibility for oversight of a group of international schools (commonly referred to as Superintendent or Director of Education)

Of the total participant sample, there was a 50% gender split. For the purpose of data analysis, each participant was categorised using the following descriptors: 'male/female' and 'school leader/system leader'. I summarise details of the participants in the table below.

Participant	Designation	Gender
A	School leader	Female
B	School leader	Female
C	School leader	Male
D	School leader	Female
E	School leader	Female
F	School leader	Male
G	System leader	Male
H	System leader	Male
I	System leader	Female
J	System leader	Male
K	System leader	Female
L	System leader	Male

Table 3.4 - Participant detail

The following criteria were applied in identifying and selecting participants:

1. Language: Only participants with a strong working use of English were included in the study, given that the intention was to collect rich data in which nuance matters. Based on previous experience of small-scale studies, this is challenging to achieve when working through a translator. For clarity, this does not mean that participants had to be native English speakers.
2. Experience: To be eligible each participant must have had at least three years' experience in their role as a school or system leader. The rationale for this is that for many leaders new in role, they will be adjusting to their role whereas those that have been in role at least three years will probably have acclimatised and be giving more thought to future direction and be able to cite specific examples which relate to their period of leadership.

3. School type: Each school leader was leading an international school at the time of being interviewed. The rationale for this was to situate the study within international school context. As cited within Chapter 1, there is no accepted definition for an 'international school'. Within the school group where data collection took place some schools are deemed international and some serve the domestic market. Consideration was given to sample from both contexts, but reflection led to a decision to be more focused within the scope of the study. This decision was guided by the literature gap with no specific studies in the context of international schools in the area of this research. The schools chosen all offer the International Baccalaureate, serve a community of learners from diverse ethnic and cultural backgrounds and designate themselves as 'international'.

A consistent invite for participation in the research was used and this can be found in Appendix 11. When candidates had indicated their willingness to be involved, they were each asked to give written consent and the consent form can be found in Appendix 12.

Method of data collection

Methods are defined as:

The techniques or procedures used to gather and analyse data related to a research question. (Crotty, 1998, p.3)

Semi-structured interviews were utilised to collect the data. When choosing an appropriate method for the study the choice was based on the following:

- the desire to study a small, purposive sample, in depth;
- the desire to analyse 'thick descriptions' (Geertz, 1973); and
- an acknowledgement that context is key and that the participant is the expert based on their perception and understanding of their lived experience.

Thick descriptions (ibid) take account of and value the context of the data. The approach to rich qualitative data is summarised by Kvale who draws on the metaphor of a traveller:

The traveller wanders along with the local inhabitants, asks questions that lead the subjects to tell their own stories of their lived world, and converses with them in the original Latin meaning of conversation as 'wandering together with'. (Kvale, 1996, p.4)

The intentional structure of the semi-structured interview method deployed in this study was, in many ways, 'relaxed' compared to some other forms of data collection. Thus allowing the participant to lead the researcher through the use of open-ended questions and prompts. As a result of this flexibility it can be seen from the transcripts that the questions were dealt with in a different order in each transcript, taking the lead from each participant. This flexibility of approach allowed for questions and prompts to be adjusted taking account of content from each participant. Within this data collection process there was a need to consider the issue of positionality which links also to being an insider researcher with the attendant ethical considerations (explored later in this chapter). All interviews, but especially those in one's own organisation, require careful consideration of the intended relationship with the participants. Le Voi (2000) argues that qualitative work necessarily entails involvement and that it cannot be done in an objective, neutral and/or disengaged manner if it is to yield any worthwhile insight into the participant's world.

In preparation for the data collection interviews a set of indicative questions were devised and can be found in Appendix 13. Twelve interviews were planned. Eleven interviews were conducted and details of interview duration and word length can be found in Appendices 14 and 15. One participant withdrew prior to the interview, linked to in-school issues related to COVID-19. The interviews were conducted online and were audio recorded with only the researcher and the participant present. Based on the transcripts from the interviews I summarise the interview data in the table below.

Number of participants	11
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Total interview time	7 hours, 33 minutes, 11 seconds
Total transcript word count	60,519 words
Total word count - interviewer	7,811
Total word count - participants	52,708

Table 3.5 - Details of interview transcripts

Based on this summary, the majority of the 'air space' in interviews was taken by participants, 87 per cent. This is in keeping with the methodology outlined above with participants being the expert in the conversation.

In summary, this study exemplifies a qualitative paradigm, meeting the core elements defined by Silverman (2000):

- use of qualitative data not reducible to numbers
- naturally occurring data methods
- interest in meaning rather than report and measures
- use of inductive approach and design
- rejection of idea of objective scientist
- recognition that researchers bring their subjectivity into the research process

Methods of data analysis

The approach to data analysis in this study draws on established work in the qualitative tradition. This was mainly in relation to Thematic Analysis, specifically Reflexive Thematic Analysis, for RQs 1, 2, 3, 5 and 6. For RQ4, a priori codes were used and this will be explained more fully below.

There is a deeply held belief that the data collected is rich in content and will help to understand more about the issues being explored with the intention of generating new understandings (Miles, Huberman & Saldana, 2020). This is data grounded in human experience (Sandelowski, 2004). The approach taken to data analysis in this study is iterative in that it "involves an ongoing dialogue between data and ideas" (Coffey, 2018, p.25). Support for this iterative approach is given by Male:

Typically in qualitative research, data analysis effectively begins at the same time as data collection. (Male, 2016a, p.178)

Miles et al (2020) suggest that it is impossible to ever be truly objective and that our findings can only ever be our interpretations. Miles et al (ibid) are clear in their assertion that the researcher's personal values, attitudes and beliefs cannot be entirely avoided. Indeed, it can be argued that the opposite is the case, that the researcher becomes the instrument for analysis and that their individual attributes and perspective have a direct influence on the research process (Ward-Schofield, 1993; Whittlemore, Chase & Mandle, 2001; Finlay, 2002; Starks & Trinidad, 2007). This issue is compounded by the fact that there is no guarantee that the participants are entirely clear of their own views when they share thoughts via data collection interviews. This is well acknowledged with the notion of the double hermeneutic - or dual interpretation - the participants are interpreting and making sense and the researcher is in-turn interpreting and making sense.

The participants are trying to make sense of their world; the researcher is trying to make sense of the participants making sense of their world. (Smith & Osborn, 2008, p.53)

The qualitative data collected in this study was analysed in two different ways following established qualitative analysis techniques and the use of codes (Robson & McCarten, 2015; Male, 2016a; Silverman, 2017). It is strongly acknowledged that the act of coding is analysis in itself as it involves the interpretation of meaning (Miles, Huberman & Saldana, 2020).

Inductive coding

A manual approach to emergent or inductive coding (Saldana, 2015) was used for thematic data analysis related to RQs 1, 2, 3, 5 and 6. Thematic Analysis is a method of identifying, analysing and reporting patterns or themes within data (Braun & Clarke, 2006). This remains a contested term, seen as poorly demarcated (Boyatzis, 1998; Roulston, 2001). Braun and Clarke (ibid) have become influential authors in this area (Braun & Clarke, 2006; Braun & Clarke, 2014; Braun, Clarke & Hayfield, 2019). There has been historic confusion regarding whether Thematic Analysis is a general tool or a method. The latter position is strongly argued for by Braun and Clarke, who view Thematic Analysis as a method within its own right noting

that it can be used across the epistemological range (Braun & Clarke, 2006). Boyatzis (1998) provides opposition, viewing Thematic Analysis as a tool as opposed to a method, a view supported by Ryan and Bernard (2000). Through a range of work from Braun and Clarke (2006, 2013, 2014, 2019, 2021), they claim Thematic Analysis as a rigorous method that is as much about process as outcome. The reason this is cited as important is that by ensuring rigour of process means that others can follow the thought process and, if desired, repeat the same process with the data - supporting the notion of replicability. In recent writing, Braun and Clarke (2019) refer specifically to 'Reflexive Thematic Analysis', asserting:

Reflexive Thematic Analysis procedures reflect the values of a qualitative paradigm, centring researcher subjectivity, organic and recursive coding processes, and the importance of deep reflection on, and engagement with, data. (Braun & Clarke, 2019, p.593)

This reflexive approach requires ongoing back and forth with the data, stressing that it is non-linear and inherently reflexive. The quotation below captures this.

The coding process requires a continual bending back on oneself - questioning and querying the assumptions we are making in interpreting and coding the data. (Braun & Clarke, 2019, p.594)

This 'bending back' underscores the high degree of reflexivity embedded in the method which has been central to the analysis of data in this study. The approach to thematic analysis is one of an active analytic process as opposed to a passive process, often cited by researchers as involving 'themes emerging or being discovered' (Taylor & Ussher, 2001; Clarke, 2019a). Ultimately it is an active decision on the part of the researcher in making intentional choices about which themes to construct and prioritise, a view supported by Clarke (2019b). This approach was chosen for the active responsibility it firmly places on the researcher to consider how analysis fits within the methodological framework of the study, and how to report transparently. Drawing on the work of Braun and Clarke (2006) I outline the steps used to analyse data relating to RQs 1, 2, 3, 5 and 6 in the table below.

The phases outlined below are not linear but rather a set of overlapping phases which were worked through, back and forth, with constant reflection to reach a position of reportable themes.

Phase	Steps taken in data analysis
Phase 1: Familiarisation with data	<ul style="list-style-type: none"> ▪ Read and re-read transcripts ▪ Listen to audio transcripts ▪ Annotate written transcripts with potential codes/themes (with as many codes as possible)
Phase 2: Generating initial codes	<ul style="list-style-type: none"> ▪ Re-read transcripts with knowledge of emergent codes, searched for connections or repetition ▪ Compare emerging codes back to notes written following each interview in reflective journal
Phase 3: Searching for themes	<ul style="list-style-type: none"> ▪ Sort exercise with codes from phases 1-2 ▪ Group codes that have connection
Phase 4: Reviewing themes	<ul style="list-style-type: none"> ▪ Review the groupings from phase 3 ▪ Group some themes and discarded themes where codes are tenuous ▪ Refine themes and group component parts of each theme
Phase 5: Defining and naming theme	<ul style="list-style-type: none"> ▪ Confirm themes and provide name ▪ Annotate original transcripts with final themes
Phase 6: Producing the report	<ul style="list-style-type: none"> ▪ Use themes as basis for reporting in Chapter 4 and for drawing conclusions in Chapter 5

Table 3.6 - Phases in data analysis - adapted from the work of Braun and Clarke (2006)

Appendices 16, 17 and 18 provide examples of the data analysis outlined above.

A priori coding

Data relating to RQ4, linked to the traits of a SLO, were analysed using a priori codes drawing on the work of Kools and Stoll (2016). The forty-nine elements from the 2016 SLO model were used as codes for matching participant data. The example of this coding can be seen in Appendix 19.

Ethical considerations

Ethical issues were addressed in line with the BERA guidelines (2018) with an express intent to keep participants safe from harm and to build trust in order to ensure trustworthy outcomes. There was an intentional duty of care for participants that was planned for and acted on throughout (Glenn, 2000). This study was granted ethical approval by the primary and secondary supervisors and registered with UCL with the following data protection number: Z6364106/2020/06/161.

Participation in the study was voluntary with the opportunity to withdraw at any point. Participants were given a clear explanation as to the way in which data would be processed, analysed and used. Given the context of working during the COVID-19 pandemic, all interviews took place online and an audio recording produced.

Each audio recording was transcribed by a third-party provider to ensure an independence to the transcription process. The style of transcription utilised was 'intelligent verbatim' (Fagan, 2020) omitting any minor utterances or fillers. Each page was time stamped for ease of reference. Each participant was given their transcript and asked to read and confirm that they were comfortable for the content to be utilised as part of the study. This was a critical step in the verification process of the evidence base and countered for any potential bias from the researcher. This step allowed each participant to benefit from reflection time and to add or redact content if they wish. All participants confirmed permission for their transcript to be used and no amendments or redactions were made.

For the purposes of this study, none of the participants were classified as vulnerable where there could be a possible likelihood of greater risk of harm. Based on advice from Robson and McCarten (2015) the following measures were intentionally and proactively planned for as a basis for engaging with participants in this study:

- Each participant chose the time for the interview to ensure that it was a time that worked for them
- Data from this study has not been and will not be shared within anyone internal to the organisation where data collection took place and this was explicitly stated as part of the introduction to the interviews
- Participants were told clearly how the collected data was intended to be used, i.e., solely for purposes of academic study and not used in any organisational sense
- Participants were informed that any reported data will be anonymised from the individual and, where possible, from the context
- The style of the interview was with 'interviewer as listener'. Whilst set themes were covered, the participants took the lead with the interviewer using probing interjections rather than taking a significant lead. This was an intentional style to reinforce that the power dynamic in the interview rested with the participant.

Overall, the climate of the interviews was designed and conducted to be collaborative and participatory (Oakley, 1981).

Positionality and issue of being an insider researcher

Positionality reflects the position the researcher chooses or ends up adopting within any given study. It is posited that:

The positionality that researchers bring to their work and the personal experiences through which positionality is shaped, may influence their choice processes. (Foote & Bartell Gau, 2011, p.46).

Positionality refers not simply to the ultimate research outcome or findings but also the research process (England, 1994). At the heart of this is the need to adopt an ongoing reflexive approach. Cohen et al define reflexivity as:

The concept that researchers should acknowledge and disclose their own selves in the research, seeking to understand their part in it or influence on the research. (Cohen, Manion & Morrison, 2018, p.225)

The positionality of a researcher is connected to the concept of situatedness with its origins in the work of Vygotsky (1962). This was developed in the learning context by Lave and Wenger (1991) and can be seen as the development of an understanding of the social and cultural influences at play. Costley et al define this as the interplay between the agent (the researcher), the situation (the particular set of circumstances) and the context (where, when and background) (Costley, Elliott & Gibbs, 2014). Through reflection I will evidence below how I have continually attempted to build these considerations into my thinking and research practice.

As part of the consideration within academia for ethical strategies for research, alongside the emergence of far more 'within-organisation' research, the issue of being an insider researcher is increasingly considered. Whilst there are a range of views presented with criteria for consideration, Simons and Usher (2000) assert that ethical judgements in educational research cannot be generalised but need to be made in relation to the context in which the study takes place. This makes sense given the array of organisation types within the education sector.

There is some critique of the process of gaining ethical approval in academia (Tierney & Corwin, 2007; Hammersley, 2009) with the suggestion that the process in itself can lead to a 'tick box' exercise and in many cases miss the real ethical issues of being an insider researcher (Halse & Honey, 2007). There are a range of issues connected to being an insider, including being embedded in a shared setting (Smyth & Holian, 2008) and being emotionally connected to participants (Sikes, 2008). In responding to criticisms of ethical approval and drawing on the work of Tolich (2004), Floyd and Arthur (2012, p.2) define two types of ethical engagement to consider and these are outlined in the table below.

External ethical engagement	Internal ethical engagement
“Superficial, easily identifiable ethical issues... which insider researchers attend to by submitting their application for ethical approval.”	“The deeper ethical level and moral dilemmas that insider researchers have to deal with once in the field: the below-surface, murky issues that arise during and after the research process linked to ongoing personal and professional relationships with participants, insider knowledge, conflating professional and researcher roles, and anonymity.”

Table 3.7 - *Contrasting conceptions of ethical engagement - Floyd and Arthur (2012, p.2)*

Floyd and Arthur (2012) identify four distinct considerations in relation to internal ethical engagement. Each will be dealt with in turn and addressed within the context of this study.

1. Ongoing relationships may be a potential problem for insider researchers in that there is a high likelihood that they will not walk away following data collection. Drake and Heath (2008) note that insider researchers cannot ‘unhear’ what they have been told. Mercer (2007) cautions that this can, if not managed, lead to distortion in evidence. Within this study this was addressed by asking each participant to verify the accuracy of the written transcript to confirm that it was an accurate representation of their thoughts, following a period of reflection and with an opportunity for participants to redact and/or amend content.

2. The second consideration is the detailed knowledge that the researcher has of the organisation. There are distinct advantages here in that the knowledge of the context may prompt the researcher to dig more deeply. However, the same knowledge could also lead the researcher to short-cut or make assumptions. This was not a high-tariff issue in this study as the research was less operational and more future and conceptually focused. This was proactively considered with the intention of ensuring that this did not steer the conversation. The question schedule was designed to be open ended. Evidence from interview transcripts

demonstrate instances when the participants steered the discussion and went back to re-visit earlier points.

3. The third consideration relates to the potential clash between the role of practitioner versus that of researcher. A practitioner is actively engaged in an organisation whereas a researcher needs to stand back and survey the evidence. Drake (2010) compares this to the difference between building sandcastles and surveying a coastal map. There is the possibility that the content of the research could actively conflict with an operational aspect of a role in the organisation. Within the context of this research this was avoided on two counts: firstly, I did not line-manage any of the participants to avoid any direct conflict of research versus accountability; secondly the topic of the research is not so closely tied to operational responsibility in this organisation and is seen more as 'interesting to discuss' rather than about current day to day issues.
4. The final consideration links to anonymity, or more importantly, the challenge of securing anonymity in small scale studies. For the purposes of this study I assured participants that whilst no individual would be identifiable from the research, it would be highly likely that the organisation would be identifiable simply because of the range of schools included. I based this on the view that rarely is it possible to anonymise an organisation or institution (Smyth & Holian, 2008; Trowler, 2011). With this as a given, I placed more emphasis on the anonymity of the participants. All interviews were redacted of any detail that could identify an individual participant and each participant was referred to by letter. No participant was referred to by any detail which could give a clue to identification, including reference to location.

As a senior leader in the organisation where data collection took place there are bound to be potential inherent problems of conducting research internally and the associated power dynamics. I was guided by the work of Rubin and Rubin (2005) who suggest that pretending that no biases exist is not an

option but rather to proactively examine any preconceptions and address. In order to consider my positionality, including power dynamic, I utilised the model from Savin-Baden and Howell-Major (2013). In their work they outline three aspects for researchers to consider:

1. Researchers should situate themselves in relation to the subject
2. Researchers should situate themselves in relation to the participants
3. Researchers should situate themselves in relation to the research context and research process

In relation to the subject matter of this thesis: This is clearly an area in which I have a great deal of interest and one that matters in relation to my occupational role. I have used some of the literature base in relation to my professional role, especially the literature on SLOs (Kools & Stoll, 2016). From my own work context, I believe that it can be useful as a basis for schools to review their approach to building a learning culture. For this reason, I was acutely aware that I needed to adopt a dispassionate approach to the data collection and data analysis process. The value of this research will be to discern how well educational leaders understand the issues connected to leading an organisation with the capacity to be adaptive to inform the strategic intent of the organisation.

In relation to the participants in this research: I have an existing working relationship with each of the participants, having known most of them for over three years. This meant that I understood their working context. None of the participants reported directly to me. Despite this lack of reporting accountability I acknowledge that my position as a senior leader needed to be considered. It should also be noted that I have worked previously in the role of both school principal and system leader, although not in this organisation. This means that I had an appreciation of the work context of each participant. Whilst this could have been positive, it may also have meant that there was a danger that I used my own knowledge to add to or distort their evidence. I sought to remain aware of this and endeavoured to explicitly acknowledge this throughout the data collection and data analysis process. I

proactively considered the issue of power dynamic and included detail of this thinking in the ethics section above.

In relation to the research context and process: I was aiming to use this research to help inform the future strategic intent for the organisation. Whilst hugely interested in this approach, I worked intentionally to adopt an open mind so as not to steer or influence the evidence. My personal preference is to adopt a qualitative approach that honours the voice of the participants, hence the chosen methodological stance and structure of the interviews. Bringing together this range of thoughts about positionality, Maykut and Morehouse offer:

The qualitative researcher's perspective is a paradoxical one: it is to be acutely tuned-in to the experiences and meaning systems of others - to indwell - and at the same time to be aware of how one's own biases and preconceptions may be influencing what one is trying to understand. (Maykut & Morehouse, 1994, p.123)

Whilst some authors suggest that researchers should be aiming for a neutral approach, there is a view within much of the literature that this is almost impossible. Rose (1985) suggests that there is no neutrality but only greater or lesser awareness of one's biases. The quotation below summarises the intentional approach I have sought to adopt throughout.

The core ingredient is not insider or outsider status but the ability to be open, authentic, honest, deeply interested in the experience of one's research participants and committed to accurately and adequately representing their experience. (Corbin-Dwyer & Buckle, 2009, p.59)

Indeed, these authors suggest that there is a third space between insider and outsider, a space for the researcher. They define this space as:

A space of paradox, ambiguity, and ambivalence, as well as conjunction and disjunction. (Corbin-Dwyer & Buckle, 2009, p.60)

On reflection throughout this research process, I realise that I became comfortable occupying this third space.

Validity and reliability

The issues of validity and reliability are important to explore in any academic research and they require specific attention in the context of a qualitative study as the traditional conceptions used in a positivist paradigm cannot be applied in the same manner (Guba & Lincoln, 1989; Bryman, 2012), noting that the terrain remains contested (Sparkes, 2001). Indeed, Maxwell (1992) asserts that traditional conceptions are simply not fit for purpose in a qualitative study. The issues of applying traditional methods for validity and reliability are well rehearsed (LeCompte & Goetz, 1982; Smith, 2003; Bryman, 2012).

This study adopts an ontological stance that assumes the reality as perceived by participants is constructed intersubjectively through the meanings and understandings developed through their individual experience and cognition, i.e. a constructivist stance. In turn this flows into an epistemological viewpoint that people construct their own understanding of reality and that we construct meaning based on our interactions with our surroundings (Guba & Lincoln, 1994). As a result, we need to consider tests of validity within this methodological frame of reference. For the basis of this study, the benchmark of validity has been drawn from several sources (Maxwell, 1992; Guba & Lincoln, 1994; Yardley, 2000; Yardley, 2017; Lincoln, Lynham & Guba, 2018). These authors challenge the traditional notion of validity and suggest alternatives which are fit for context rather than aiming to work from a positivist position and retrofit to a qualitative perspective. Lincoln and Guba (1985) took traditionally positivist notions and suggest replacements which they assert are more closely matched to a qualitative research context. I summarise these in the table below.

Traditional concept suitability for positivist research		Suggested replacements suitable for qualitative research
Internal validity	→	Credibility
External validity	→	Transferability
Reliability	→	Dependability
Objectivity	→	Confirmability

Table 3.8 - Alternative conceptions for validity and reliability - Lincoln and Guba (1985)

Lincoln and Guba (ibid) posit that when these criteria are met in full, the research can be deemed authentic and trustworthy. To assert that this research is both authentic and trustworthy I explore (below) each of the four contributor factors from the table above.

Credibility: refers to the extent to which the results are credible from the standpoint of the participant. Within this study the following measures were in place to support the credibility of the research:

- Allow a good amount of time for interviews to build rapport and trust (acknowledge that all participants were previously known to the researcher)
- Use participants 'in context', i.e. ask participants to draw on their personal work as opposed to separating them from their context.
- Undertake a range of interviews with different participants to look for themes and consistency
- Require participants to verify their transcripts to ensure that they were comfortable with their contributions prior to analysis

Transferability: refers to the extent to which the results can be transferred to other contexts or settings. Yin states that:

Transferability involves a slightly more modest claim than might occur with analytic generalisation, as transferability readily acknowledges the uniqueness of the local conditions in an individual qualitative study. (Yin, 2016, p.106)

Within this study and from the outset, there was no desire to generalise. This was based on two main reasons: (i) given the methodological framework it is strongly believed that the context is particularistic and as a result, it would be incorrect to generalise; and (ii) the sample size is small. The intention was to analyse rich or 'thick' data (Geertz, 1973). It is, however, hoped that the findings are interesting and relevant for others in similar contexts to reflect on in a transferable manner.

Dependability: refers to the extent to which the same results can be obtained by independent investigation. Within the context of doctorate study and the

iterative nature of involvement with two supervisors leads to ongoing scrutiny which supports the development of dependability in the study. Earlier in this section the approach to analysis was outlined which allows for replicability if required.

Confirmability: refers to the extent to which results can be corroborated or confirmed by others. This thesis has been drafted in such a way that others can follow the logic and procedure by which it has been conducted, allowing for external scrutiny. I have aimed throughout each stage of the research process to adopt a reflexive stance, always questioning the approach, preconceptions and next steps, utilising supervisors as critical friends and keeping a reflective journal.

As a summary to considering validity and reliability, Yin (2016) explores this concept, noting:

A credible study is one that provides assurance that you have properly collected and interpreted the data, so that the findings and conclusions accurately reflect and represent the world that was studied. (Yin, 2016, p.83)

It is asserted that through a range of proactive measures so far described, this study can be viewed as credible. As a summarising note on validity, Hammersley asserts that in qualitative research, an account is valid:

If it represents accurately those factors of the phenomena that it is intended to describe, explain or theorise. (Hammersley, 1987, p.69)

Reporting data

The outcome of data analysis is reported in Chapter Four with the intention of 'telling the story' of the data in relation to the research questions outlined in Chapter Three. Consideration has been given in relation to the most appropriate and meaningful way to present the data, noting:

Considerable pressure is often applied to qualitative researchers to account for the validity of findings by reporting numbers. (Pyett, 2003, p.1174)

Within the data analysis, the number of participants responding in relation to the themes will not routinely be included. The rationale for this is aligned with the chosen method of analysis, Reflexive Thematic Analysis. This is a view supported by the following two authors:

Counting the responses misses the point of qualitative research. (Pyett, 2003, p.1174)

The rationale for conducting in-depth interviews is that people involved in a phenomenon may have insights that would not otherwise be available to the researcher, and it is the quality of the insight that is important, rather than the number of respondents that share it. (Wainwright, 1997, p.11)

In considering the issue of how to report data as an outcome of Reflexive Thematic Analysis, Braun and Clark (2021) identify four arguments against trying to 'justify' data with percentages.

1. It reflects an anxiety about the validity of qualitative research, implying that the results are not real without numbers.
2. That frequency does not determine value within qualitative data.
3. Whether something is insightful or important for answering a research question is not necessarily determined by the number of people it can be credited to.
4. The data collected from interviews are fluid and flexible. As such, there is no way of interpreting what is not reported in qualitative data.

The outcome from Braun and Clarke (ibid) is that reporting numerical proportions as an outcome of Reflexive Thematic Analysis may be deceptive and disingenuous.

Chapter Four reports the outcomes from analysing the data collected from participants.

Chapter 4 - Data Analysis

Structure of chapter

There were numerous ways to structure the data analysis from this study but I determined the data analysis would be aligned with the research questions as outlined in Chapter Three. This structure will continue in Chapter Five in discussing the data and drawing conclusions.

The overarching purpose of the participant interviews was to explore and understand more about how educational leaders think about adaptive organisations and adaptive leadership in navigating the future and to explore the relevance of the SLO model for international schools. Except for providing a briefing note to participants, no other preparation was undertaken prior to the interviews with the intention of eliciting unbiased data. The contextual background to each participant and interview can be found in Appendix 14. Throughout this thesis participants are identified by an assigned letter to provide anonymity with extracts from the participant transcripts used for illustrative purposes to provide an authentic voice. Where extracts are used the reference signifies the participant and the page number from the annotated transcript (e.g., A7 = Participant A, Page 7) allowing for verifiability. Full copies of the audio recordings and transcripts are stored securely in line with UCL ethical approval guidelines. Where there is a need to redact content to protect participant or school anonymity, [x] has been inserted into the text. In keeping with the methodological basis for this research the focus in this chapter is to 'tell the story' based on analysis of participant interviews, seeking to eliminate potential bias, wherever possible, and provide authentic and trustworthy data. As stated in Chapter Three, each participant was categorised as 'male/female' and as 'school leader/system leader' to explore whether these categorisations yielded any difference in outcome. Based on the analysis conducted, there were no discernible difference seen in the emergent coding on either category. As a result, the data was treated as one research population.

RQ1 Adaptive organisations

RQ1 asked: Do educational leaders recognise the characteristics of adaptive organisations? If so, how do they define the characteristics in an international school context?

Following data familiarisation, data coding, theme development, revision and theme allocation the choice was made to identify three themes relating to this research question. For each theme, several components were identified that contributed to the overarching theme. Consideration was given as to whether to incorporate these components as sub-themes but I determined not to do this. This decision was taken as in each case the components are part of a greater whole, falling under the umbrella of the major theme and this decision aligns with guidance on the use of sub-themes in Reflexive Thematic Analysis (Braun & Clarke, 2006; Braun & Clarke, 2013; Braun & Clarke, 2019; Braun & Clarke, 2021). I identify the three themes and associated components in the table below.

Theme	Components of each theme
1. Openness	<ul style="list-style-type: none"> ▪ Outward looking ▪ Stakeholder engagement
2. Identity	<ul style="list-style-type: none"> ▪ Organisational self-evaluation ▪ Direction ▪ Strategic thinking
3. Empower	<ul style="list-style-type: none"> ▪ Capacity building ▪ Cultural change

Table 4.1 - Themes from data analysis defining the characteristics of an adaptive organisation

In the sections below, these themes and components are exemplified drawing on extracts from participant data.

Theme 1: Openness

This first theme of 'openness' reflects that data asserts that adaptive organisations are outward looking and proactively interrelating with the operating environment. This will be explored through two components.

- Outward looking
- Stakeholder engagement

Outward looking

This component was included by each participant with a strong sense that organisations that adapt and intentionally lead their destiny are outward looking, albeit framed differently by participants. There were repeated mentions from participants of adaptivity in relation to the external operating environment, typified by the following extract:

For me, adaptive means that we need to be consistently evaluating where we are in place and time, on our journey, relative to the environment that's around us. (A1)

Participants were clear both in what they said and how they framed their discussion of this component that this outward facing view is about looking beyond the immediate and closely linked to defining the strategic intent of the organisation, a concept defined in Chapter Two. Invariably, participants also talked of adaptive organisations utilising organisations that they connect with, for example an accreditation agency, proprietorial group or membership organisation; and that an adaptive organisation will take this input to analyse, synthesise and independently define their direction.

Adaptive is not just looking at our immediate place and time but looking at the signposts that are being flagged by agents or organisations we're connected to, but then looking well beyond them. So tapping into research that's been done by, for example, the OECD, and then really looking at some of those pieces and saying, 'What are we seeing coming through from these bodies of research that can enable us to ask critical questions about what we're delivering within our context?' And then, what can we do within our context to be able to be proactive in terms of those trends. (A2)

It was common for participants to cite that they draw on a range of data and evidence sources to inform planning, both educational and non-educational, macro and micro; defined as 'wide reaching knowledge about external forces' (B3).

We have to be able to look at cues and trends that are happening within society, whether those are the economic trends, political trends or social trends, and look at how those trends or challenges that exist in society have an impact on what we're doing within our school context. (A1)

Other examples referred to utilising sources of information relevant to international schools: 'external sources' (B1/J1), 'macro-economic and governmental trends' (J2), 'educational accreditation' (D1), 'political landscape and national agenda' (G1/I1) and 'research' (A1). The essence of this theme from each interview was that adaptive international schools are outward and forward looking, alert, draw on a range of evidence and consistently evaluate their place in relation to this. All participants place this external focus within a proactive mode, stating that adaptive schools build this external scanning into their routine work.

It's about looking outwards and saying, 'What is coming down the track? versus, 'Right, there's a new government directive saying I have to do this' or 'Every other school in my area is doing this, I'd better start doing it now'. I think the hallmark of [adaptive schools] are the ones where the school, the organisation - specifically the leaders - are much more aware of the shifting educational landscape, before it's shifting.' (C2)

This sense of being outward facing in relation to external sources was strong from all participants. In addition, there was a repeated view that adaptive schools also work beyond their own boundaries with other schools to be 'outward looking rather than inward' (e.g. A3/C4/J6) with the view that this is a reciprocal learning relationship which improves practice.

It's looking outside rather than looking inward. And it's making sure you do your self-evaluation within your school but you embrace the possibility to engage with schools outside your own system. So it's a much wider practice. It's a much bigger exercise. And I think it helps

have different perspectives from different organisations. So you're not limiting yourself to your own context. You are opening yourself up. (I3)

Stakeholder engagement

There was a strong and repeated view from participants that adaptive organisations are alert to, and listen closely to, a 'range of stakeholders' (A3/D1/J3), 'listen to the voice of the community' (G2) and 'work with others' (D1); using this information to evaluate their offer and stay attuned to the external environment. The interpretation of the term 'stakeholder' varied between participants with some seeing these as 'immediate stakeholders', e.g. students, parent staff; with others broadening this category to include external partners. It was neatly summed up by one participant in asking, 'Who is part of the conversation?' (A3). The extract below is chosen because it exemplifies the broadest view and summarises the range of views expressed.

I would look to see what processes were framed that supported faculty and other wider staff that we have within a school organisation, to take action. I would look to see to what extent our student population and our parent population were a part of the conversations. I would look to see to what extent the school is connected with the external community, to what extent the school is connecting or interacting with the external community to be able to better understand the landscape and the environment that they're part of. I would look for partnerships that the school had developed, where potentially those partnerships are enabling or empowering the school to be able to look at different ways or different approaches. (A3)

Whilst valued in an overall sense, this aspect was cautioned by one participant who warned that this community voice must be balanced with a range of external views and evidence.

I think that adaptive organisations see beyond the horizon... to be able to see beyond what perhaps their immediate stakeholders are able to see for themselves. So, Henry Ford - 'If I'd asked my customers what they wanted, it would have been a faster horse'. (H2)

The essence of this theme, based on interview data, is that adaptive schools look beyond their boundaries and actively utilise a range of sources of information to inform their intent when considering the future.

Theme 2: Identity

The second theme of 'identity' reflects that data assert that adaptive organisations have a clear sense of identity. This will be explored through three components.

- Organisational self-evaluation
- Direction
- Strategic thinking

Organisational self-evaluation

Throughout all participant interviews importance was assigned to the quality and need for accurate self-evaluation by organisations. This sense of being reflexive was viewed as integral to an organisation being responsible for, and intentional about, steering its future development.

I would say [an adaptive school is] a school that's constantly reflecting and going through a self-evaluation process; constantly questioning whether the decisions that are made around pedagogy and desired academic outcomes are the right ones for the children and will help them in the future. (I1)

I think that an [adaptive] school is knowledgeable and reflective with really strong self-evaluation so they know that they are making decisions based on knowing themselves, not based on what they thought might be a good idea at the time, so it's driven by evidence. (G3)

This view that self-evaluation is critical was unpicked further by participants, often referring to a three-part model: looking back, evaluating the present and looking forward, as demonstrated in the following contribution.

I guess it's all about improvement, isn't it? So if I think about where does improvement come from? Improvement comes one third from looking backwards and thinking, 'What have we done well? What did we not do so well? How do we learn from that and how does that feed the

improvement strategy? [Secondly] What are we currently doing now and what do ... the people we serve need now and in the near future? And then thinking a bit further afield – and this is where I think adaptive organisations do well. To see beyond the horizon with reasonable levels of predictability. (H1)

The notion of looking backwards was identified as a strong learning component of adaptive schools, using learning to inform next steps. There were repeated mentions of strong adaptivity being about learning from past and from mistakes as well as successes (I2). This is typified by the quotation below:

In those adaptive schools are strong leaders that do look forward, but that also learn from the past. Are able to predict or identify things that are worth noting, but also things that you should probably ignore and aren't worth a lot. (J3)

Given the nature of international schools and the frequent engagement with external accreditation, participants connected this with an ability to engage in robust self-evaluation - noting that in their experience this was an ongoing process as opposed to an event or moment in time. One participant (I2) called out the difference between an inspection as often viewed in England being a one-off, externally driven event, compared to an accreditation visit in an international school being a process of reflection and self-evaluation over time, driven by the school.

Direction

All participants spoke candidly about the need for a strong sense of direction that an organisation has and a sense of security about what it stands for. Participants articulated this in a range of ways dependent on the system they work within. Terms included: 'mission', 'vision', 'values', 'purpose' with a repeated view that as well as understanding its direction, an adaptive school needs to be able to relate its actions back to its vision and mission, for example:

[Adaptability is] being able to make changes within the organisation without losing sight of its mission and vision. (L1)

In different ways, participants recurrently defined the need for a strong purpose as being an anchor to facilitate adaptability, as illustrated by this contribution.

The ability to be agile and to adapt is important. But I think this is where schools and school organisations can get lost... So I think that's where, you know, if you've got a really strong values set, if you've got a really strong sense of identity as an organisation... but there's enough flexibility in there, I think you can be adaptive. (H2)

Within this component about a clarity of purpose were repeated mentions of values. Whilst participants were clear that intent and direction could change, the value base was typically viewed as more enduring. These values were seen as an anchor for decision making, over time.

Does a school have a really strong sense of identity? Does it know who it is, what it is, its position in the world, what it means to parents, what it means to students? For me that would come from its values... It would be hopeless if you had a school adapting every which way, left, right and centre, if it didn't have a strong anchor to its kind of core purpose. (H5)

This sense of purpose was cited as 'moral purpose'.

Really understanding deeply, as an organisation, what your moral purpose is [...] so that when you are framing conversations [...] it always comes back to, what's your vision, what's your mission, what are you trying to accomplish? (J4)

From such a strong sense of purpose, I was able to conclude participants linked this to clarity in terms of planning intentionally for next steps.

Strategic thinking

All participants referred to a long-term view, but used a range of terminology, including 'strategic plan', 'long term plan' and 'strategic intent'. There was sustained evidence from participant discussion that this was distinct from shorter term action planning, perceived as more technical in nature. Participants considered that this clarity of strategic intent was the essence of

steering the future direction of the organisation, utilising a range of inputs, for example:

You would hope that they would be good at strategic thinking, so not 'What can we do in the next 6 months?', but 'How can we get to that point over there in the next few years and what sort of measures can we put in place to make sure any adaptational change goes smoothly and is deep running and goes right through the whole organisation?' (B3)

Participants linked this notion of having strategic intent to the earlier theme of reflexivity with the view that strategy is only impactful if it is reviewed and constantly evaluated for impact as typified in the extract below:

I guess they would have to be pretty reflective because there's no point in adapting to something or making changes if it's not working and you don't know its impact; so you would have to be quite a reflective organisation and be open and good at asking questions and good at listening. (B4)

The essence of this theme, based on interview data, is that adaptive schools have a strong sense of identity and that this is informed through robust and accurate self-evaluation which takes account of evidence over time, that the school's explicitly stated direction is known and understood by the community and that the school actively engages in considering its strategic intent to define future direction.

Theme 3: Empower

The third theme 'empower' reflects that data asserts that adaptive organisations have a recognisable culture of empowerment. This will be explored through two components.

- Capacity building
- Cultural change

Capacity building

Repeatedly, participants were clear that adaptive organisations have a strong focus on building capacity. This component is closely connected to the leadership component of collective responsibility (explored later in this chapter). The two examples below, exemplify this viewpoint.

Great leaders are sat on people's shoulders all the time, I think, and you do that through having a really clear articulate vision, by doing lots of modelling, by building capacity, by involving people and giving responsibility and by sharing responsibility in the first instance, by throwing a kind of safety net, a safety blanket over and saying, 'You know, it's okay to make mistakes, and if we're doing things for the right reasons, you'll never fall foul.' (H19)

We as leaders need to be able to have the skillset which enables us to build the capacity of our teams. (A14)

Reference was commonly made to building leadership capacity through workforce learning and succession planning. This was linked especially to the shorter tenure of staff in an international school context. Hence, building leadership capacity was viewed as a protective factor. This will also be explored as a potential barrier to the development of adaptivity in an international school context in considering RQ3.

Building capacity at all levels, because we know in an international context, people are here for a fixed period of time, so if a leader or leaders aren't building the levels and the layers of capacity and succession planning, as a principle, the school will quite quickly - and I've seen it a number of times - schools have lost a few key people, a few key leaders, and have taken a massive, massive step backwards. (H6)

This concept of developing capacity within an organisation was closely linked to a deep commitment to occupational learning with a strong view that this should be modelled by the leader. The following are typical of the responses received:

The leader would be, in a school setting, actively involved in the professional learning. And so, others would see that leader learning visibly. (K9)

You never stop questioning what you're doing, and you never stop identifying opportunities to grow. But I think this goes way beyond just an individual school. It has to be embracing the opportunity to learn as a group of schools learning from each other, setting up learning communities. It's the whole idea of sharing best practice, detecting talent, making sure that you share that talent within your school and across schools. (I5)

Cultural change

This second component within this theme relates to participant views that adaptivity is associated with cultural change and that leaders need to understand and be skilful at managing culture change, typified by:

If you're adapting you want cultural change, don't you? You want to adapt and have it as a long-term improvement. Change does imply something quicker; adapting implies something long term that goes deeper to me. (B6)

A range of terms were used to describe this aspect: 'culture change' (A10/B6/E3), 'cultural absorption' (C5), 'shifting culture' (D1) and 'changing cultural capital' (H10). These references should be seen within the context of repeated direct and associated participant reference to organisational culture. Aside from references to adaptivity, 'organisational culture' was the most commonly referred term used across all interview data.

The difference between managing change and adaptive change is dealt with more fully in relation to RQ3. The essence of this theme, based on interview data, is that adaptive schools have an empowering organisational culture that proactively builds capacity and manages cultural change well.

RQ2 - Adaptive leaders

RQ2 asked, how do educational leaders define the leadership required to build adaptive capacity in an international context?

The overall themes for this research question are identical to those addressing RQ1, but with different component parts. The rationale for identifying the same themes is that it is not possible to separate adaptivity in an organisational sense from adaptive leadership given the interplay between leadership and organisational culture (Smircich & Morgan, 1982; Alvesson, 2002b; Morgan, 2006; Day, Griffin & Louw, 2014). I identify the three major themes and the components that contribute to each theme in the table below.

Theme	Components of each theme
1. Openness	<ul style="list-style-type: none"> ▪ See the bigger picture ▪ Enquiring mind
2. Identity	<ul style="list-style-type: none"> ▪ Reflexive self-knowledge ▪ Purpose ▪ Continuous learning
3. Empower	<ul style="list-style-type: none"> ▪ Collective mindset ▪ Climate creation

Table 4.2 - Themes from data analysis defining the characteristics of adaptive leadership

Theme 1: Openness

This first theme of 'openness' reflects that the data assert that adaptive leaders are outward looking and proactively interrelating with the operating environment. This will be explored through two components.

- See the bigger picture
- Enquiry minded

See the bigger picture

This leadership component relates to the outward looking component within the earlier organisational section. There was a strong and repeated view from participants that leaders within adaptive organisations are 'outward looking' and 'see the bigger picture' (A14/C15/D6/G15/L15) beyond the organisation

they lead or sector within which they lead. Two points were clearly made: firstly that leaders are knowledgeable and up to date, and secondly that they value and utilise multiple sources of evidence, as exemplified by these participant extracts.

I think they need to be knowledgeable of the field in which they work because I think if you were to suggest adaptive, it means that you would need to be aware of changes within that particular sector or field. So you would want to be able to adapt and be able to keep up to date and informed of what potentially evidence is saying and what makes an impact. (G10)

You also have to be a person who's willing to take in input from multiple sources because if you're not able to take that input in you're potentially missing a thought, an idea, an action that you may not otherwise have considered. (L10)

The deeper aspect of this component was frequently cited as the leader proactively utilising evidence to inform the organisation's development, described by one participant as the leadership ability to 'read the educational headwinds'.

Should be able to read the educational headwinds, runes, see the tea leaves, whatever, of what is coming down the line, where are the threats coming from, where are the next improvement needs? But that's part A, but then what increasingly I've realised is part B is the ability to get everybody to know it and to make changes. It's almost like cultural absorption. (C4)

This leadership drive to use external information was reinforced by another participant:

I think we need to have a hunger to understand what's happening within our societal context, and then being able to bring those different pieces back to the table and engage in conversation. I think we need to be prepared and willing to know that not all the best knowledge comes from the educational sector, and that we need to look beyond, and should be looking beyond to find that, and then to bring that back to stimulate and provoke conversation. (A14)

The two extracts above move beyond information gathering to focus on how it is used with school communities. This will be further explored in the 'empower' theme later in this chapter.

Enquiring mind

This 'enquiring mind' component is linked to the 'bigger picture' and relates to being inquisitive about oneself, others and the operating context. All participants referred either directly or indirectly to this as an essential element of Adaptive Leadership using a range of terminology: for example, 'enquiry', 'open', 'curious' and 'explorative'.

They have to be open minded; they have to be... I keep using this word 'curious'. I don't know if there's a better word for it. They have to be sort of curious about what's going on and why things are going a certain way, why they aren't going a certain way. (B10)

Someone with an open mind, someone who has their pulse on what other people are thinking and... it's really, I guess, seeing the big picture. (D6)

In defining this aspect of leadership, participants also consistently shared the view that adaptive leaders proactively seek feedback. In other words, they are curious in the views of others about their leadership behaviour and impact (H16/B10/L5).

In defining this enquiry component of leadership behaviour, participants went beyond the impact an individual leader has on others. This was expanded to include: creating a climate conducive to thinking, conversation and enquiry - exemplified by one participant as 'opening up thinking and enquiry' (A14).

I think, leaders, adaptive leaders need to be very good at asking cognitive questions, meditative questions, so that we can actually create thinking within our teams. (A14)

Based on interview data, the essence of this theme is that adaptive leaders look beyond their boundaries and actively utilise a range of sources of evidence to inform their leadership. This is fuelled by an inquisitive and

enquiry-based outlook which gathers information about the context and seeks feedback about themselves as a leader.

Theme 2: Identity

The second theme of 'identity' reflects that data assert that adaptive leaders have a clear sense of identity. This will be explored through three components.

- Reflexive self-knowledge
- Purpose
- Continuous learning

Reflexive self-knowledge and self-awareness

Participants frequently referred to the prominence accorded to adaptive leaders being 'reflective' (A15/I1/I6) and that this is a pre-cursor to 'accurate self-knowledge' (I6) and 'self-awareness' (A15/B13/C9/D16/E8/G13/H12/I10), summed up by the Ancient Greek aphorism, inscribed on the Temple of Apollo in Delphi, 'know thyself'. Given the repeated references to this throughout participant interviews, this self-knowledge is viewed as central to this theme of leadership identity, exemplified below.

I think in the end it comes down to two things. It's the individuals' self-knowledge and awareness of how they are and who they are, and their own strengths and weaknesses. (B13)

They would know themselves, they would be able to evaluate their impact as a leader, so they will be reflective of their strengths and weaknesses. That is only one part of it; it's whether they do anything about it which is the adaptive element. (G9)

A school that knows itself well has a leader who knows him or herself really, really well. They have a strong sense of identity. They understand what is driving their behaviours and what is driving their decisions. (H16)

This aspect of self-awareness was extended to be self-awareness with purpose in that participants spoke about leaders being sufficiently self-aware

to manage their own behaviour and to self-regulate. This is usefully articulated through two participant reflections.

I was fortunate in my leadership career to have a mentor who was tried and tested and international [...] having that mentor helped me reflect on what my behaviours were and what I needed to discard and what I could carry forward, so I think that's one way to work with this up-and-coming generation of leaders. (L8)

It's being able to identify when leadership behaviours could be a hindrance to be able to move the organisation forward and then being able to act on that with those people you trust. (G13)

Purpose

Participants consistently referred to the purpose and direction of adaptive leaders and, whilst articulated in different ways, there was commonality in sentiment. For all participants, there is an element of deeper purpose to the work of adaptive leaders. Participants repeatedly referred to underlying values, moral purpose or moral responsibility as being the driver for leadership behaviours and decision making. The most striking reference to this moral responsibility is exemplified by the following contribution:

I feel a very strong ethical and moral responsibility to every child that walks through the gates of any school community that I am part of, where I am leading. And that moral and ethical responsibility is that every moment that they have with us, they do not get back, they only have one moment in time, and every second in every class, and every experience, it's part of their existence and it's part of framing and creating who they are going to be as they grow, and it's our responsibility as a school to ensure that what we are offering, in terms of experience, is relevant, it's meaningful, it's going to empower them. And we have to do that, even though we don't know what it is that our young people are going to. (A15)

A further example of reference to 'moral purpose', is exemplified below:

If they know themselves well and they've got a strong moral purpose, they've got a strong set of values and they are inwardly reflective, and they seek feedback to make sure that they validate that what they think about themselves is similar to what other people are thinking about them. (H16)

Others referred to this more broadly as purpose, always linking to values, for example:

For me, all behaviours come from values. And I think the leader has to value and want to be, at its very core, adaptive. That has to be driven from the value layer that sits below: What is our purpose for being here? What is our purpose for being in the roles that we are in? What is our purpose for leading our team?... It has to come right back to the core of why schools exist. (B15)

Continuous learning

As with the components above, there were many references to adaptive leaders demonstrating a high degree of learning in their personal actions and behaviour, summed up as:

When I think about [adaptivity] I have the skills and attributes to be able to shift what I do to adapt to new circumstances... It's part of the mindset. (K7)

In relation to this component of identity, participants commonly explored the need for constant learning and re-learning alongside the need to adapt their leadership behaviour to meet the needs of the context and demands. Inherent in this was the implicit sense that leadership behaviour is malleable with the ability to change and mould this over time. In discussing this flexibility of leadership behaviour, one participant referred to the sense of knowingly 'dialling up/down' specific behaviours.

Some leaders might have to work on some of their behaviours because they're not intrinsically inclined to be a certain way. Good leaders will repress some parts of their personality and turn the dial up on other behaviour. A tiny example of that is, you know, you might have impatience as a strong characteristic, but we all know impatience as a visible trait in leadership is terrible, it's not what you want to see from one of your leaders. So a good leader will adapt their behaviours and they'll turn down the impatience when they are in front of people they're leading. (B11)

Learning ability and commitment to learning (I6) was repeatedly seen as a core characteristic of adaptive leaders, as demonstrated by these two responses:

I think that fundamentally, in terms of them being a learner themselves first, which are the foundations of being able to be adaptive. (H16)

An ability and willingness to relearn and learn again and relearn. (G10)

The essence of this theme, based on interview data, is that adaptive leaders have a clear sense of identify and that this is formed through strong reflexivity, underpinned by a clear purpose and continuous approach to professional learning. Important to all of this is that participants in this study view leadership as a malleable set of behaviours that can be learned.

Theme 3: Empower

The third theme 'empower' reflects that data asserts that adaptive leaders value and nurture a culture of empowerment. This will be explored through two components.

- Collective mindset
- Climate creation

Collective mindset

There was a strong and consistently shared view that adaptive leaders proactively and intentionally adopt a mindset and behaviours that foster

collective responsibility within their teams. This sense of collectivity was defined in a range of ways, as demonstrated by these two contributions.

Rather than just saying, 'This is how we're going to do it', you know, involve people in to make the change or how to move forward and bring people onboard, so really understand people. (D6)

I was thinking about this the other day, the idea of leadership - I used to think of it in a band with the leader as lead singer, the one at the front making the noise. But increasingly I see leadership much more as almost... it's essential that it's there - and if it's not there you'll notice it immediately - but it allows others to take the stage. And I think that's where the best schools and the best leaders are able to see what's coming but shift their organisations for the whole organisation to tackle a particular issue. [...] For me I think that's probably the hallmark of the really good leaders where it becomes an organisational drive rather than an individual drive. (C5)

This was also referred to as 'collective mindset' (H19), 'distributing leadership and empowering others' (K8) and 'collectively owning the vision' (A14).

I think the one thing I would say is I think an adaptive leader has to be willing to - not own anything. I think it's very easy when you lead, to have certain visions and have certain aspirations, which can eat into your heart, and when they're not realised, you go through a process of disappointment. And I think to be an adaptive school, I think we need to be leaders where we don't own the pieces to the point where we're going to hold them so tightly that we don't allow them to go on their own metamorphosis, I think we have to be able to work with our communities to pitch beyond, and then we've got to be able to be comfortable enough and trusting enough to know that if we collectively pitch that vision, we collectively own that vision, and if we collectively nurture that vision, that we will then be able to work with those environmental pieces and nurture those in different ways. (A13)

Climate creation

Through the analysis of interview data, there were repeated references to creating the right climate for collective responsibility to take place. There were two common aspects: 'safety' and 'no blame' which, I evaluate, as

interrelated. This was echoed directly by several participants who referred to the need for leaders to create a climate where team members feel safe.

Creating a safe space is really important. What's the biggest constraint in all of us as humans that stop us doing things? It's fear. So I think that you need to be able to decode what creates those fear points, and then be able to look at how we can support people [...] As leaders, be able to try and decode in each of our team members what their fear is, and then try and remove that for them, so that they've got a path to be able to move through. (A18)

I think adaptable organisations, schools in particular, can't be innovative, can't be adaptive and agile if there's a culture of fear or of getting things wrong, or of insecurity. (H19)

Intrinsically linked to creating a safe space where fear is minimised is the related issue of valuing mistakes and viewing mistakes as a learning opportunity (I2/L1).

The essence of this theme is that adaptive leaders look to empower others through fostering a sense of collective responsibility and leading through others. This takes place within a climate where staff feel safe to take risks.

RQ3 - Adaptivity and change

RQ3 asked: How do educational leaders view adaptivity in relation to change and what are the barriers to developing adaptivity?

Each participant explored the issue of the perceived difference between being adaptable and managing change in the context of an international school. There was a high degree of commonality and coherence in the views of the participants. In the table below I outline the frequently cited words within participant responses.

Words used in defining the management of change	Words used in defining adaptivity
<ul style="list-style-type: none"> ▪ 'technical' ▪ 'short-term' ▪ 'reactive' ▪ 'transactional' 	<ul style="list-style-type: none"> ▪ 'proactive' ▪ 'visionary' ▪ 'reflective' ▪ 'nuanced' ▪ 'cultural' ▪ 'sustainable' ▪ 'deep'

Table 4.3 - Most frequently cited words in defining the management of change and adaptivity by participants

Several participants were explicit to note that the change process was not being relegated and that the effective management of change is an essential element of an adaptive organisation. Participants viewed adaptivity as being of a higher order than managing change with a view that organisations may be skilled at managing change or multiple change projects but not necessarily adaptive. The extracts below help to exemplify this insight.

To me, adaptive is proactive, it's visionary and reflective. When I think about managing change, it takes my mind to a place of... What is the implementation going to look like? How will we map that out? What do the timescales look like? How can we ensure that as we go through the project, it's going to grip within the context that we are in? I think managing change, for me, feels a much smaller piece of an adaptive school. (A2)

Adaptive to me is about shifting the culture and it's more sustainable, I guess. It is a deep change. (D1)

Typically, participants talked about much change in schools being related to the implementation of projects that are not necessarily within the school's control, for example, exam change, accreditation change and implementing governmental directives. These were defined by participants as important and essential but 'reactive' (B2/E2/J1), with 'little or no choice' (C1) and often seen as 'technical' (A2/D2/E2). This was contrasted, by participants, with adaptivity being about a longer term, more proactive and intentional process. This adaptivity is exemplified below.

I tend to think of adaptive change as a fundamental change in behaviour and new ways of doing things, and new ways of operating... Adaptive change, to me, feels much deeper, permanent, and system wide. (K1)

In relation to the earlier theme of adaptive organisations being externally focused, participants spoke of the way that adaptive organisations use the environment and external information sources to steer their direction. These adaptive choices were seen by participants as 'proactive' (A2/C1/E2/J1), 'visionary' (A2/B3), 'predictive' (B2/3) and 'choiceful' (H3). A repeated view is that a hallmark of adaptive change is that it affects the culture of an organisation and cultural behaviour. To summarise this difference between adaptivity and managing change, one participant shared the following perspective.

I think managing change and adapting, whilst nuanced, I think one speaks to reactive types of action, and the other speaks to proactive. The adaptive [organisation] spends far more time, instead of just responding well to a current challenge or current crisis, they spend, I think, enough time looking out and forward at how their world might turn out, and how they might sit in that world and how they might respond in that world. (J2)

Challenges to adaptivity

In addition to being able to outline the characteristics of an adaptive organisation, an adaptive leader and the difference between adaptivity and change - there was also evidence of participants being thoughtful about the potential challenges to international schools in building their adaptive capacity. Inevitably, participants framed these barriers to adaptivity in a range of ways, often linked to their own leadership experience and geographic location. Despite this variance, clear themes were identified which appear specifically relevant to international schools. I have separated these into two categories and these are outlined in the table below and then explored more fully.

Internal to the organisation	External to the organisation
<ul style="list-style-type: none"> ▪ High staff and leadership mobility ▪ Challenge to autonomy 	<ul style="list-style-type: none"> ▪ Lack of understanding of local context ▪ National & international events

Table 4.4 - Participant views on challenges to the development of adaptive capacity in international schools

High staff and leadership mobility

Given it is common for international school staff to work on short-term contracts, often 2-3 years. This can lead to ‘high turnover’ (K3) and was cited as a potential barrier to fostering an adaptive culture. One participant linked this high turnover to the issue of trust.

Historically many schools see a much higher churn rate of staff and leadership which potentially could then lead to trust continuously having to be rebuilt. (G4)

Specifically, the change in leadership was viewed as a potential challenge to stability in purpose and direction, impacting long-term transformation.

It can bring fresh ideas into the school, but it can also mean that every 3-5 years you can have a shift in direction and that can destabilise the school community. (I4)

Linked to the issue of turnover was the acknowledgment that building an adaptive culture takes time with a shared view that ‘adapting implies something deeper’ (B6).

Challenge to autonomy

Participants cited the issue of autonomy as a potential barrier to adaptivity. This can be internal, addressed here and external, addressed as ‘local barriers’, below. For this internal perspective, autonomy was mainly related to governance and/or proprietorial oversight in international schools. No participants were ultimately negative about governance but some cited examples at points in their leadership career when there was a tension between the aspirations of the governors or owners of the school and that of the leadership. From the interview data, this manifested itself in two ways.

The first related to governors or school owners who wish to see specific projects delivered, possibly because of relationships that owners have external to the school as opposed to a project that adds value to the student experience and is driven by the school leaders and staff, as demonstrated by the following example:

And I use that as an example [...] where there were amazing projects that would come our way, and I would call them 'gifts' – 'We've just received a beautiful gift'. Now, our beautiful gift in my last context was a farm project which [school owner] had been to France and had seen a farm project in school, and a French village where the children were out and they were planting the vegetables and harvesting the vegetables, and then they were eating the vegetables and they were doing some learning in the afternoon. And the vision was that we were going to have this enormous glasshouse and our kids are going to grow vegetables and we'll eat the vegetables at school. But it was a project which, in its aspiration and vision was a very hard thing to realise. But what that tended to do is it then tended to suffocate the school context in terms of their own ability to look at how they could be adaptive, whether in a growing environment, which was becoming more and more and more aware of sustainability, and it was becoming more aware of sustainability because of the blockade and because of having to become self-sufficient. And so there was environmental shifts that were happening, but that direction was predetermined to some extent. (A7)

The second issue is more generally about governance oversight and the amount of autonomy afforded to the school's leaders (B4). This was cited not in relation to any specific issue but more as a general trend. Drawing on a range of experiences in different contexts, one participant summed this up.

An enabling system, and enabling sets of leaders, they understand that – and I think it was Ken Robinson that said, 'The role of leadership and governance at school level, at national level, and at global level is about climate control, it's not about command and control'. And I think confident system leaders, and I think confident school leaders, and I think knowledgeable and competent leaders and systems in that space - and probably mature systems as well, you know, they can be a bit more confident about leading organically and enabling at every level. (H8)

Lack of understanding of local context

Participants commonly cited a lack of understanding of the local context, including what was defined as nuance being imperative in the international education sector. Without this understanding and integration it was viewed that international schools can easily become 'an island' (J6). It was felt that this could rapidly become a reality for those schools that constantly seek to anchor themselves to a 'home country' rather than understanding the need for local integration. The specific issue identified in this case is that when seeking to develop adaptivity, the schools can easily develop a form of adaptivity that is not sensitive to the operating environment and context. As such, not benefitting from local connections and partnerships - a situation described graphically by one participant:

The way they evolved, at least in my opinion, and specifically, I think that the worst culprits of this are American schools, is that they essentially said, "We're going to supplant a school that you might find in our home country, and we're just going to pick it up and drop it in this country, this new country. And we're not necessarily, you know, it's not that we dislike our local culture, but it's unimportant to the aims of our school, is incorporating the other culture. And also, it's unimportant to us, or it's not needed for us to fulfil the obligations of our schools, or the mission and vision of our school – it's not necessary for us to reach out to the school down the road or the school in the country next to us." Because their mindset was, "We're delivering a British education or an American or a Canadian education, and we just happen to be in Country X." So the way they looked was they looked back to their home, their home country, where their...or at least the country of the curriculum origin, and they sought to align themselves with a picture or a view of what that education system was like. And so, how they made their particular school better was a version of a Canadian/American or a British school, or Aussie school, they made their version in their head, in that country, better. And what they sought was a connection with the home country, not with, "The current country I'm in, nor the schools that are near me." And that, I think, is the struggle that still persists to this day, is that most schools would see themselves as an island in and of themselves. You have a head of school and you have a board of governors or a board that helps with the head of school in terms of governance, but essentially, I'm accountable to the board, the board sort of, its parents within its school, maybe one or two community members, but essentially I'm still an island in and of myself. (J6)

To counter this view, participants regularly cited a strong understanding of local culture, religion and politics as essential for operating successfully and in a culturally sensitive manner. An example of such a view is cited below:

A little bit of empathy and compassion for the knowledge of [local culture], and some knowledge of how schools actually operate is critical. But also, I think, particularly in the international context, is having a good solid... is it called cultural capital or cultural understanding, cultural awareness? Because you know, we can talk about... if we talk about the Middle East, for example, you've got the macro-culture, but then you've got sub-cultures that sit within that, and then you've got school cultures. So do you know the country? Do we know that we're in an Islamic region? Do we know and understand and appreciate that Arabic is the language of the land? Do we understand that Islamic faith and principles sit above everything? Do we then know what it means to have international schools in this context from the UK, from Canada, from the US, from India, from wherever? So we've got all of these cultures within the macro-culture, and then each individual school has also got its own culture and its own identity. So if you can understand those different levels of culture in an international school context, it makes decision making, adaptability and agility much, much easier. (H10)

National and international events

In this category, macro issues were cited which impacted on a school's ability to work on developing its adaptive capacity, for example, civil unrest, drought, political tension, changes in the economy (cited by C3). At the time of gathering data, the world was experiencing the global COVID-19 pandemic and participants often referred to the impact of this in their responses.

Positive support for adaptivity

It is worthy of note that when discussing this issue, nine participants - unprompted - noted that the characteristics of an international school often support an adaptive mindset rather than hinder it. These participants related the mindset of staff that choose to work internationally being more inclined to be tolerant of change and risk taking. Participants reflected this versus their experience of working in domestic schools, captured in the extract below.

I think it's the type of person who's going to work in international schools, right? If someone is open to move overseas you have to be open to change because, take the work environment away, it's also learning about a new culture within the community, it's finding new housing, it's... there's so many different changes, right, so you just know there's going to be changes in addition to the work environment. Whereas, you know, if someone didn't like change and wasn't open to change it would be unlikely that they would choose to work in a completely new environment. And especially in schools where there's turnover every three to five years because then you also have teachers who are moving and have that mindset. (D3)

RQ4 - The School as a Learning Organisation in the international context

RQ4 asked: How relevant is the SLO model in the international context?

The rationale for including this as part of this study was because the literature base on SLOs is not from an international school context and therefore it is helpful to test out the relevance as viewed by international school educators. There is also ambiguity in the literature in relation to how the SLO concept is interrelated with adaptivity and this is addressed in RQ5.

As a preliminary note, it should be noted that the SLO concept is sizeable and could easily stand on its own as the sole focus of enquiry. The focus of this research question is not to conduct an in-depth enquiry but rather to investigate whether the 'spirit' of the SLO model, as presented by Kools and Stoll (2016), has resonance with international education leaders utilising their composite response. The analysis for this research question was conducted differently from other analysis within this study. For this research question the Kools and Stoll (2016) SLO model was used as the basis for coding. Within the model there are seven 'dimensions' further broken down into forty-nine 'elements' which provide additional detail. Each of the elements was treated as an a priori code. The data relating to the participant conception of a SLO was coded against the forty-nine elements. The purpose of this was to gain a generalised sense as to whether the concept had relevance to the participants. The full coding can be seen in Appendix 19. I summarise in the table below which elements had data coded to them and which did not.

Dimensions	Elements								
Developing a shared vision centred on the learning of all students	1 <input checked="" type="checkbox"/>	2 <input checked="" type="checkbox"/>	3 <input checked="" type="checkbox"/>	4 <input checked="" type="checkbox"/>	5 <input checked="" type="checkbox"/>				
Creating and supporting continuous professional learning for all staff	6 <input checked="" type="checkbox"/>	7 <input checked="" type="checkbox"/>	8 <input checked="" type="checkbox"/>	9 <input checked="" type="checkbox"/>	10 <input checked="" type="checkbox"/>	11 <input checked="" type="checkbox"/>	12 <input checked="" type="checkbox"/>	13 <input checked="" type="checkbox"/>	14 <input checked="" type="checkbox"/>
Promoting team learning and collaboration among all staff	15 <input checked="" type="checkbox"/>	16 <input checked="" type="checkbox"/>	17 <input checked="" type="checkbox"/>	18 <input checked="" type="checkbox"/>	19 <input checked="" type="checkbox"/>	20 <input checked="" type="checkbox"/>			
Establishing a culture of enquiry, exploration, and innovation	21 <input checked="" type="checkbox"/>	22 <input checked="" type="checkbox"/>	23 <input checked="" type="checkbox"/>	24 <input checked="" type="checkbox"/>	25 <input checked="" type="checkbox"/>	26 <input checked="" type="checkbox"/>	27 <input checked="" type="checkbox"/>		
Embedding systems for collecting and exchanging knowledge and learning	28 <input checked="" type="checkbox"/>	29 <input checked="" type="checkbox"/>	30 <input checked="" type="checkbox"/>	31 <input checked="" type="checkbox"/>	32 <input checked="" type="checkbox"/>	33 <input checked="" type="checkbox"/>	34 <input checked="" type="checkbox"/>	35 <input checked="" type="checkbox"/>	
Learning with and from the external environment and larger system	36 <input checked="" type="checkbox"/>	37 <input checked="" type="checkbox"/>	38 <input checked="" type="checkbox"/>	39 <input checked="" type="checkbox"/>	40 <input checked="" type="checkbox"/>	41 <input checked="" type="checkbox"/>	42 <input checked="" type="checkbox"/>		
Modelling and growing learning leadership	43 <input checked="" type="checkbox"/>	44 <input checked="" type="checkbox"/>	45 <input checked="" type="checkbox"/>	46 <input checked="" type="checkbox"/>	47 <input checked="" type="checkbox"/>	48 <input checked="" type="checkbox"/>	49 <input checked="" type="checkbox"/>		

Table 4.5 - Data analysis evidencing which elements of the SLO model (Kools and Stoll 2016) were included in participant interviews

It should be noted that this concept was explored 'blind' with the participants receiving no pre-read or participant briefing linked to the concept. Forty two of the forty-nine elements had data coded against them. From the analysis using a priori codes, it appears that the concept of SLO has resonance and relevance to international school leaders given that their views about what constitutes a SLO in an international school accords with much of the content in the established model from Kools and Stoll (2016).

RQ5 - The relationship between a School as Learning Organisation and an adaptive organisation

RQ5 asked: Where does the school as a SLO model sit in relation to adaptivity in an international school context?

Participants explored their views on the relationship between these two concepts. There was a unanimous view from participants that the two concepts are inter-related and cannot be viewed as separate, for example:

I think they are interconnected, not separate. (I5)

There must be an overlap. (B8)

The overarching sense from participants is that being a LO is a building block to becoming adaptive.

I think a learning organisation is the preamble to being adaptive. (H13)

I don't think you could be an adaptive school if you are not first a learning organisation. (A11)

It's almost like the foundation for adaptability is being a learning organisation, and then you can really get into that exciting space of adapting, being agile, being innovative. (H14)

One participant issued a caution to organisations that believe that they are being adaptive.

If you think you're an adaptive school, but you don't think you're a learning organisation, then what you're doing is implementing projects and implementing initiatives, and taking action in relation to something, reactive action. (A11)

Taking the view that being a LO is an antecedent to developing adaptivity, participants defined why, in their view, this was the case. This centred around the view that they saw much of what defines a LO as being more internally focused, though not exclusively, for the school; with adaptivity being more externally focused on meeting the demands of a 'complex and changing environmental context' (K7). This duality of internal/external from participant data does not align with the literature on SLOs where there is a very definite external lens for a SLO. This is explored in Chapter 5.

Based on data analysis three themes were identified. The participants viewed these as essential to a LO and that only by having these embedded in an organisation could it consider developing adaptive capacity. The aspects relate to:

1. Organisational culture
2. Having clearly embedded systems and processes
3. Using internal feedback

Organisational culture

The theme of developing and sustaining an organisational culture that values learning for all was consistently included in participant views. This was most strongly addressed in the extract below.

I think that the learning organisation ... it's a cultural piece. It's how we live, it's how we breath, it's how our hearts beat, it's what sits at the centre of everything that we do. And then if we get that right, we can get our culture working in a place where people are safe - and this is going to sound strange - people are safe, people are vulnerable, people are courageous, people are open. Then I think we're in a place where we can potentially be an adaptive school. (A10)

Having clearly embedded systems and processes

Participants all saw that if a school were to become and sustain adaptability, it needs established and effective systems and processes. These were most often related to (i) the management of change, and (ii) school self-evaluation processes.

If you're a really solid learning organisation, chances are you're going to manage change pretty well, and chances are that you're going to measure that change as you progress, that you're going to make wise choices about what you change and what you choose not to change, how you change it. (H14)

This capacity for managing change was repeatedly referred to as a core capability which is then a building block for adaptability. The rationale for focusing on these internal processes was highlighted by one participant as 'building for sustainability' (G7). In other words, ensuring that any change implemented is executed in such a way that it lasts.

Using internal feedback

Whereas the commonly held view of participants was that adaptivity refers to a school's ability to manage its future to meet the changing and complex demands of the operating environment, there was a shared view that within a LO there is at least an equal emphasis on meeting internally focused needs. This was powerfully conveyed by one participant who recounted a scenario which, in their view, portrayed the school they lead as a LO. Given the detail that was provided, the extract below has been significantly shortened.

I do spend a lot of time reading around education [...] I find it impossible not to apply that to what I do in school and I have conversations with my colleagues. So some of it is going to come from external forces but in a really good learning organisation your teachers are doing the same that I'm doing and they will be also looking and reading and thinking and also looking at their kids in the class and going, 'Right, look, here's what we've noticed in the past six weeks, we're going to adapt and change what we do because of what we're seeing from kids'. (B8)

The participant explained how a professional learning focus in their school linked to lost student learning as a result of COVID-19 had changed the learning for students and adults alike. Their key point was that whilst they were aware of the external drivers and research being undertaken outside the school, there was a very definite evidence based internally that should inform the school's practice. The participant concluded by noting:

But it wasn't from me, all we did was say, 'How's it going with these kids, what have you noticed?' and the learning from the teachers is strong enough and open enough and reflective enough that they said, 'Here's what we've noticed and here's what we're doing about it'.

So they have led the process rather than me imposing it on them, which is what I thought might be going on in the classroom, but it's not me in the classroom so how would I know? What does that mean about a learning organisation? Ideally, culturally the school will have an environment where the teachers are leading the learning and the leadership is advocating and supportive of the teachers leading the learning because they're the ones in the classroom. (B8/9)

Within this extract, the participant is pointing to a LO being one that listens to voices from within the school to make change. This example is specifically included as a contrast to the adaptive organisation which may be more externally focused, described as ‘looking beyond the horizon’ (H14).

RQ6 - Enabling leadership behaviours

RQ6 asked: What are the implications for future leadership behaviours for educational leaders in an international school context?

Throughout the analysis of interview data, several aspects related to leadership behaviours arose again and again, without prompting. These were viewed by participants as important in developing and sustaining an adaptive organisation. In deciding the three major themes in RQ2, linked to adaptive leadership, an attempt was made to incorporate these behaviours into the themes. However, the linkages were tenuous. In addition, the behaviours identified here play out through each of the three themes (in RQ2) rather than being attached to any specific theme. As a result, I determined to list these separately and define them as ‘enabling leadership behaviours’ in relation to this research question. These enabling behaviours all emerged from the data and are:

- Development of trust
- Comfort with ambiguity
- Leading with humility
- Strong ability to listen
- Cultural intelligence

To understand more fully how these five enabling behaviours were expressed by participants, they are exemplified below.

Development of trust

Of all five leadership behaviours, ‘trust’ was the most frequently cited and a constant refrain from participants (A14/B9/D2/G3/H15/I9/K13/L2). Trust was cited as a foundation for ‘strong professional relationships’ (A19/D2), for ‘nurturing risk taking’ (H6) and for ‘influencing adaptive change’ (G4).

Is there a culture of trust? Particularly within leadership. So would the leaders be making decisions knowing that they have the trust of their teams or the wider community to make those decisions? (G3)

Unless there is trust in the system at leadership level I think that the ability to influence and oversee change is hampered. (G12)

In relation to risk taking (H6).

I think there has to be a high degree of trust when you talk about an adaptive system. If there is no sense of trust or if there's no sense of risk taking which is kind of on the opposite end of that trust spectrum - you can't do the other without it. (L3)

The issue of trust was also cited in relation to 'building effective relationships with the parent body' (I9), especially when dealing with adaptive change as this requires the parent body to buy into the school's strategic intent. Without strong trust, there was a sense from participants that adaptive leadership cannot flourish. This is exemplified in the extract below.

Trust - you know - unless there is strong trust within relationships within that level of the organisation then there is nothing [...] I think that comes through trusting relationships between a line manager and a leader. (G13)

Comfort with ambiguity

Given the nature of adaptive leadership with a focus on working with an organisation to define its future and negotiate complexity, there is an aspect of in-built ambiguity. Participants called this out with a view that this needs to be a strength in adaptive leaders.

I think it's being happy and being secure with ambiguity [...] You may need to adapt and flex depending on what a situation entails. (G10)

This was further exemplified with reference to a specific leadership behaviour.

I think we need to be brave enough to say that we don't have the answers. (A14)

This notion of actively embracing ambiguity links closely with the theme of openness with a sense of welcoming information and evidence from a range of sources; and with the theme of identity, especially the strand of continuous learning.

Leading with humility

Participants commonly expressed a view that leading with humility helps to forge strong professional relationships and helps to promote a climate where professional risk taking more readily takes place, for example:

Superb leadership is about leading with humility, compassion, and empathy. (H13)

This behaviour links to the previous behaviour in that to lead with humility requires a leader to be comfortable with not having all the knowledge required (link with ambiguity, above) and being open with their teams about this.

Strong ability to listen

The leadership behaviour of strong listening skills (D7), repeatedly cited, fits with comfort with ambiguity and leading with humility.

There is no point in adapting to something or making changes if it's not working and if you don't know its impact. So you have to be reflective and to be open and good at asking questions and good at listening. (B4)

Always being willing to listen to a variety of inputs. (C6)

Cultural intelligence

This final enabling behaviour of possessing 'cultural intelligence' could be classified as a knowledge base. However, it has been intentionally classified as a leadership behaviour as it is seen by participants as an enduring and

intentional way of behaving when working in international schools. In many ways, this links with all the above leadership behaviours as they are all involved in cultural intelligence. This is included as both knowledge acquisition, an attitude and way of working. Participant extracts were included earlier in this chapter in relation to potential barriers to adaptivity which support this strand. In addition to evidence from the research conducted for this thesis, there is supporting evidence for the importance of cultural intelligence from my Institution Focused Study (Camby, 2020). This evidence is included in Appendix 20 and references the interplay between a school's organisational culture and the macro-culture of the host country or nation. This evidence base supports the view of leaders in this study, citing the importance for international school leaders to have a deep knowledge, appreciation and respect for cultural intelligence.

The development of enabling leadership behaviours

As explained in the previous section, the enabling leadership behaviours were frequently articulated by participants throughout the interviews. The issue of how these are developed or nurtured was specifically addressed with each participant. Two themes emerged from the analysis with a consistency between the participants. The themes are:

1. Environment
2. Feedback

These will be explored below. As a precursor to exploring it is worthy of note that participants viewed the development of adaptive leadership behaviour as taking place 'on the job' and being reliant on 'role modelling' from others (A18/H23) and through 'leading by example' (C6).

Environment

Participants typically identified the need for an appropriate operating environment as an essential foundation for the development of leadership behaviours. This emerged in two main forms. Firstly, the need to 'create space' (A17) and to create 'safe space' (A18/J10/I9). This notion of creating space connects with the leadership behaviours in the previous section, especially the development of trusting relationships.

Feedback

Whilst the first theme (above) is external to the leader, the second theme is internal and more personal to a developing leader. The use of feedback was consistently referred to as essential to the development of adaptive leadership.

So an individual leader, if they know themselves well and they've got a strong moral compass, they've got a strong set of values and they are inwardly reflective, and they seek feedback to make sure, to validate that what they think about themselves and know about themselves is similar to what other people are thinking about them. (H16)

Being able to establish a working relationship where feedback is seen as a... It sounds cheesy ... but it's where feedback is seen as a gift - where you're able to pick up on these behaviours - where they work really well and being able to grow them. (G13)

Connected to the importance of feedback was the recurrent theme that feedback is not an end point, but that it leads to ongoing reflection (B9/D5/G10/I9/L8) to foster a sense of strong self-awareness which links to the component of 'reflexive self-knowledge' as part of the identity theme in relation to RQ2.

In summary, the data analysis assert the development of five enabling leadership behaviours alongside two contextual enablers and these are summarised in the table below.

Enabling leadership behaviours	Contextual enablers
1. Development of trust 2. Comfort with ambiguity 3. Leading with humility 4. Strong ability to listen 5. Cultural intelligence	1. Environment 2. Feedback

Table 4.6 - Enabling leadership behaviours and contextual enablers

Having analysed the data from participant interviews, this data will be drawn on in Chapter Five linking the data to the literature cited in Chapter Two and the methodology and methods outlined in Chapter Three.

Chapter 5 - Discussion and Conclusion

In drawing together the conclusions for this research there is a need to be reminded of its purpose.

- To explore how international educational leaders think about organisations and leadership when considering the future of international schools with reference to adaptive leadership; and
- To explore whether the SLO concept has relevance within an international school context

This study builds on my Institution Focused Study which had a featured spotlight on organisational culture in international schools. My doctoral thesis has set out to explore how educational leaders consider the future of international schools through the lens of organisational considerations and the associated leadership requirements guided by six research questions.

This chapter draws links between the literature in Chapter Two, the methodology in Chapter Three and the data analysis in Chapter Four. A short commentary is outlined below in relation to each research question. This is followed by further evaluative detail and reflections on this research. At the outset, it should be borne in mind that the methodological basis for this study is grounded in there being an absence of a hypothesis with no intent on generalising the outcomes. As such, any support or disagreement with the literature is within the context of this study and is not suggesting that the same outcomes would necessarily be found in another study or in other contexts.

RQ1 - Adaptive organisations

Through conducting interviews and subsequent analysis it is concluded that participants in this study were confident to articulate their view of adaptivity as it relates to international schools. This was interesting and relevant as I was not sure at the outset of the study whether this would be the case. During the planning stage I considered providing briefing material on adaptivity prior to the participant interviews. Following reflection and discussion with my supervisors I decided not to take this route to explore an unbiased view.

Whilst each participant framed their insights in a way that was personal to them, there was a strong consensus in their thoughts and this made the identification of themes a relatively straightforward exercise.

Drawing on the analysis in Chapter Four and through reflection on the literature in Chapter Two, I identified three clear markers that align with the established literature and explore these below.

1. The system
2. Leadership and capacity
3. Moral purpose

The system

As can be seen from the data analysis, there was a clear sense from participants that they view adaptive organisations as being intimately interrelated with their operating environment and that the broader macro forces directly impact the way that an organisation functions and discerns its future direction. There was explicit and implicit evidence from participants that they view this interaction with the external environment as active and intentional. This aligns strongly with the literature on the interrelationship not being passive (Cilliers, 1998; Osborn, Hunt & Jauch, 2002), on System Theory (Senge, 1990) and the notion that organisations operate in open systems (Weick, 1976, 1979; Orton & Weick, 1990). The view of Lawrence and Lorsch (1967) that what takes place outside affects what happens within was resonant in all participant accounts. In describing this external environment, participants referred to a range of macro influences, many of which correlate with those cited in the extensive literature outlined in Appendix 2. The way that participants described this external environment corresponds to the work on complexity, dealing with constant change and uncertainty (Uhl-Bien & Arena, 2018).

Leadership and capacity

Data analysis showed that participants prioritise a distributed or collective model of leadership which they see as building capacity and as a hallmark of an adaptive organisation. Leadership will be explicitly addressed in the next

section linked to RQ2. The overriding learning from the analysis, however, was that participants view adaptivity at organisational level as aligned with broader leadership as opposed to that defined by role. This alignment accords with the range of authors who assert a more distributive conception of leadership is evident in adaptive organisations (Heifetz & Linsky, 2002; Harris, 2004; Heifetz, Grashow & Linsky, 2009; Eichholz, 2014; Heifetz & Linsky, 2017). Participants view the combination of distributive leadership and effective professional learning as central to building strong capacity, aligning with the work of Stoll (1999).

Moral purpose

Alongside the view that adaptive organisations have a clear direction and strong strategic intent (Hamel & Prahalad, 1994) was the view that this is guided by values and a moral purpose. As noted in the literature review, whilst not unique to the conception of adaptive organisations, the essential element of moral purpose is incorporated into other models which were cited in Chapter Two (Lewin, 1947; Bateson, 1972; Argyris & Schön, 1974; Senge, 1990; Heifetz, 1994; Fullan, 2003; Fullan, 2005).

Returning to the research question, do educational leaders recognise the characteristics of adaptive organisations and, if so, how do they define the characteristics in an international school context? I deduce from the data analysis that these educational leaders have a view of what it makes to be an adaptive organisation and that this has alignment to content in the available literature. The centrality of System Theory is played out in participant views. From data analysed in Chapter Four, leaders in this study identify the components listed below as those resembling adaptive organisations. For ease of reference the table below is repeated from Chapter Four.

Theme	Components of each theme
1. Openness	<ul style="list-style-type: none"> ▪ Outward looking ▪ Stakeholder engagement
2. Identity	<ul style="list-style-type: none"> ▪ Organisational self-evaluation ▪ Direction ▪ Strategic thinking
3. Empower	<ul style="list-style-type: none"> ▪ Capacity building ▪ Cultural change

Table 5.1 - Themes from data analysis defining the characteristics of an adaptive organisation

The above table is based on data provided by participants in relation to the issue of adaptive organisations and overlaps with some content in the model from Kools and Stoll (2016) when defining a SLO. This point will be explored and elaborated later in this chapter when considering RQ4 and RQ5. It is also needs to be noted that one element which is viewed as an essential indicator of adaptivity by participants in this study relates to an organisation's ability to be reflective and to accurately self-evaluate its work. This is not present in the literature linked to adaptivity yet is a repeated theme in participant interviews. My suggestion is that this requires further exploration. I propose that this element may be specifically present in the view of educational leaders as they are used to school self-evaluation and reflection being deeply engrained in external accreditation processes, hence the significance afforded by participants in this study.

RQ2 - Adaptive leadership

As cited in Chapter Four, the outcome of data analysis was that the same three overarching themes apply to the participant conception of Adaptive Leadership in international schools as to adaptive organisations but with differing component parts. Within this conception of leadership, there are alignment points with the literature in Chapter Two. Before analysing the literature related specifically to Adaptive Leadership it is important to note how the participant data compares with general leadership theory. Participants present a model of leadership that stands in opposition to many traditional conceptions of leadership, including Trait Theory (Webb, 1915;

Gowin, 1918; Bernard, 1928), Charismatic Leadership (Weber, 1947), Transactional Leadership (Jones, Gergen & Jones, 1963; Hollander, 1978; Blanchard & Johnson, 1982) and Contingency Theories (Vroom & Yetton, 1973; Hersey & Blanchard, 1977). There are some aspects in the participant data which have resonance with Transformational Leadership (Burns, 1978; Bass, 2008), especially the reference to moral purpose. Drawing on the critique of leadership theory presented in Chapter Two, participant data in this study supports the following points:

- Leadership is viewed as including the development of capacity within the wider team and not related to specific title or role (Schneider, 2002). This opposes views of the supervisor-subordinate relationship (Zaccaro & Klimoski, 2001; Bedeian & Hunt, 2006; Avolio, 2007).
- Leadership is viewed as a collective process which involves a range of stakeholders, especially in agreeing direction (Gronn, 2002) to realise a diverse set of viewpoints (Mulder, 2017). This stands opposed to theories which imply a uni-directional process (Mechanic, 1962; Mowday, 1978; Bryman, 1986; Yukl & Falbe, 1990).
- Leadership is viewed as engaging in a proactive and intentional manner with the external operating environment and as such is conceived as a system phenomenon (Marion & Uhl-Bien, 2001; Hazy, 2006; Uhl-Bien, Marion & McKelvey, 2007) with leaders interacting to consider the best path for an organisation (Glover, Rainwater & Friedman, 2002; Khan, 2017). Indeed, socially constructed as a result of this interrelated engagement (Cilliers, 1998). However, this is a far more intentional and proactive engagement than was conceived with Contingency Theory (Fiedler, 1978; Houghton & Yoho, 2005). The evidence from participant data is that they see leadership as intimately interrelated with the environment in terms of information sources from external stakeholders, organisations and society - with a sense that the environment is complex (Uhl-Bien & Arena, 2018).
- Leadership is viewed as a malleable and learned set of behaviours (Heifetz, 1994). All participants narrated a focus on the importance of learning for leaders, this was both learning to improve and learning to

model to others in the organisation. This stands in opposition to any notion of an in-built leadership ability (House et al., 1999) or a sense that leadership is static (Meindl & Ehrlich, 1987).

- Leadership is viewed as creating the right conditions for others to participate (Marion & Uhl-Bien, 2001). A point that is specifically included from participant data that is not present in literature connected to Adaptive Leadership is that participants asserted that specifically, effective leaders create a safe space which establishes a no blame culture. This is included in wider literature but not specifically in Adaptive Leadership literature.
- Leadership is viewed as being driven by a clear purpose which is guided by a moral imperative. There is an overlap here to the work cited above in relation to RQ1.

The points listed above based on participant data are a near copy to the evidence from research summarising the core elements of Adaptive Leadership conceived by Heifetz (Heifetz, 1994; Heifetz & Laurie, 1997; Heifetz & Linsky, 2017) and which were cited in Chapter Two and repeated below for ease of comparison.

ALT asserts ...	ALT rejects ...
... a framework for leadership as a shared concept with the focus on leadership being distributed.	... any notion that leadership is based on inherent traits, a particular personality style or a role title.
... the leader as being central to engaging others in developing shared responsibility for identifying challenging problems and participating in defining and implementing adaptive solutions	... the more traditional notion of the leader as lynchpin.
... that leadership is malleable and can be learned.	
... that leadership can be practiced from any level of the organisation, regardless of background and/or title.	

Table 5.2 - Summary view of Adaptive Leadership

As with RQ1, there is some overlap of content in relation to this issue of Adaptive Leadership with content in the SLO model (Kools & Stoll, 2016). Also, mirroring data analysis for RQ1, an element cited in participant data but not specifically in literature connected to adaptive leadership is the

importance placed in leader reflection and self-awareness. As noted in Chapter Four, this was specifically identified as a component within the identity theme of leadership. Mirroring the strongly held view from participants relating to leader identity, is the parallel issue connected with RQ1 concerning the identity of an organisation (linked to organisational self-evaluation). Again, this was not present in the literature linked to adaptivity yet is a repeated theme in participant interviews. Both issues are identified as possible areas for further research later in this chapter.

Returning to the research question I deduce that from the evidence and subsequent analysis, that participants in this study shared a clear view on the ingredients of Adaptive Leadership. I have demonstrated above how this participant view compares with the literature cited in Chapter Two. As with RQ1, there is a clear view of the participants outlining a conception of Adaptive Leadership in international schools that fits within a conception of System Theory and aligning with literature linked to theories of complexity and Adaptive Leadership. Leaders in this study identify the components listed in the table below, reported in Chapter Four, as those resembling Adaptive Leadership.

Theme	Components of each theme
Openness	<ul style="list-style-type: none"> ▪ See the bigger picture ▪ Enquiring mind
Identity	<ul style="list-style-type: none"> ▪ Reflexive self-knowledge ▪ Purpose ▪ Continuous learning
Empower	<ul style="list-style-type: none"> ▪ Collective mindset ▪ Climate creation

Table 5.3 - Components of adaptive leadership as cited by participants in this study

RQ3 - Adaptivity and change

The analysis of data in relation to RQ3 confirms the literature cited in Chapter Two. Participant data draws a distinction between change and adaptivity with an over-riding view from the data that adaptivity is seen as higher order to change management. This is a view that aligns with evidence cited earlier and which is summarised by Uhl-Bien and Arena (2018) drawing on a wide body of literature (Hooijberg, Hunt & Dodge, 1997; Parry, 1999; Zaccaro & Klimoski, 2001; Burke, Pierce & Salas, 2006; Uhl-Bien, Marion & McKelvey, 2007; Uhl-Bien & Marion, 2009; Doz & Kosonen, 2010; Worley & Lawler, 2010; Rosing, Frese & Bausch, 2011; Reeves & Deimler, 2011; Keister, 2014; Griffith et al., 2015; Baur et al., 2016; Margolis & Ziegert, 2016).

Evaluation of participant data leads me on to draw links with established work from Heifetz et al (Heifetz, 1994; Heifetz & Linsky, 2004, 2017) identifying challenges as technical versus adaptive, albeit with participants not necessarily or consistently using this terminology. In participant data, there is reference to change being 'reactive', 'with little or no choice' and 'technical'. These participant views point to notions of technical change (Heifetz, 1994; Eichholz, 2014). This can be compared to participant views of adaptive challenges, seen as 'longer term', 'intentional' and 'sustainable'; cited by one participant as leading to 'changes in culture' - aligned with the view of an adaptive challenge from the literature (Heifetz, 1994; Heifetz & Laurie, 2001). Participants also cited the practice of utilising multiple information sources from the operating environment to assist with addressing adaptive challenges, aligning again with Heifetz (1994) who asserts that multiple vantage points help to gain a deep understanding of the issues at play. This firmly places this under the umbrella of System Theory (Senge, 1990), supporting a view of interrelated interaction with the operating environment (Newhofer, 2003; Senior & Swailes, 2010).

To make a further link, there is also a strong alignment with literature from Complexity Theory which contrasts 'exploitation' (utilising existing resources to manage change and leverage existing capabilities) with 'exploration' (creating new capabilities to ensure future viability (Rosing, Frese & Bausch, 2011; Uhl-Bien & Arena, 2018)).

Whilst there is a strong sense of coherence and alignment when comparing the evidence base from this study with the established literature base, there is also an absence in the participant data when compared to the literature. This absence is notable on two key points:

1. The importance attached to the correct diagnosis of a challenge (Argyris & Schön, 1974, 1978; Fritz, 1989; Heifetz, Grashow & Linsky, 2009). Although not stated explicitly, there is a conclusion drawn from participant data that challenges fall into neat categories, technical or adaptive. Scholars suggest that this is not clear-cut (Heifetz, 1994; Eichholz, 2014; Heifetz & Linsky, 2017). This is cited by Argyris and Schon as 'failed error recognition' (Argyris & Schön, 1978), and viewed as due to an overreliance on a leader's personalistic assessment (Argyris & Schön, 1974; Bateson, 1979).
2. One participant spoke of potential tension being a positive driver for adaptivity, but this was not present in other data. There were no mentions of the much cited assertion in literature that, when challenged, leaders have a tendency to bring the organisation back to a sense of equilibrium (Heifetz, 1994; Heifetz & Linsky, 2002; Eichholz, 2014) with the view that this can prevent adaptive work.

As a result of reflection, I am of the view that both the issues above could be beneficial areas of further exploration. What leads me to this conclusion is that a range of scholars repeatedly cite both issues as important, yet they were not addressed by participants in this study. They are areas that could be significant learning points from literature that is wider than the education sector and will be explored later in this chapter.

As analysed and reported in Chapter Four, participants identified several perceived barriers to the development of adaptivity in an international school context but there is no available literature with which to calibrate this analysis. These points may not necessarily be relevant to schools in all other contexts. For ease of reference, I outline these perceived barriers in the table below.

Internal to the organisation	External to the organisation
<ul style="list-style-type: none"> ▪ High staff and leadership mobility ▪ Challenge to autonomy 	<ul style="list-style-type: none"> ▪ Lack of understanding of local context ▪ National & international events

Table 5.4 - Participant views on perceived barriers to adaptivity in international schools

Returning to the research question and drawing on the analysed data, it is evident that participants view change and adaptivity as related but distinct concepts. Data indicates that participants have a clear view of adaptive challenges and can cite potential barriers to the development of adaptivity within an international school context.

RQ4 - The School as a Learning Organisation in the international context

As outlined in preceding chapter, the purpose of this research question was not to undertake a deep exploration of the SLO model but rather to explore how relevant international educational leaders saw it to their context. As an outcome of the data analysis and further reflection, I conclude that:

1. the SLO model as outlined by Kools and Stoll (2016) is relevant to the international school context; and
2. that a minor addition could be made to the SLO model referencing the cultural context of international schools.

My rationale for asserting the first point (above) is that participants in this study were asked to explore and articulate their view regarding what it means to be a LO as an international school and what they believe to be the characteristics of such a school. This exploration was undertaken without any preparation or sharing of materials to eliminate bias or pre-research on the part of the participants. From the coding of participant data against the forty-nine elements from the Kools and Stoll (2016) model, forty-two elements had participant data as a direct match. Based on this, it would seem reasonable to assert that the content within the model has relevance to leaders working in the international school context.

My rationale for asserting the second point, regarding cultural context, is linked to the reference made by participants to the importance of

understanding and addressing cultural sensitivity when working in an international education context. This point overlaps with analysis and evaluation of data related to RQ1 and to RQ3. Inevitably, participants in this study are alert to, and sometimes sensitive to, local culture - noting in response to RQ3 that local culture can sometimes be a barrier to the development of adaptivity. For clarity, this is not asserted, in any way, as a criticism of the SLO model but more of an area for further exploration if it were to be applied more broadly with international schools.

Returning to the research question, how relevant is SLO model in the international context? As explained above, the data relating to this research question allows for the conclusion that this model has relevance for international schools.

RQ5 - The relationship between a School as Learning Organisation and an adaptive organisation

This section draws on data and evidence which connects with the earlier research questions given that the content of this research is interrelated. This was never more obvious than in the interviews which were fluid conversations, gathering evidence in a way that was comfortable to participants - aligned with the methodology outlined in Chapter Three. Only during the data analysis process was the data linked to specific research questions.

Drawing on data analysis and reflection the conclusion to this RQ is that there is an interrelationship between the concepts of adaptivity and the SLO concept. Participants consistently cited this interrelationship. There is also a strongly asserted view, based on data, that participants in this study see the LO as a 'building block' or 'foundation' to developing adaptive capacity. Taking evidence from across the research questions, there is a strong connection with the definition of capacity building from Stoll (2009) which was cited in Chapter Two and that all the features identified in this study, especially in relation to RQ1 and RQ2, contribute towards building adaptive capacity.

To further interrogate and triangulate the relationship between adaptivity and the school as a learning organisation I draw on research from Santa (2015). This study, using twenty pieces of research, identified the cultural properties in a learning organisation. Supporting the point asserted above, there is a link between the cultural properties identified in the summary from Santa (ibid) and the views shared by participants in this study.

This research question addresses an identified gap in the literature. The literature on adaptivity is taken from general leadership theory and is not education specific. It has been built over time and was borne out of perceived limitations and criticisms of general leadership theory as cited in Chapter Two. By contrast, the SLO literature has been designed specifically drawing on a significant body of evidence from OL and LOs making connections with school improvement literature. The latter body of evidence refers to adaptivity but either in passing or as a consequence of being a LO, rather than it being the focal point of the research. Based on the data, and subsequent reflection I am convinced that the two concepts are distinct yet interrelated and I depict this in the diagram below.

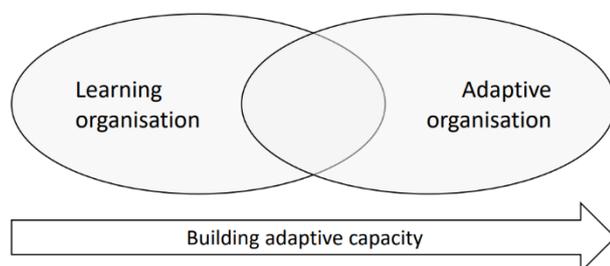


Figure 5.1 - Interrelationship between two concepts

It is clear from the data, as reported in relation to RQ4, that participants see the SLO model as relevant to an international school context. They reported, without any prompting, elements that align with the Kools and Stoll (2016) model. When discussing adaptive organisations with the participants, they were also able to define what they viewed as adaptivity in an international school context. Whilst they reported with clarity and themes were identified, there were some elements of the data that are more aligned with the SLO model than with the literature on adaptive organisations. This evidences an overlap or potential confusion. There are several possible reasons for this:

1. the participants are unclear about the difference between the SLO concept and adaptive concept; or
2. the literature base is unclear about the interrelationship between the two concepts; or
3. the fact that the SLO literature has been developed by education specialists and adaptive literature by non-education specialists means that the latter has not been fully tailored to a context matched to schools.

Given the clear evidence from the data that the SLO model is a foundation for adaptivity, I propose that there is evidence that by working toward a school being a LO, as defined by Kools and Stoll (2016), schools are indeed developing adaptive capacity. This supports the assertion by Stoll and Kools:

A School as a 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. (Stoll & Kools, 2017, p.7)

I conclude that the reason this is the case, is because ultimately, both the LO concept and the adaptive concept fall under the umbrella of System Theory - with a strong focus on working with stakeholders inside and outside the organisation and utilising multiple sources of data. Both are also predicated on a distributive or collective model of leadership. I propose these conceptual connections result in a harmony between the theories. I do, however, question an assertion made by Stoll (1999, p.506) noting that a school with internal capacity can 'take charge of change because it is adaptive'. My reason for questioning is that evidence from this study suggests that there are some additional elements of developing an adaptive organisation and developing adaptive leadership that are 'on top' or 'in addition to' the SLO model. Indeed, I would go yet further and assert that there are some additional elements of schools becoming adaptive that are outside of the scope of the participants in this study, but which are covered in the literature from non-education literature related to adaptive leadership. To evidence this, the table below outlines the elements that participants in this study viewed as important both through an organisational lens and through a

leadership lens to a school being viewed as adaptive. For each of these, I identify whether they are part of the SLO model from Kools and Stoll (2016) using references to their seven dimensions in the model (see Appendix 8). In addition, I include several elements related to adaptivity which I conclude are worthy of consideration for inclusion, based on the literature cited in Chapter Two, but which are missing from participant data in this study.

Content		Source	Part of SLO model
Openness (Organisation)	Outward looking	Data analysis RQ1	Yes – Dimension 6
	Stakeholder engagement	Data analysis RQ1	Yes – Dimensions 1, 6
Openness (Leadership)	See the bigger picture	Data analysis RQ2	Yes – Dimension 6
	Enquiring mind	Data analysis RQ2	Yes – Dimension 4
Identity (Organisation)	Self-evaluation	Data analysis RQ1	Partly – linked to Dimension 5
	Direction	Data analysis RQ1	Yes – Dimension 1
	Strategic thinking	Data analysis RQ1	Partly – linked to Dimensions 1, 7
Identity (Leadership)	Reflexive self-knowledge of leader	Data analysis RQ2	Implicit in Dimension 7
	Purpose	Data analysis RQ2	Yes – Dimension 1
	Continuous learning	Data analysis RQ2	Yes – Dimension 2
Empower (Organisation)	Capacity building	Data analysis RQ1	Yes – Dimensions 2, 3, 7
	Cultural change	Data analysis RQ1	Partly – Dimension 7
Empower (Leadership)	Collective mindset	Data analysis RQ2	Yes – Dimension 7

Content		Source	Part of SLO model
	Climate creation	Data analysis RQ2	Partly – Dimensions 1, 7
The correct diagnosis of challenges being faced by an organisation		Heifetz (1994, 2009); Agyris and Schon (1974, 1978); Fritz (1989)	Not included in either SLO model or participant responses in this study
The use of tension and tendency of leaders to return organisation to equilibrium and stasis		Uhl-Bien & Arena (2017); Heifetz (1994); Heifetz & Linsky (2002); Eichholz (2014)	Not included in either SLO model or participant responses in this study

Table 5.5 - Characteristics of adaptive organisations and adaptive leadership based on data from this study and literature

Returning to the research question I conclude that based on data from this study, the two concepts are distinct, yet interrelated; and that by working toward becoming a LO, a school is building its adaptive capacity. However, to become fully adaptive, a school needs all the facets of being a LO plus some additional characteristics defined in the table above.

RQ6 - Enabling leadership behaviours

The data which was used to address this research question is general in origin. By this, I mean that it was not addressing either the concept of either the LO or adaptivity but more generally navigating the future from the perspective of the participants who were all educational leaders in the international school sector. Based on the data gathered I identified five enabling behaviours and two contextual enablers that support the development of these leadership behaviours. I show these in the table below.

Enabling leadership behaviours	Contextual enablers
<ol style="list-style-type: none"> 1. Development of trust 2. Comfort with ambiguity 3. Leading with humility 4. Strong ability to listen 5. Cultural intelligence 	<ol style="list-style-type: none"> 1. Environment 2. Feedback

Table 5.6 - Enabling leadership behaviours and contextual enablers as an outcome of data analysis

There is a link between the leadership behaviours identified above and the leadership skills identified by Uhl-Bien and Arena (2017) defined to support leaders dealing with complexity. The first leadership behaviour, 'trust', has a direct link with one of the four transversal themes identified by Kools and Stoll (2016). The focus on feedback has clear links with the work of Argyris and Schon (Argyris & Schön, 1974, 1978) as the way that participants discuss and define feedback is resonant of Double Loop Learning with a focus on deeper feedback that affects future actions and behaviour.

Returning to the research question and in the spirit of listening to participants and allowing them to steer the direction, the table above outlines how they view these. The implications from this research are that these need to be explored as part of professional learning for leaders, both existing and emerging. The definitive view of participants in this study is that these are developed and nurtured 'on the job'. My conclusion is that this set of leadership behaviours and the two enablers need to be made explicit through work with leaders and built into reflective learning with leadership teams.

Concluding comments

This section brings together the outcomes from all research questions as a conclusion to this study. When contemplating the key characteristics of an adaptive international school and of adaptive international school leaders, three key themes were prominent in this research. Firstly, adaptive international schools and adaptive international school leaders demonstrate an **openness** to their operating environment. In an organisational sense this is characterised by looking out, working beyond the boundaries of the school in an intentional manner and utilising many sources of evidence from organisations and the stakeholders connected to the school. For leaders, this openness is characterised by a desire to 'see the bigger picture', making

connections with multiple sources of evidence, underpinned by an enquiring and curious approach. Secondly, adaptive international schools and their leaders demonstrate a strong sense of **identity**. In an organisational sense this starts with a strong culture of, and systems for, accurate self-evaluation, a clear sense of direction and a well communicated strategic intent underpinned by a clear moral purpose. For leaders this sense of identity is characterised by strong and accurate self-awareness and self-knowledge, a clear sense of purpose and a high priority on continuing learning, including from mistakes. The final theme characterising adaptive international schools and their leaders is a sense of **empowerment**. For organisations this is linked to building capacity by utilising and developing talent alongside skilful leadership of culture change. Through a leadership lens this is about leaders creating a climate in which workforce learning is highly valued and which fosters a collective mindset within the community they lead, seeing leadership as a collective exercise.

Underpinning the organisational and leadership characteristics outlined in the paragraph above, data from this study identifies five enabling leadership behaviours which underpin the work of adaptive leaders. These are: the development of trust, comfort dealing with ambiguity, leading with humility, a strong ability to listen and strong cultural intelligence. These five enabling behaviours are facilitated by two contextual factors. Firstly, the creation of a safe operating environment; and secondly, the importance attached to feedback in developing individuals, especially leaders. Without these two, the data assert that adaptive leadership cannot develop.

Change is a given in any organisation and data in this study paid credit to the successful management of change. However, the data also went beyond the management of change in identifying the leadership of adaptability as a higher-order activity. When considering this in relation to the international school sector, four potential barriers to change were identified. Two of these are internal to an international school: the potentially high staff and leadership mobility; and possible challenge to autonomy from owners and governors. The other two potential barriers are external to an international school: the

lack of understanding of the local context, and national and international events that can impact operations.

The final aspect of exploration related to the relationship between the SLO concept as defined by Kools and Stoll (2016) and that of adaptivity in an international school context. Evidence from this study strongly suggests that the SLO concept and model has relevance to international schools, despite not having been developed in such settings. The one possible amendment to this model is an increased focus on the cultural context of the school. Evidence points to participants viewing SLOs and adaptivity as distinct yet interrelated concepts. By working toward becoming a LO, a school is building its adaptive capacity.

To close the gap with the literature base in Chapter Two, I identify below some of the strong alignments between the evidence in this study with the broader literature base. Evidence from this study:

1. Rejects the notion of a trait-based approach to leadership and sees leadership as malleable and learnable (Heifetz, 1994).
2. Reinforces the notion of leadership as opposed to the leader, with a view that Adaptive Leadership is collective and dispersed (Heifetz, 1994).
3. Asserts that there are some specific leadership behaviours that are required in order to foster adaptivity (Wilson et al., 2020; Uhl-Bien & Arena, 2017).
4. Supports the assertion that adaptive approaches to leadership are well matched to environments where there is complexity and uncertainty (Uhl-Bien & Arena, 2018).
5. Supports that there are different types of change and that technical change utilises resources within the organisation; whereas adaptive challenges require a more expansive approach and intersect with organisations and learning externally (Heifetz, 1994; Heifetz & Laurie, 1997; Heifetz & Linsky, 2004).
6. Views adaptivity as an activity that takes place within the context of a system and involves boundary spanning (Senge, 1990; Morgan, 2006; Lawrence & Lorsch, 1967; Weick, 1976; Orton & Weick, 1990).

7. Supports the notion that working as a LO and developing adaptivity builds organisational capacity (Stoll, 2009).

This research took place within a specific context, a summary of which was included in Chapter One. At the time of writing in 2021, schools globally continue to manage the implications of the COVID-19 pandemic. When coupled with the macro factors affecting schools and broader society, alongside the unknown but expected implications of the global pandemic, it is likely that international school leaders will have to, of necessity, navigate a complex operating environment. I consider this research provides insight into the type of organisational and leadership characteristics required to do this successfully.

Methodological reflection

The methodological stance outlined in Chapter Three ran throughout and informed every decision from the outset to the final stages of writing this thesis. I will reflect on this here, drawing from the detailed content in Chapter Three.

I consider that this piece of research from design, through data collection and analysis, to reporting the findings in this thesis, demonstrates alignment with the ontology and epistemology outlined in Chapter Three. The relativist ontology (Guba & Lincoln, 1994) and subjectivist epistemology (Crotty, 1998; Denzin & Lincoln, 2000; Schwandt, 2007) are at the heart of this study. The ontology and epistemology influenced: (i) the method choice, with a view that the most authentic manner to gather this data was through listening to the views of participants in producing thick descriptions (Geertz, 1973); and (ii) the method of analysis, with a view that Reflexive Thematic Analysis allowed for all voices to be heard equally with no fixed view of the potential themes. The choice of analysis was taken with the view that it values the qualitative paradigm given the focus on deep reflection and engagement with the data (Braun & Clarke, 2019). I believe that the approach taken honours the view that participants in this study brought multiple constructions of meaning and

knowledge based on their lived experience. In turn this valued the participants as self-interpreting beings (Taylor, 1985).

With the benefit of hindsight and based on reflection, it is possible that the order of questions influenced the way that participants responded, especially in relation to the concept of the SLO. Because interviews began with an exploration of adaptivity followed by the SLO concept, it is possible that this influenced the participant responses, especially in relation to participant thoughts about the SLO. As cited in Chapter 4, some participants in this study viewed the SLO as more inward facing, compared to an adaptive organisation as more externally facing. This does not mirror the literature on the SLO. Should this study be repeated, this point could be addressed by revising the order of questions.

Throughout the research process I have reflected on the content in Chapter Three relating to validity of this research, seeking to ensure that I met, in full, the criteria outlined based on the work of Lincoln and Guba (1985). Following a review of the criteria for validity I am confident that this piece of research meets the criteria outlined in Chapter Three for credibility, dependability and confirmability. As a result of this, I consider I can claim transferability of outcomes from this study. It was never the intention, and indeed not congruent with the methodology, to claim any degree of generalisability. Reflecting on the work of Yin (2016) who cites transferability as a more modest claim than generalisation, I consider the outcomes in this study will be of interest to leaders working in international schools. However, I accept and would go further to assert, that the uniqueness of their context may mean that not all aspects will be of equal relevance.

Whilst this section has reflected on my approach as a researcher in relation to my stated methodology, the next section outlines the reflexive approach I adopted throughout the research.

Reflexivity

Reflexivity is defined by Yin as:

The dynamic interplay whereby participants (i.e. those being studied) may be influenced by the presence and actions of the researcher, and conversely the influence on the researcher's thinking and observations resulting from the presence and actions of the participants. (2016, p.339)

The key point repeatedly cited in literature relating to qualitative research is that any attempt to achieve an entirely objective stance on the social world is flawed because the researcher is part of the world (Denscombe, 2010). Hertz (1997) asserts that a researcher's theoretical position, interests and political perspectives will affect, if not determine, the research questions, the methodological approach and the analysis and interpretation of data.

Social science has to wrestle with the problem of human beings creating explanations about themselves and their society when they are part and parcel of that society. (Smith, 1998, p.7)

The approach that I have taken throughout the research process has been an intentional approach to reflection and reflexivity. The siting of this section at the end of this thesis is not an indication of reflexivity 'after the event'. Reflexivity has been integral throughout the research process. McLeod usefully quotes:

The idea of reflexivity implies a certain capacity for 'bending back' or 'turning back' one's awareness on oneself. (2001, p.195)

I have consciously aimed to be reflexive at each stage of the process - treating the research, thinking and writing process as cyclical. This has been supported through keeping a research journal, using supervisors as critical friends and intentionally considering my positionality as an insider-researcher (documented in Chapter Three). In addition, I used criteria for evaluating Reflexive Thematic Analysis from Braun and Clark (2006) as a basis for

stimulating reflection on its use throughout the data analysis and reporting process. The criteria and evaluative comments relating to research in this thesis can be found in Appendix 21.

Yardley (2000) and Elliot et al (1999) note the importance of identifying the theoretical orientation, beliefs and assumptions that have influenced the research. Elliot et al (ibid) refer to 'owning one's perspective' as this enables the reader to make their own interpretation of the data and to reflect on alternative interpretations. Earlier chapters make clear reference to the theory that underpins this study and my positionality. Through the doctoral journey I have increasingly identified my own position as that aligned to a constructivist paradigm with a sense of people making meaning in their social world. Throughout this research I have aimed, through reflection, to be cognisant of my own position - to question and challenge myself to ensure I produce a thesis that is representative of data that was collected. My approach is summed up by Ward-Schofield in defining the goal of qualitative research:

Not to produce a standard set of results that any other careful researcher in the same situation or studying the same situation would have produced. Rather it is to produce a coherent and illuminating description of and perspective on a situation that is based on and consistent with detailed study of the situation. (1993, p.202)

Implications for professional practice

One of the benefits of completing this study as part of a professional doctorate is considering the action that will be taken because of this research. As a consequence of this study and of a great many related conversations with school leaders, a number of actions are evident which will be built into thinking and structural processes of the institution in which I now work and I present these in the table below.

Action	Detail
#1 Utilise the SLO model and literature with international school leaders and governors	This research has validated that the model from Kools and Stoll (2016) has relevance with international school leaders. Based on this, further exploration is required as to how to utilise this with leaders and governors. Two main avenues will be explored: <ul style="list-style-type: none"> - Incorporating into school evaluation and accreditation criteria - Including in professional learning programmes
#2 Build a model for adaptive leadership for use in professional learning	This research has validated that beyond the SLO model and literature, there are a set of leadership considerations which could help develop Adaptive Leadership. Further reflection and experimentation will seek to put these into a manageable and meaningful model for use with leaders during professional learning programmes.

Table 5.7 - Implications for professional practice

Contribution to professional knowledge

This research is based on literature drawn from a range of knowledge domains, including educational leadership, leadership theory and OL. It was intended to bring these together to inform an enquiry in the international school context where there is limited evidence. I consider that this study contributes to knowledge in the following ways:

- Data from this study demonstrates that the concept of adaptivity has relevance to international schools. There is no existing research on adaptivity in the international school context so this research supports an identified gap in literature.
- Data from this study provides for the development of a model of adaptivity in international schools with the following component parts:
 - Characteristics of adaptive international schools
 - Characteristics of adaptive international schools leadership

Underpinned by:

- Enabling leadership behaviours
- Enabling contexts for developing leadership

- Data from this study asserts confidence that the SLO model by Kools and Stoll (2016) is relevant for use in the international school context
- Data from this study provides the basis for explaining the interrelationship between adaptivity as a concept and the school as a LO concept

Limitations of this research

This research needed to be manageable and is a small-scale project. Consequently, there are some limitations arising from the study. The data for this research was collected through a process of eleven semi-structured interviews. The interviews were conducted with responsibility and care, however I am aware that there is a double hermeneutic at play (Smith & Osborn, 2008). As the researcher I was engaged in a process of interpretation from an educational leader, also interpreting their thoughts. I have continually aimed to analyse the data with integrity. I recognise that I analysed perceptions (i) at a particular moment in time; and (ii) with my working knowledge of the organisation in which data collection took place. I have made no attempts to triangulate the chosen method using additional research instruments. Also, the data and its analysis in this study offers one specific approach that I, the researcher, chose to take. There are other ways to gather and interpret this data and I recognise that working alone in this way, is not without its limitations. I acknowledge that in the process of synthesising the data, coding and re-coding that I am part of the social world that is being studied, not situated beyond (Alvesson, 2002a) and that this requires a reflexive approach which was explored earlier in this chapter. Shacklock and Smyth (1998) argue that reflexivity is an attempt to identify and address some of the limitations of research.

A limitation related to the literature in this study is that the literature on Complexity Theory, Adaptive Leadership and adaptive organisations does not relate directly to either an education or school context. This means that the data in this study, directly from an education context, has been compared to evidence from a non-education context. This can be contrasted with the work on the SLO literature base which is reflective of schools, developed by experts with deep specialist expertise. It is not a problem to draw on literature

that is non-education based but it means that there are two distinct evidence bases in terms of knowledge domains.

Fertile areas for further research

Arising from this study, several potential areas for further research are evident. I have divided these into two sections:

1. Ideas directly related to replication of this study
2. Ideas which arise from the findings of this study

Ideas directly related to replication of this study

There would be value in replicating this research with a broader group of participants to gain further insight and to compare with the outcomes from this study. The participants in this research were chosen in a purposive manner from within one global organisation. Future research could include participants not part of a global school group and participants not part of a proprietorial group.

As stated in Chapter Three, a decision was made to target participants that speak English competently. This study could easily be replicated with non-English speaking participants to explore whether outcomes are resonant of those from this study.

Ideas which arise from the findings of this study

Given that the body of literature on adaptivity is not from within an education setting, this an area ripe for further exploration. In relation to RQ1 and RQ2, the participant data placed a far greater emphasis on leader reflection, self-knowledge and self-evaluation than can be identified in any of the adaptivity related literature. This is an area that would be worthy of further exploration to enquire whether:

- this is missing from the current literature; or
- it is specific to the participants in this study; or
- it is a heightened factor in the education and/or international school sector.

RQ3 explored barriers to adaptivity and participants cited meaningful potential barriers in an international school context. These would be worthy of further exploration with a larger group to calibrate the findings from this study.

In the analysis of RQ3, it is noted that participants in this study omitted reference to two aspects cited as important in the literature base, (i) the accurate diagnosis of adaptive challenges; and (ii) the way in which leaders respond to tension and potentially bring an organisation base to equilibrium rather than using the disequilibrium as a driver for adaptive change. These topics are both worthy of further exploration to discern how they play out in the international school sector; being cognisant that the literature base is from a non-education context.

Dissemination

The findings of this research will be shared with the organisation where data collection took place, through a presentation and a summary report. During the latter stage of writing this thesis, I moved to a new role in a global membership organisation as the Director of School Evaluation and Development. This is a non-profit membership community of 1,369 institutions committed to high quality international education across 123 countries. The subject of this research remains relevant in this new role and will be used in the following ways.

- In conversations with school leaders, leaders of school groups and governors when considering the future of their school or school group
- In learning programmes
- As the basis for blogs and thought leadership pieces for use within the international education sector

Glossary

Adaptive challenge - the type of issue that requires new ways of thinking, acting or even the acquisition of a new skill set

Adaptive organisation - one that can adjust to meet the complexities of a changing operating environment

Capacity - a quality of people or organisations that allows them routinely to learn from the world around them and apply their learning to new situation so that they continue a path towards their goals, even if the context is changing

Collective learning - where group members are endeavouring to reach common learning or outcomes that will enhance all their work. This is distinct from collaborative learning, i.e., forms of learning together

Complexity theory - challenges a mechanistic or linear view of the world where cause and effect solutions are used to explain; towards an organic, non-linear view

Complexity leadership theory - claims to address the leadership challenges present in the knowledge era

Double-loop learning - higher-level, generative learning which involves questioning and modifying existing norms, procedures, policies, and objectives as part of detecting and correcting errors

Knowledge creation - forming new ideas through sharing and converting different types of knowledge, involving dialogue, and learning conversations, collaboration, and practice

Knowledge exchange - two-way process of sharing ideas, experience and learning to stimulate further learning and creation of new knowledge for practice

Mental models - people's beliefs, assumptions and thought processes about how things work in the real world that guide their actions

Professional learning - what teachers, support staff and school leaders engage in to stimulate their thinking and professional knowledge and to ensure that their practice is critically informed and up to date

Organisational learning (OL) - continuous process of integrating and collectively interpreting knowledge that enhances the organisation's collective ability to make sense of and respond to internal and external change

Organisational adaptability - the ability of an organisation to adapt to a changing environment and shifting market conditions

School as a learning organisation (SLO) - a school as a 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

Strategic intent - a described leadership position and establishes the criterion the organisation will use to chart its progress

System theory - seeing and addressing the whole and interrelationships between individual parts in a complex system

Team learning - aligning and developing a team's capacity to create results its members truly desire

Technical challenge - the type of issue that an organisation already possesses the capacity to solve

Trait theory - asserts a view that leaders are born with innate gifts that can be attached to leadership status (sometimes referred to in literature as 'Great Man Theory')

Transactional leadership theory - based on the notion of trading one thing for another, exemplifying the leader's ability to provide, withhold, or exchange rewards contingent on performance

Transformational leadership theory - based on the view that leaders assist constituents to identify a higher moral purpose and to transcend self-interest

References

- Alavi, S. and McCormick, J. (2004). 'A cross-cultural analysis of the effectiveness of the learning organization model in school contexts'. *The International Journal of Educational Management*, 18 (7), pp.406–416.
- Ali, A. (2012). 'Academic staff's perceptions of characteristics of learning organization in a higher education institution'. *The International Journal of Educational Management*, 26 (1), pp.55–82.
- Allport, F. (1962). 'A structuronomic conception of behaviour: Individual and collective'. *Journal of Abnormal and Social Psychology*, 64, pp.3–30.
- Allport, F. (1967). 'A theory of enestrucence (event structure theory): Report of progress'. *American Psychologist*, 22, pp.1–24.
- Allport, F. (1954). 'The structuring of events: Outline of a general theory with applications to psychology'. *Psychological Review*, 61, pp.281–303.
- Alvesson, M. (2002a). *Postmodernism and social research*. Buckingham: Open University Press.
- Alvesson, M. (2002b). *Understanding organizational culture*. London: Sage.
- Ancona, D. and Backman, E. (2008). *Distributed, shared or collective leadership: A new leadership model for the collaborative era?* Anaheim, CA: Academy of Management.
- Argote, L. (2011). 'Organizational learning research: Past, present and future'. *Management Learning*, 42 (4), pp.439–446.
- Argote, L. and Ingram, P. (2000). 'Knowledge transfer: A basis for competitive advantage in firms'. *Organizational Behaviour and Human Decision Processes*, 82 (1), pp.150–169.
- Argyris, C. (2000). *Flawed advice and the management trap*. Oxford: Oxford University Press.
- Argyris, C. (1999). *On organizational learning*. 2nd ed. Oxford: Blackwell.
- Argyris, C. and Schön, D. (1978). *Organizational learning: A theory in action perspective*. London: Addison-Wesley.
- Argyris, C. and Schön, D. (1996). *Organizational learning II: Theory, method, and practice*. London: Addison-Wesley.
- Argyris, C. and Schön, D. (1974). *Theory in practice: Increasing professional effectiveness*. San Francisco: Jossey-Bass.
- Arthur, J. and Aiman-Smith, L. (2001). 'Gainsharing and organizational learning: An analysis of employee suggestions over time'. *Academy of Management Journal*, 44 (4), pp.737–754.
- Avolio, B. (2007). 'Promoting more integrative strategies for leadership theory-building'. *American Psychologist*, 62 (1), pp.25–33.

- Avolio, B., Bass, B. and Jung, D. (1999). 'Re-examining the components of transformational and transactional leadership using the multifactor leadership questionnaire'. *Journal of Occupational and Organizational Psychology*, 72, pp.441–462.
- Bak, P. (1996). *How nature works*. New York: Copernicus.
- Bakhshi, H., Downing, J., Osborne, M. and Schneider, P. (2017). *The future of skills: Employment in 2030*. London: Pearson and Nesta.
- Banerjee, A. and Duflo, E. (2018). 'What is middle class about the middle classes around the world?'. *Journal of Economic Perspectives*, 22 (2), pp.3–2.
- Barnard, C. (1938). *The functions of the executive*. Cambridge, MA: Harvard University Press.
- Bar-Yam, Y. (1997). *Dynamics of complex systems*. New York: Perseus Press.
- Bass, B. (1990). 'From transactional to transformational leadership: Learning to share the vision'. *Organizational Dynamics*, 18 (3), pp.19–36.
- Bass, B. (1985). *Leadership and performance beyond expectations*. New York: Free Press.
- Bass, B. (2008). *The Bass handbook of leadership*. New York: Free Press.
- Bateson, G. (1979). *Mind and nature: A necessary unity*. New York: Dutton.
- Bateson, G. (1972). *Steps to an ecology of mind: Collected essays in anthropology, psychiatry, evolution, and epistemology*. Chicago, IL: University of Chicago Press.
- Baur, E., Parker Ellen, B., Buckley, M., Ferris, G., Allison, T., McKenny, A. and Short, J. (2016). 'More than one way to articulate a vision: A configurations approach to leader charismatic rhetoric and influence'. *The Leadership Quarterly*, 27 (1), pp.156–171.
- Bedeian, A. and Hunt, J. (2006). 'Academic amnesia and vestigial assumptions of our forefathers'. *Leadership Quarterly*, 17 (2), pp.190–205.
- Beijaard, D., Meijer, P. and Verloop, N. (2004). 'Reconsidering research on teachers' professional identity'. *Teaching and Teacher Education*, 20 (2), pp.107–128.
- Benevot, A. (2017). 'Education for people, prosperity, and planet: Can we meet the sustainability challenges?'. *European Journal of Education*, 52, pp.399–403.
- Bennett, J. and O'Brien, M. (1994). 'The building blocks of the learning organization'. *Training*, 31 (6), pp.41–49.
- BERA (2018). *Ethical guidelines for educational research*. London: British Educational Research Association.
- Bernard, J. (1928). 'Political leadership among North American Indians'. *American Journal of Sociology*, 34, pp.296–315.

- von Bertalanffy, L. (1951). 'General system theory: A new approach to the unity of science'. *Human Biology*, 23 (4), p.30.
- von Bertalanffy, L. (1934). 'Untersuchungen über die Gesetzmäßigkeit des Wachstums. I. Allgemeine Grundlagen der Theorie; mathematische und physiologische Gesetzmäßigkeiten des Wachstums bei Wassertieren'. *Arch. Entwicklungsmech*, (131), pp.613–652.
- Birkinshaw, J. and Gibson, C. (2004). 'Building ambidexterity into an organization'. *MIT Sloan Management Review*, 45 (4), pp.47–55.
- Birkinshaw, J., Zimmermann, A. and Raisch, S. (2016). 'How do firms adapt to discontinuous change? Bridging the dynamic capabilities and ambidexterity perspectives'. *California Management Review*, 58 (4), pp.36–58.
- Birnbaum, R. (1988). *How colleges work: The cybernetics of academic organization and leadership*. San Francisco, CA: Jossey-Bass.
- Blackman, D. and Henderson, S. (2005). 'Why learning organisations do not transform'. *The Learning Organization*, 12 (1), pp.42–56.
- Blanchard, K. and Johnson, S. (1982). *The one-minute manager*. New York: William Morrow.
- Boal, K. and Hooijberg, R. (2001). 'Strategic leadership research: Moving on'. *Leadership Quarterly Yearly Review of Leadership*, 11 (4), pp.515–549.
- Bolman, L. and Deal, T. (1997). *Reframing organizations: Artistry, choice, and leadership*. San Francisco, CA: Jossey-Bass.
- Bono, J. and Judge, T. (2004). 'Personality and transformational and transactional leadership: A meta-analysis'. *Journal of Applied Psychology*, 89 (5), pp.901–910.
- Bottery, M. (2001). 'Globalisation and the UK competition state: No room for transformational leadership in education?'. *School Leadership and Management*, 21 (2), pp.199–218.
- Boyatzis, R. (1998). *Transforming qualitative information: Thematic analysis and code development*. Thousand Oaks, CA: Sage.
- Boyer, E. (1990). *Scholarship reconsidered: Priorities of the professoriate*. Princeton, NJ: Carnegie Foundation for the Advancement of Teaching.
- Boylorn, R. (2008). 'Lived experience'. In L. Given (Ed.), *The Sage encyclopedia of qualitative research methods*. London: Sage.
- Bracker, J. (1990). 'The historical development of the strategic management concept'. *Academy of Management Review*, 5 (2), pp.219–224.
- Bradbury, H. and Lichtenstein, B. (2000). 'Relationality in organizational research: Exploring the space between'. *Organization Science*, 11, pp.551–564.
- Braun, V. and Clarke, V. (2021). 'Answers to frequently asked questions about thematic analysis' [Internet]. Available [Online] at:

<https://cdn.auckland.ac.nz/assets/psych/about/our-research/documents/Answers%20to%20frequently%20asked%20questions%20about%20thematic%20analysis%20April%202019.pdf>. [Last accessed 27 February 2021].

- Braun, V. and Clarke, V. (2019). 'Reflecting on reflexive thematic analysis'. *Qualitative Research in Sport, Exercise and Health*, 11 (4), pp.589–597.
- Braun, V. and Clarke, V. (2013). *Successful qualitative research*. London: Sage.
- Braun, V. and Clarke, V. (2006). 'Using thematic analysis in psychology'. *Qualitative Research in Psychology*, 3, pp.77–101.
- Braun, V. and Clarke, V. (2014). 'What can thematic analysis offer health and wellbeing researchers?'. *International Journal of Qualitative Studies in Health and Wellbeing*, 9 (1), pp.1–2.
- Braun, V., Clarke, V. and Hayfield, N. (2019). 'A starting point for your journey, not a map: Nikki Hayfield in conversation with Virginia Braun and Victoria Clarke about thematic analysis'. *Qualitative Research in Psychology*, pp.1–22.
- Brown, M. and Gioia, D. (2002). 'Making things click: Distributive leadership in an online division of an offline organization'. *Leadership Quarterly*, 13 (4), pp.397–420.
- Brown, M., Trevino, L. and Harrison, D. (2005). 'Ethical leadership: A social learning perspective for construct development and testing'. *Organizational Behaviour and Human Decision Processes*, 97 (2), pp.117–134.
- Brummitt, N. and Keeling, A. (2013). 'Charting the growth of international schools'. In R. Pearce (Ed.), *International education and schools: Moving beyond the first 40 years*. London: Bloomsbury, pp.25–36.
- Bryman, A. (1992). *Charisma and leadership in organizations*. London: Sage.
- Bryman, A. (1986). *Leadership in organizations*. London: Routledge and Kegan Paul.
- Bryman, A. (2012). *Social research methods*. 4th ed. Oxford: Oxford University Press.
- Buber, M. (1970). *I and thou*. New York: Scribner's Sons.
- Bui, H. and Baruch, Y. (2010). 'Creating learning organizations: A systems perspective'. *The Learning Organization*, 17 (3), pp.208–226.
- Burgoyne, J. (1999). 'Design of the times'. *People Management*, 5 (11), pp.38–44.
- Burgoyne, J., Pedler, M. and Boydell, T. (1994). *Towards the learning company: Concepts and practices*. London: McGraw Hill.
- Burke, C., Pierce, L. and Salas, E. (2006). *Understanding adaptability: A prerequisite for effective performance within complex environments*. Amsterdam: Elsevier.

- Burnard, P., Dragovic, T., Ottewell, K. and Lim, W. (2018). 'Voicing the professional doctorate and the researching professional's identity: Theorising the EdD's uniqueness'. *London Review of Education*, 16 (1), pp.40–55.
- Burns, J. (1978). *Leadership*. New York: Harper and Row.
- Camby, S. (2020). 'Culture: Exploring the views of international school principals'. Institution Focused Study. London: UCL Institute of Education.
- Campbell-Evans, G., Gray, J. and Leggett, B. (2014). 'Adaptive leadership in school boards in Australia: An emergent model'. *School Leadership and Management*, 34 (5), pp.538–552.
- Carlyle, T. (1841). *On heroes, hero-worship, and the heroic in history: A collection of 6 lectures given in May 1840*. London: James Fraser.
- Celic, M. and Dogan, E. (2011). 'A theoretical approach to the science of management'. *International Journal of Humanities and Social Sciences Education*, 1 (3), pp.66–69.
- Cheng, C. (2009). 'A study of the current learning organisation profile to elementary schools at Pingtung County, Taiwan'. *Journal of American Academy of Business*, 15 (1), pp.183–194.
- Chiles, T., Meyer, A. and Hench, T. (2004). 'Organizational emergence: The origin and transformation of Branson, Missouri's musical theatres'. *Organization Science*, 15 (5), pp.499–519.
- Chirichello, M. (1999). 'Building capacity for change: Transformational leadership for school principals'. In *12th Annual International Congress for School Effectiveness and Improvement*. San Antonio, TX: ERIC, pp.2–15.
- Chiva, R., Ghauri, P. and Alegre, J. (2014). 'Organizational learning, innovation, and internationalization: A complex system model'. *British Journal of Management*, 25, pp.687–705.
- Cilliers, P. (1998). *Complexity and postmodernism: Understanding complex systems*. London: Routledge.
- Clarke, V. (2019a). *Thematic analysis: Part 1 - Braun, Clarke, and Hayfield*. Available [Online] at: <https://www.youtube.com/watch?v=Lor1A0kRIKU>. [Last accessed 17 December 2020].
- Clarke, V. (2019b). *Thematic analysis: Part 2 - Thematic analysis is uniquely flexible*. Available [Online] at: <https://www.youtube.com/watch?v=DzMgUGPI5S0>. [Last accessed 17 December 2020].
- Coffey, A. (2018). *Doing ethnography*. London: Sage.
- Cohen, L., Manion, L. and Morrison, K. (2018). *Research methods in education*. 8th ed. Oxon: Routledge.

- Collins, K. and Coleman, R. (2017). 'Evidence-informed policy and practice'. In P. Earley and T. Greany (Eds.), *School leadership and education system reform*. London: Bloomsbury Academic, pp.17–25.
- Coopey, J. (1995). 'The learning organization: power, politics, and ideology'. *Management Learning*, 26 (2), pp.193–214.
- Coppieters, P. (2005). 'Turning schools into learning organizations'. *European Journal of Teacher Education*, 28 (2), pp.129–139.
- Corbin-Dwyer, S. and Buckle, J. (2009). 'The space between: On being an insider-outsider in qualitative research'. *International Journal of Qualitative Methods*, 8 (1), pp.54–63.
- Costley, C., Elliott, G. and Gibbs, P. (2014). *Doing work-based research: Approaches to inquiry for insider-researchers*. London: Sage.
- Crawford, M. (2012). 'Solo and distributed leadership: Definitions and dilemmas'. *Educational Management Administration and Leadership*, 40 (5), pp.610–620.
- Crotty, M. (1998). *The foundations of social research: Meanings and perspectives in the research process*. London: Sage.
- Cuban, L. (1990). 'Reforming again, again, again'. *Educational Researcher*, 19 (1), pp.3–13.
- Cyert, R. and March, J. (1963). *The behavioural theory of the firm*. Englewood Cliffs, NJ: Prentice Hall.
- Czarniawska-Joerges, B. (1992). *Exploring complex organizations*. Newbury Park, CA: Sage.
- Darwin, C. (1859). *The origin of the species by means of natural selection, or the preservation of favoured races in the struggle for life*. London: John Murray.
- Davidoff, S. and Lazarus, S. (2002). *The learning school: An organization development approach*. Cape Town: Juta.
- Davies, H. and Nutley, S. (2000). 'Developing learning organisations in the new NHS'. *British Medical Journal*, 320 (7240), pp.998–1001.
- Davis, J. and Eisenhardt, K. (2011). 'Rotating leadership and collaborative innovation: Recombination processes in symbiotic relationship'. *Administrative Science Quarterly*, 56 (2), pp.159–201.
- Day, D., Griffin, A. and Louw, K. (2014). 'The climate and culture of leadership in organizations'. In B. Schneider and K. Barbera (Eds.), *The Oxford handbook of organizational climate and culture*. Oxford: Oxford University Press.
- Denscombe, M. (2010). *Ground rules for social research*. Maidenhead: Open University Press.

- Denzin, N. and Lincoln, Y. eds. (2000). *Handbook of qualitative research*. London: Sage.
- Denzin, N. and Lincoln, Y. (2011). *The Sage handbook of qualitative research*. London: Sage.
- DeRue, S. (2011). 'Adaptive leadership theory: Leading and following as a complex adaptive process'. *Research in Organizational Behaviour*, 31, pp.125–150.
- DeRue, S. and Ashford, S. (2010). 'Who will lead and who will follow? A social process of leadership identify construction in organizations'. *Academy of Management Review*, 35 (4), pp.627–647.
- Desjardins, R. (2015). 'Education and social transformation'. *European Journal of Education*, 50 (3), pp.239–244.
- DiBella, A. (1995). 'Developing learning organizations: A matter of perspective'. *Academy of Management: Best Papers Proceedings*, pp.287–290.
- DiBella, A. and Nevis, E. (1998). *How organizations learn: An integrated strategy for building learning capability*. New York: Jossey-Bass.
- Diggins, P. (1997). 'Reflections on leadership characteristics necessary to develop and sustain learning school communities'. *School Leadership and Management*, 17, pp.413–425.
- Dimmock, C. and Walker, A. (2005). *Educational leadership: Culture and diversity*. London: Sage.
- Dimonovski, V., Skerlavaj, M., Kimman, M. and Hernaus, T. (2008). 'Comparative analysis of the organizational learning process in Slovenia, Croatia, and Malaysia'. *Expert Systems with Applications*, 34, pp.3063–3070.
- Dodgson, M. (1993). *Organisational learning: A review of some literatures*. Brighton: Science Policy Research Unit, University of Sussex.
- Doz, Y. and Kosonen, M. (2010). 'Embedding strategic agility: A leadership agenda for accelerating business model renewal'. *Long Range Planning: International Journal of Strategic Management*, 43 (2), pp.370–382.
- Drake, P. (2010). 'Grasping at methodological understanding: A cautionary tale from insider research'. *International Journal of Research and Method in Education*, 33 (1), pp.85–99.
- Drake, P., Heath, L., Sikes, P. and Potts, A. (2008). 'Insider research in schools and universities: The case of the professional doctorate'. In *Researching education from the inside: Investigations from within*. London: Routledge, pp.144–158.
- Drath, W. (2001). *The deep blue: Rethinking the source of leadership*. San Francisco, CA: Jossey-Bass & Centre for Creative Leadership.
- Drew, S. and Smith, P. (1995). 'The learning organization: 'change proofing' and strategy'. *The Learning Organization*, 2 (1), pp.4–14.

- Drucker, P. (1998). 'Management's new paradigms'. *Forbes*, 162 (7), pp.152–170.
- DuFour, R. (2016). 'The school as a learning organization: Recommendations for school improvement'. *NASSP Bulletin*. Available [Online] at: <https://journals.sagepub.com/doi/10.1177/019263659708158813>. [Last accessed 20 February 2020].
- Eade, D. and Ligteringen, E. (2001). 'NGOs and the future: Taking stock, shaping debates, changing practice'. In D. Eade and E. Ligteringen (Eds.), *Debating development: NGOs and the future*. Oxford: Oxfam GB, pp.11–18.
- Earl, L. and Katz, S. (2006). *Leading school in a data-rich world: Harnessing data for school improvement*. Thousand Oaks, CA: Corwin Press.
- Easterby-Smith, M., Crossan, M. and Niccolini, D. (2000). 'Organizational learning: Debates past, present, and future'. *Journal of Management Studies*, 37 (6), pp.783–796.
- Easterby-Smith, M., Snell, R. and Gherardi, S. (1998). 'Organizational learning: Diverging communities of practice?'. *Management Learning*, 29 (3), pp.259–272.
- Eichholz, J. (2014). *Adaptive capacity: How organizations can thrive in a changing world*. 2nd ed. London: Lid Publishing Ltd.
- Elkjaer, B. (1999). 'In search of a social learning theory'. In M. Easterby-Smith, J. Burgoyne, and L. Araujo (Eds.), *Organizational learning and the learning organization: Developments in theory and practice*. London: Sage, pp.75–91.
- Elliot, R., Fischer, C. and Rennie, D. (1999). 'Evolving guidelines for publication of qualitative research studies in psychology and related fields'. *British Journal of Clinical Psychology*, (38), pp.215–229.
- England, K. (1994). 'Getting personal: Reflexivity, positionality, and feminist research'. *The Professional Geographer*, 46 (1), pp.80–89.
- Evans, S. (1998). 'Revisiting the learning organization'. *Work Study*, 47 (6), pp.201–203.
- Fagan, J. (2020). 'What does 'intelligent verbatim' mean?' [Internet]. Available [Online] at: <https://www.tptranscription.co.uk/uFAQs/what-does-intelligent-verbatim-mean/#:~:text=Intelligent%20Verbatim%20Transcription%20is%20a,of%20discretion%20by%20the%20transcriber.&text=This%20is%20the%20level%20used,group%20discussions%20and%20focus%20groups>. [Last accessed 10 February 2021].
- Fairholm, M. (2001). *The themes and theory of leadership: James MacGregor Burns and the philosophy of leadership*. Washington DC: George Washington University Centre for Excellence in Municipal Management.
- Fiedler, F. (1978). 'The contingency model and the dynamics of the leadership process'. In L. Berkowitz (Ed.), *Advances in experimental social psychology (Volume 11)*. New York: Academic Press.

- Field, L. (2019). 'Schools as learning organizations: Hollow rhetoric or attainable reality?'. *International Journal of Educational Management*, 33 (5), pp.1106–1115.
- Field, L. and Ford, B. (1995). *Managing organisational learning: From rhetoric to reality*. Melbourne, Australia: Longman.
- Filion, N. and Rudolph, H. (1999). *Power, control, and organizational learning: Discussion Paper FS 1 99-104*. Berlin: Wissenschaftszentrum Berlin für Sozialforschung.
- Finger, M. and Burgin Brand, S. (1999). 'The concept of the learning organization applied to the transformation of the public sector: Conceptual contributions for theory development'. In *Organizational learning and the learning organization: Developments in theory and practice*. London: Sage, pp.139–156.
- Finkelstein, S. (2002). 'Planning in organizations: One vote for complexity'. In F. Yammarino and F. Dansereua (Eds.), *Multi-level issues in organisational behaviour and processes*. Greenwich, CT: JAI Press.
- Finlay, L. (2002). 'Outing' the researcher: The provenance, process, and practice of reflexivity'. *Qualitative Health Research*, 12, pp.531–545.
- Fiol, C. and Lyles, M. (1985). 'Organizational learning'. *Academy of Management Review*, 10 (4), pp.803–813.
- Flood, R. and Romm, N. (1996). 'Contours of diversity management and triple loop learning'. *Kybernetes*, 25 (7), pp.154–163.
- Floyd, A. and Arthur, L. (2012). 'Researching from within: External and internal ethical engagement'. *International Journal of Research and Method in Education*, 1 (1), pp.1–10.
- Foote, M. and Bartell Gau, T. (2011). 'Pathways to equity in mathematics education: How life experiences impact researcher positionality'. *Educational Studies in Mathematics*, (78), pp.45–68.
- Fritz, R. (1989). *Path of least resistance: learning to become the creative force in your life*. New York: Fawcett-Columbine Books.
- Fullan, M. (1993). *Change forces: Probing the depths of educational reform*. Bristol, PA: Falmer.
- Fullan, M. (2011). *Change leader: Learning to do what matters most*. San Francisco, CA: Jossey-Bass.
- Fullan, M. (2005). *Leadership and sustainability: System thinkers in action*. Thousand Oaks, CA: Corwin.
- Fullan, M. (2003). *The moral imperative of school leadership*. London: Corwin Press.
- Fullan, M. (2018). *The principal: Three keys to maximising impact*. New York: John Wiley and Son.

- Fullan, M. (1995). 'The school as a learning organization: Distant dreams'. *Theory into Practice*, 34 (4), pp.230–235.
- Fullan, M. and Miles, M. (1992). 'Getting reform right: What works and what doesn't'. *Phi Delta Kappan*, 73 (10), pp.744–752.
- Fullan, M. and Quinn, J. (2016). *Coherence: The right drivers for change in schools, districts, and systems*. Thousand Oaks, CA: Corwin.
- Gandolfi, F. (2006). 'Can a school organization be transformed into a learning organization'. *Contemporary Management Research*, 2 (1), pp.57–72.
- Gardner, W. and Avolio, B. (1998). 'The charismatic relationship: A dramaturgical perspective'. *Academy of Management Review*, 23, pp.32–58.
- Garmston, R. and Wellman, B. (1995). 'Adaptive schools in a quantum universe'. *Education Leadership*, 53, pp.6–12.
- Garratt, B. (1990). *Creating a learning organisation: A guide to leadership, learning and development*. Cambridge: Director Books.
- Garrett, B. (1987). 'Learning is the core of organizational survival: Action learning is the key integrating process'. *Journal of Management Development*, 6 (2), pp.38–44.
- Garvin, D. (1993). 'Building a learning organization'. *The Harvard Business Review*, pp.78–91.
- Garvin, D. (2000). *Learning in action: A guide to putting the learning organization to work*. Boston, MA: Harvard Business Press.
- Garvin, D., Edmondson, A. and Gino, F. (2008). 'Is yours a learning organization?'. *Harvard Business Review*, 86, pp.109–116.
- Geertz, C. (1973). 'Thick descriptions: Towards an interpretative theory of culture'. In *The interpretation of cultures: Selected essays*. New York: Basic, pp.3–30.
- Gerth, H. and Mills, C. (1991). *From Max Weber: Essays in sociology*. London: Routledge.
- Ghahramanifard, K., Pashaei, J. and Mehmandoust, H. (2013). 'The study of learning high schools based on Peter Senge learning'. *IOSR Journal of Humanities and Social Science*, 13 (5), pp.81–84.
- Gibson, W. (2016). 'Constructing knowledge through social research: Debates in epistemology and ontology'. In J. Swain (Ed.), *Designing research in education: Concepts and methodologies*. London: Sage, pp.54–73.
- Giesecke, J. and McNeil, B. (2004). 'Transitioning to the learning organization'. *Library Trends*, 53 (1), p.54.
- Giles, C. and Hargreaves, A. (2006). 'The sustainability of innovative schools and learning organizations and professional learning communities during

- standardized reform'. *Education Administration Quarterly*, 42 (1), pp.124–156.
- Gilmore, S. and Warren, S. (2007). 'Unleashing the power of the creative unconscious within organizations: A case of craft, graft and disputed premises'. *Journal of Critical Postmodern Organization Science*, 6 (1), pp.106–122.
- Glenn, S. (2000). 'The dark side of purity or the virtues of double-mindedness'. In H. Simons and R. Usher (Eds.), *Situated ethics in educational research*. London: Routledge Falmer.
- Glover, J., Rainwater, K. and Friedman, H. (2002). 'Adaptive leadership: Four principles for being adaptive'. *Organization Development Journal*, 20 (2), pp.18–38.
- Goh, S. (1998). 'Toward a learning organization: The strategic building blocks'. *SAM Advanced Management Journal*, 63 (2), pp.15–22.
- Goldacre, B. (2013). *Building evidence into education*. London: DfE.
- Gomm, R. and Hammersley, M. (2001). 'Thick description and thin models of complexity'. In *Paper presented at the annual conference of the British Educational research Association*. Leeds.:
- Goodwin (2000). 'Out of control into participation'. *Emergence*, 2 (4), pp.40–49.
- Gould, N. (2000). 'Becoming a learning organisation: A social work example'. *Social Work Education*, 19 (6), pp.585–596.
- Gowin, E. (1918). *The selection and training of the business executive*. New York: Macmillan.
- Graen, G. and Uhl-Bien, M. (1995). 'Relationship-based approach to leadership: Development of leader-member exchange LMX theory of leadership over 25 years - applying a multi-level multi-domain perspective'. *Leadership Quarterly*, 6 (2), pp.219–247.
- Grieves, J. (2000). 'Navigating change into the new millennium: Themes and issues for the learning organization'. *The Learning Organization*, 7 (2), pp.54–74.
- Griffith, J., Connelly, S., Thiel, C. and Johnson, G. (2015). 'How outstanding leaders lead with affect: An examination of charismatic, ideological, and pragmatic leaders'. *The Leadership Quarterly*, 26 (4), pp.502–517.
- Grint, K. (2011). 'A history of leadership'. In A. Bryman, D. Collinson, K. Grint, B. Jackson, and M. Uhl-Bien (Eds.), *The Sage handbook of leadership*. London: Sage, pp.3–14.
- Grint, K. (2005). 'Problems, problems, problems: The social construction of leadership'. *Human Relations*, 58 (11), pp.1467–1494.
- Gronn, P. (1999). 'A realist view of leadership'. In *Educational leaders for the new millennium*. ELO-AusAsia On-line Conference.:

- Gronn, P. (2002). 'Distributed leadership as a unit of analysis'. *Leadership Quarterly*, 13, pp.423–451.
- Guba, E. and Lincoln, Y. (1994). 'Competing paradigms in qualitative research'. In N. Denzin and Y. Lincoln (Eds.), *Handbook of qualitative research*. Thousand Oaks, CA: Sage, pp.105–117.
- Guba, E. and Lincoln, Y. (1989). *Fourth generation evaluation*. Newbury Park, CA: Sage.
- Guns, B. (1998). *The faster learning organization*. New York: Jossey-Bass.
- Gunter, H. (1996). 'Appraisal and the school as a learning organisation'. *School Organisation*, 16 (1), pp.89–100.
- Halse, C. and Honey, A. (2007). 'Rethinking ethics review as institutional discourse'. *Qualitative Inquiry*, 13 (3), pp.336–352.
- Hamel, G. and Prahalad, C. (1994). *Competing for the future*. Boston, MA: Harvard University Press.
- Hamel, G. and Prahalad, C. (1989). 'Strategic intent'. *Harvard Business Review*, 67 (3), pp.63–78.
- Hammersley, M. (2009). 'Against the ethicists: On the evils of ethical regulation'. *International Journal of Social Research Methodology*, 12 (3), pp.211–225.
- Hammersley, M. (1987). 'Some notes on the terms 'validity' and 'reliability''. *British Educational Research Journal*, 13, pp.73–81.
- Hamzah, M. (2011). 'School as learning organization: The role of the principal's transformational leadership in promoting teacher engagement'. *World Applied Sciences Journal*, 14, pp.58–63.
- Harari, Y. (2018). *21 lessons for the 21st century*. London: Penguin.
- Hargreaves, A. and Fullan, M. (2012). *Professional capital: Transforming teaching in every school*. New York: Teachers College Press.
- Hargreaves, A. and Fullan, M. (2013). 'The power of professional capital: With an investment in collaboration, teachers become nation builders'. *The Learning Professional*, 34 (3).
- Harris, A. (2004). 'Distributed leadership and school improvement: Leading or misleading?'. *Educational Management Administration and Leadership*, 32 (1), pp.11–24.
- Harris, A. and Jones, M. (2018). 'Leading schools as learning organisations'. *School Leadership and Management*, 38 (4).
- Harvey, C. and Denton, J. (1999). 'To come of age: The antecedents of organisational learning'. *Journal of Management Studies*, 36 (7), pp.897–918.
- Haugrud, A., Lehmann, G. and Phillips, C. (2001). 'Rethinking joint training'. *Joint Force Quarterly*, 7 (27), pp.66–70.

- Hayden, M. (2006). *Introduction to international education: International schools and their communities*. London: Sage. Available [Online] at: <http://sk.sagepub.com/books/introduction-to-international-education/n11.xml>. [Last accessed 23 October 2020].
- Hayden, M. and Thompson, J. (2016). 'International schools: The developing agenda'. In M. Hayden and J. Thompson (Eds.), *International schools: Current issues and future prospects*. Oxford: Symposium Books, pp.9–16.
- Hayes, T. (2002). 'The non-profit sector government, and business: partners in the dance of change - an Irish perspective'. *Public Management Review*, 4 (2), pp.257–264.
- Hazy, J. (2006). 'Measuring leadership effectiveness in complex socio-technical systems'. *Emergence: Complexity & Organization*, 8 (3), pp.58–77.
- Heckscher, C. (1994). 'Defining the post-bureaucratic type'. In A. Donnellon and C. Heckscher (Eds.), *The post-bureaucratic organization: New perspectives of organizational change*. Newbury Park, CA: Sage, pp.14–63.
- Heifetz, R. (2006). 'Educational leadership: Beyond a focus on instruction'. *The Phi Delta Kappan*, 87 (7), pp.512–513.
- Heifetz, R. (1994). *Leadership without easy answers*. Cambridge, MA: Belknap Press of Harvard University Press.
- Heifetz, R., Grashow, M. and Linsky, M. (2009). *The practice of adaptive leadership: Tools and tactics for changing your organisation and the world*. Cambridge, MA: Harvard Business Press.
- Heifetz, R. and Laurie, D. (2001). 'The work of leadership'. *Harvard Business Review*, 79 (11), pp.131–141.
- Heifetz, R. and Laurie, D. (1997). 'The work of leadership'. *Harvard Business Review*, 75 (1), pp.18–34.
- Heifetz, R. and Linsky, M. (2002). *Leadership on the line*. Boston, MA: Harvard Business Press.
- Heifetz, R. and Linsky, M. (2017). *Leadership on the line: Staying alive through the dangers of change*. Boston, MA: Harvard Business Press.
- Heifetz, R. and Linsky, M. (2004). 'When leadership spells danger'. *Educational Leadership*, 61 (7), pp.33–37.
- Hersey, P. and Blanchard, K. (1977). *Management of organizational behaviour: Utilising human resources*. Englewood Cliffs, NJ: Prentice Hall.
- Hertz, R. (1997). 'Introduction: reflexivity and voice'. In R. Hertz (Ed.), *Reflexivity and voice*. Thousand Oaks, CA: Sage, pp.vii–xviii.
- Higgins, M. (2012). 'Examining organizational learning in schools'. *Journal of Educational Change*, 13 (1), pp.67–94.

- Hitt, W. (1995). 'The learning organization: Some reflections on organizational renewal'. *Leadership and Organizational Development Journal*, 16 (8), pp.17–25.
- Ho Park, Y. (2008). 'Validation of Senge's learning organization model with teachers of vocational high schools at the Seoul Megalopolis'. *Asia Pacific Education Research*, 9 (3), pp.270–284.
- Hodgkinson, M. (2000). 'Managerial perceptions of barriers to becoming a learning organisation'. *Strategic Change*, 7, pp.421–433.
- Hollander, E. (1978). *Leadership dynamics: A practical guide to effective relationships*. New York: Free Press.
- Hollenbeck, J. and Jamieson, J. (2015). 'Human capital, social capital, and social network analysis: Implications for strategic human resource management'. *Academy of Management Perspectives*, 29 (3), pp.370–385.
- Hooijberg, R., Hunt, J. and Dodge, G. (1997). 'Leadership complexity and development in the leaderplex model'. *Journal of Management*, 23 (3), pp.375–408.
- Hopkins, D., Stringfield, S., Harris, A., Stoll, L. and Mackay, T. (2014). 'School and system improvement: A narrative state of the art review'. *School Effectiveness and School Improvement*, 25 (2), pp.257–281.
- Hosking, D. (2006). 'Not leaders not followers: A post-modern discourse of leadership processes'. In R. Shamir, M. Pillai, M. Bligh, and M. Uhl-Bien (Eds.), *Follower-centred perspectives on leadership: A tribute to the memory of James R Meindl*. Greenwich, CT: Information Age Publishing, pp.243–264.
- Hosley, A., Lau, A., Levy, F. and Tan, D. (1994). 'The quest for the competitive learning organization'. *Management Decision*, 32 (6), pp.5–15.
- Houghton, J. and Yoho, S. (2005). 'When should self-leadership be encouraged?'. *Journal of Leadership and Organizational Studies*, 11 (4), pp.5–83.
- House, R., Hanges, P., Ruiz-Quintanilla, S., Dorfman, P., Javidan, M. and Dickson, M. (1999). *Cultural influences on leadership and organisational advances in global leadership (Volume 1)*. Stanford, CT: JAI Press.
- House, R. and Shamir, B. (1993). 'Towards the integration of transformational, charismatic, and visionary theories'. In M. Chemers and R. Ayman (Eds.), *Leadership theory and research: Perspectives and directions*. New York: Academic Press, pp.81–104.
- House, R., Spangler, D. and Woycke, J. (1991). 'Personality and charisma in the U.S. Presidency: A psychological theory of leadership effectiveness'. *Administrative Science Quarterly*, 36, pp.364–396.
- Hunt, J. (1999). 'Transformational/charismatic leadership's transformation of the field: An historical essay'. *Leadership Quarterly*, 10 (2), pp.129–144.

- Isaacs, W. (1993). 'Taking flight: Dialogue, collective thinking, and organisational learning'. *Organizational Dynamics*, 22 (2), pp.24–39.
- Jacobs, L., DiMattio, M., Bishop, T. and Fields, S. (1998). 'The baccalaureate degree in nursing as an entry-level requirements for professional nursing practice'. *Journal of Professional Nursing*, 14 (4), pp.225–233.
- Jakimow, T. (2008). 'Answering the critics: The potential and limitations of the knowledge agenda as a practical response to post-development critiques'. *Progress in Development Studies*, 8 (4), pp.311–232.
- James, C. (2003). 'Designing learning organizations'. *Organizational Dynamics*, 32 (1), pp.46–61.
- Jansen, J., Dusya, V. and Crossan, M. (2009). 'Strategic leadership for exploration and exploitation: The moderating role of environmental dynamism'. *The Leadership Quarterly*, 20, pp.5–18.
- Janssen, M. and van der Voort, H. (2016). 'Adaptive governance: Towards a stable, accountable and responsive government'. *Government Information Quarterly*, 33 (1), pp.1–5.
- Jensen, P. (2005). 'A contextual theory of learning and the learning organization'. *Knowledge and Process Management*, 12 (1), pp.53–64.
- Johnston, C. and Caldwell, B. (2001). 'Leadership and organisational learning in the quest for world class schools'. *The International Journal of Educational Management*, 15 (2), pp.94–103.
- Jones, A. and Hendry, C. (1992). *The learning organization: A review of literature and practice*. Coventry: Centre for Corporate Strategy and Change, University of Warwick.
- Jones, E., Gergen, K. and Jones, R. (1963). 'Tactics of integration among leaders and subordinates in a status hierarchy'. *Psychological Monographs*, 77, pp.1–20.
- Kaplan, R. and Kaiser, R. (2003). 'Developing versatile leadership'. *MIT Sloan Management Review*, 44 (4), pp.19–26.
- Katz, D. and Kahn, R. (1978). *The social psychology of organizations*. 2nd ed. New York: Wiley.
- Kauffman, S. (1995). *At home in the universe: The search for the laws of self-organisation and complexity*. Harmondsworth: Penguin.
- Keefe, J. and Howard, E. (1997). 'The school as a learning organisation'. *NASSP Bulletin*, 81 (589), pp.35–44.
- Keister, A. (2014). 'Thriving teams and change agility: Leveraging a collective state to create organisation agility' A. Shani and D. Noumair (Eds.),. *Research in organisational change and development*, 22, pp.299–333.

- Keller, D. (2015). 'Leadership of international schools: Understanding and managing dualities'. *Educational Management Administration and Leadership*, 43 (5), pp.900–917.
- Khan, N. (2017). 'Adaptive or transactional leadership in current higher education: A brief comparison'. *International Review of Research in Open and Distributed Learning*, 18 (3), pp.178–183.
- Kiedrowski, F. (2006). 'Quantitative assessment of a Senge learning organization intervention'. *The Learning Organization*, 13 (4), pp.369–383.
- Kim, D. (1993). 'The link between individual and organizational learning'. *Sloan Management Review*, pp.37–50.
- King, W. (2001). 'Strategies for creating a learning organization'. *Information Systems Management*, 18 (1), pp.12–20.
- Kirkham, G. (2005). 'Leading and achieving a learning school through developing middle leaders'. *European Journal of Teacher Education*, 28 (2), pp.151–163.
- Kofman, F. and Senge, P. (1993). 'Communities of commitment: The heart of learning organisations'. *Organizational Dynamics*, 22 (2), pp.5–23.
- Kogut, B. and Zander, U. (1992). 'Knowledge of the firm, combinative capabilities, and the replication of technology'. *Organization Science*, 3 (3), pp.383–397.
- Kontopoulos, K. (1993). *The logics of social structure*. Cambridge: Cambridge University Press.
- Kools, M. and Stoll, L. (2016). 'What makes a school a learning organisation?'. Available [Online] at: https://www.oecd-ilibrary.org/education/what-makes-a-school-a-learning-organisation_5jlwm62b3bvh-en. [Last accessed 12 July 2020].
- Kools, M., Stoll, L., George, B., Steijn, B., Bekkers, V. and Gouedard, P. (2020). 'The school as a learning organisation: The concept and its measurement'. *European Journal of Education*, (55), pp.24–42.
- Kruse, S. (2003). 'Remembering as organizational memory'. *Journal of Educational Administration*, 41 (4), pp.332–347.
- Kuzel, A. (1992). 'Sampling in qualitative inquiry'. In F. Benjamin, L. Crabtree, and W. Miller (Eds.), *Doing qualitative research*. Thousand Oaks, CA: Sage, pp.31–44.
- Kvale, S. (1996). *Interviews: An introduction to qualitative research interviewing*. London: Sage.
- Lave, J. and Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge: Cambridge University Press.

- Lawrence, P. and Lorsch, J. (1967). *Organization and environment: Managing differentiation and integration*. Boston MA: Division of Research, Graduate School of Business Administration, Harvard University.
- Le Voi, M. (2000). *Responsibilities, rights, and ethics: Doing academic research*. Milton Keynes: The Open University.
- Leach, R. (1969). *International schools and their role in the field of international education*. Oxford: Pergamon Press.
- LeCompte, M. and Goetz, J. (1982). 'Problems of reliability and validity in ethnographic research'. *Review of Educational Research*, (52), pp.31–60.
- Leithwood, K. and Louis, K. (1998). *Organizational learning in schools*. Lisse: Swets and Zeitlinger.
- Lewin, K. (1947). 'Frontiers in group dynamics: Concept, method and reality in social science, social equilibria and social change'. *Human Relations*, 1, pp.5–41.
- Leymann, H. (1989). 'Towards a new paradigm of learning in organizations'. In H. Leymann and H. Kornbluh (Eds.), *Socialization and learning at work: A new approach to the learning process in the workplace and society*. Aldershot: Avebury, pp.281–299.
- Lichtenstein, B., Uhl-Bien, M., Marion, R., Seers, A., Orton, J. and Schreiber, C. (2006). 'Complexity leadership theory: An interactive perspective on leading in complex adaptive systems'. *Emergence: Complexity & Organization*, 8 (4), pp.2–12.
- Lincoln, Y. and Guba, E. (1985). *Naturalistic inquiry*. Newbury Park, CA: Sage.
- Lincoln, Y., Lynham, S. and Guba, E. (2018). 'Paradigmatic controversies, contradictions, and emerging confluences, revisited'. In N. Denzin and Y. Lincoln (Eds.), *The Sage handbook of qualitative research*. Thousand Oaks, CA: Sage, pp.97–128.
- Loren, G. (2005). 'Thought leadership: The challenge of adaptive leadership'. *New Zealand Management*, Aug 2005, pp.46–48.
- Lubatkin, M., Simsek, Z., Ling, Y. and Veiga, J. (2006). 'Ambidexterity and performance in small to medium sized firms: The pivotal role of top management team behavioural integration'. *Journal of Management*, 32 (5), pp.646–672.
- Lundberg, C. (1995). 'Learning in and by organizations: Three conceptual issues'. *The International Journal of Organizational Analysis*, 3 (1), pp.10–23.
- MacBeath, J. (2005). 'Leadership as distributed: A matter of practice'. *School Leadership and Management*, 25 (4), pp.349–366.
- Male, T. (2016a). 'Analysing qualitative data'. In I. Palaiologou, D. Needham, and T. Male (Eds.), *Doing research in education: Theory and practice*. London: Sage, pp.177–191.

- Male, T. (2016b). 'Digital technologies: Implications for educational organisations and settings in the twenty first century'. *Educational Futures*, 7 (3), pp.5–26.
- Male, T. (2018). *Educating citizens for the 21st century: The role of schools and their leaders*. London: London Centre for Leadership in Learning.
- Male, T. and Burden, K. (2014). 'Access denied? Twenty-first century technology in schools'. *Technology, Pedagogy and Education*, 23 (4), pp.423–437.
- Mantere, A. and Sillince, A. (2007). *Strategic intern as a rhetoric device*. Helsinki: Helsinki University.
- Manville, B. and Ober, J. (2003). 'Beyond empowerment: Building a company of citizens'. *Harvard Business Review*, pp.48–53.
- March, J. (1991). 'Exploration and exploitation in organizational learning'. *Organization Science*, 2 (1), pp.71–87.
- March, J. and Simon, H. (1958). *Organizations*. New York: Wiley.
- Margolis, J. and Ziegert, J. (2016). 'Vertical flow of collective leadership: An examination of the cascade of visionary leadership across levels'. *The Leadership Quarterly*, 27 (2), pp.334–348.
- Marion, R. (1999). *The edge of organization: Chaos and complexity theories of formal social organization*. Newbury Park, CA: Sage.
- Marion, R. and Uhl-Bien, M. (2001). 'Leadership in complex organizations'. *The Leadership Quarterly*, 12 (4), pp.389–418.
- Mark, A. (2006). 'Notes from a small island: Researching organisational behaviour in health care from a UK perspective'. *Journal of Organisational Behaviour*, 27 (7), pp.851–867.
- Marquardt, M. (2011). *Building the learning organization: Achieving strategic advantage through a commitment to learning*. 3rd ed. London: Nicholas Brealey Publishing.
- Marquardt, M. and Reynolds, A. (1994). *The global learning organization: Gaining competitive advantage through continuous learning*. New York: McGraw Hill.
- Marsick, V. and Watkins, K. (2015). *Informal and incidental learning in the workplace*. New York: Routledge.
- Marzano, R. and Waters, T. (2009). *District leadership that works*. Bloomington, IN: Solution Tree Press.
- Marzano, R., Waters, T. and McNulty, B. (2005). *School leadership that works*. Alexandria, VA: Association for Supervision of Curriculum Development.
- Maxwell, J. (1992). 'Understanding and validity in qualitative research'. *Harvard Educational Review*, 62 (3), pp.279–300.

- Mayer, D., Kuenzi, M., Greenbaum, R., Bardes, M. and Salvador, R. (2009). 'How low does ethical leadership flow? Test of a trickle-down model'. *Organisational Behaviour and Human Decision Processes*, 108 (1), pp.1–13.
- Maykut, P. and Morehouse, R. (1994). *Beginning qualitative researchers: A philosophical and practical guide*. Washington DC: Falmer.
- McGill, M. and Slocum, J. (1993). 'The learning organization simplified'. *Organizational Dynamics*, 22.
- McGill, M., Slocum, J. and Lei, D. (1992). 'Management practices in learning organizations'. *Organizational Dynamics*, 21 (1), pp.5–17.
- McLean, J. (2000). *From fragmentation to integration: Towards an integrated model of knowledge management and organisational learning (Working paper 65/00)*. Victoria, Australia: Department of Management, Monash University.
- McLeod, J. (2001). *Qualitative research in counselling and psychotherapy*. London: Sage.
- Mead, G. (1934). *Mind, self, and society*. Chicago, IL: University of Chicago Press.
- Mead, G. (1938). *The philosophy of the act*. Chicago, IL: University of Chicago Press.
- Mead, G. (1932). *The philosophy of the present*. Chicago, IL: Open Court Publishing Company.
- Mechanic, D. (1962). 'Sources of power of lower participants in complex organisations'. *Administrative Science Quarterly*, 7 (3), pp.349–364.
- Meindl, J. and Ehrlich, S. (1987). 'The romance of leadership and the evaluation of organizational performance'. *Academy of Management Journal*, 30 (1), pp.91–109.
- Meindl, J., Ehrlich, S. and Dukerich, J. (1985). 'The romance of leadership'. *Academy of Management Journal*, 30 (1), pp.78–102.
- Mercer, J. (2007). 'The challenges of insider researcher in educational institutions: Wielding a double-edged sword and solving delicate dilemmas'. *Oxford Review of Education*, 33 (1), pp.1–17.
- Mezirow, J. (1990). *Fostering critical reflection in adulthood: A guide to transformative and emancipatory learning*. San Francisco, CA: Jossey-Bass.
- Miles, M., Huberman, A. and Saldana, J. (2020). *Qualitative data analysis: A methods sourcebook*. 4th ed. London: Sage.
- Mills, D. and Friesen, B. (1992). 'The learning organisation'. *European Management Journal*, 10 (2), pp.146–156.

- Miner, A. and Mezias, S. (1996). 'Ugly duckling no more: Past and futures of organizational learning research'. *Organization Science*, 7 (1), pp.88–100.
- Moloi, K., Grobler, B. and Gravett, S. (2006). 'Educators' perceptions of the school as a learning organization in the Vanderbijlpark-North District'. *South African Journal of Education*, 22 (2), pp.88–94.
- Morgan, G. (2006). *Images of an organization*. London: Sage Publications Ltd.
- Morris, W. ed. (1969). *The American heritage dictionary of English language*. Boston, MA: Houghton Mifflin Co.
- Mowday, R. (1978). 'Exercise of upward influence in organizations'. *Administrative Science Quarterly*, 23 (1), pp.137–156.
- Mulder, P. (2017). 'Adaptive leadership' [Internet]. Available [Online] at: <https://www.toolshero.com/leadership/adaptive-leadership/>. [Last accessed 9 December 2020].
- Nair, K. (2001). 'Adaptations to creation: Progress of organisational learning and increasing complexity in learning systems'. *Systems Research and Behavioural Science*, 18 (6), pp.505–521.
- Nevis, E., DiBella, A. and Gould, J. (1995). 'Understanding organizations as learning systems'. *Sloan Management Review*, 36 (2), pp.73–85.
- Newhofer, F. (2003). 'Systems thinking in education'. *Forum*, 45 (2), pp.75–77.
- Ng, P. (2004). 'The learning organisation and the innovative organisation'. *Human Systems Management*, 23 (2), pp.93–100.
- Nonaka, I. (1994). 'The dynamic theory of organizational knowledge creation'. *Organization Science*, 5 (1), pp.14–37.
- Northouse, P. (2001). *Leadership: Theory and practice*. 2nd ed. London: Sage.
- Oakley, A. (1981). 'Interviewing women: A contradiction in terms'. In H. Roberts (Ed.), *Doing feminist research*. London: Routledge, pp.30–61.
- Oberle, K. (2002). 'Ethics in qualitative health research'. *Annals (Royal College of Physicians and Surgeons of Canada)*, 35 (8), pp.563–566.
- O'Connor, J. and McDermott, I. (1997). *The art of system thinking: Essential skills for creativity and problem-solving*. London: Thorsons.
- OECD (2020). 'COVID-19' [Internet]. Available [Online] at: <https://oecdutoday.com/coronavirus-school-closures-student-equity-inclusion/>. [Last accessed 26 October 2020].
- OECD (2013). *Leadership for 21st century learning: Educational research and innovation*. OECD Publishing. Available [Online] at: <http://dx.doi.org/10.1787/9789264205406-en>. [Last accessed 14 February 2020].
- OECD (2015). *Schooling redesigned: Towards innovative learning systems*. Paris: OECD Publishing. Available [Online] at:

<http://dx.doi.org/10.1787/9789264245914-en>. [Last accessed 15 May 2020].

- OECD (2018). *The future of education and skills: Education 2030*. Paris: OECD Publishing.
- O'Keefe, T. (2002). 'Organizational learning: A new perspective'. *Journal of European Industrial Training*, 26 (2–4), pp.130–141.
- Örtenblad, A. (2002). 'A typology of the idea of learning organization'. *Management Learning*, 33 (2), pp.213–230.
- Örtenblad, A. (2001). 'On differences between organizational learning and learning organization'. *The Learning Organization*, 8 (3), pp.125–133.
- Örtenblad, A. (2004). 'The learning organization: Towards an integrated model'. *The Learning Organization*, 11 (2), pp.129–144.
- Örtenblad, A. (2015). 'Towards increased relevance: Context-adapted models of the learning organization'. *The Learning Organization*, 22 (3), pp.163–181.
- Örtenblad, A. (2018). 'What does 'learning organization' mean?'. *The Learning Organization*, 25 (3), pp.150–158.
- Orton, J.D. and Weick, K.E. (1990). 'Loosely coupled systems: A reconceptualisation'. *The Academy of Management Review*, 15 (2), pp.203–223.
- Osborn, R., Hunt, J. and Jauch, L. (2002). 'Toward a contextual theory of leadership'. *Leadership Quarterly*, 13, pp.797–837.
- Paletta, A. (2011). 'Managing student learning: Schools as multipliers of intangible resources'. *Educational Management Administration and Leadership*, 39 (6), pp.733–750.
- Papachroni, A., Heracleous, L. and Paroutis, S. (2016). 'In pursuit of ambidexterity: Managerial reactions to innovation-efficiency tensions'. *Human Relations*, 69 (6), pp.1791–1822.
- Park, H., Ribiere, V. and Schulte, W. (2004). 'Critical attributes of organizational culture that promote knowledge management technology implementation success'. *Journal of Knowledge Management*, 8, pp.106–117.
- Park, J. (2008). 'Validation of Senge's learning organization model with teachers of vocational high schools at the Seoul Megalopolis'. *Asia Pacific Education Research*, 9 (3), pp.270–284.
- Parks, S. (2005). *Leadership can be taught: A bold approach for a complex world*. Cambridge, MA: Harvard Business School Publishing.
- Parry, K. (1999). 'Enhancing adaptability: Leadership strategies to accommodate change in local government settings'. *Journal of Organizational Change Management*, 12 (2), pp.134–156.

- Parry, K. (2011). 'Leadership and organization theory'. In A. Bryman, D. Collinson, K. Grint, B. Jackson, and M. Uhl-Bien (Eds.), *The Sage handbook of leadership*. London: Routledge, pp.53–70.
- Pearce, C. and Conger, J. (2003). *Shared leadership: Reframing the hows and whys of leadership*. Thousand Oaks, CA: Sage.
- Pedler, M., Boydell, T. and Burgoyne, J. (1989). 'Towards the learning company'. *Management Learning*, 20 (1), pp.1–8.
- Pedler, M. and Burgoyne, J. (2017). 'Is the learning organization still alive?'. *The Learning Organization*, 24 (2), pp.119–126.
- Pedler, M., Burgoyne, J. and Boydell, T. (1991). *The learning company: A strategy for sustainable development*. Maidenhead: McGraw Hill.
- Peters, T. (1992). *Liberation management*. New York: Knopf.
- Ponisch, A. (1987). 'Special needs and the International Baccalaureate: A study of the needs for and the development of alternative courses to the International Baccalaureate'. MSc Thesis. Oxford: University of Oxford.
- Popper, M. and Lipschitz, R. (2000). 'Organizational learning; Mechanisms, culture, and feasibility'. *Management Learning*, 31 (2), pp.181–196.
- Portfeld, L. (2006). *The university: A learning organisation? An illuminative review based on system theory*. Karlstad: Karlstad University Studies.
- Prigogine, I. (1997). *The end of uncertainty*. New York: Free Press.
- Probst, G., Raisch, S. and Tushman, M. (2011). 'Ambidextrous leadership'. *Organizational Dynamics*, 40, pp.326–334.
- PWC (2017). *Workforce of the future: The competing forces shaping 2030*. London: Price Waterhouse Coopers.
- Pyett, P. (2003). 'Validation of qualitative research in the 'real world''. *Qualitative Health Research*, 13 (8), pp.1170–1179.
- Redding, J. (1997). 'Hardwiring the learning organization'. *Training and Development*, 15 (4), pp.61–67.
- Redding, J. and Catalanello, R. (1994). *Strategic readiness: The making of the learning organization*. London: Jossey-Bass.
- Reeves, M. and Deimler, M. (2011). 'Adaptability: The new competitive advantage'. *Harvard Business Review*, 89 (7/8), pp.134–141.
- Regine, B. and Lewin, R. (2000). 'Leading at the edge: How leaders influence complex systems'. *Emergence: A Journal of Complexity Issues in Organizations and Management*, 2 (2), pp.5–23.
- Retna, K. (2002). 'The fifth discipline in a highly disciplined Singapore: Innovative learning organizations and national culture'. *Innovation Enterprise*, 4 (1–3), pp.215–226.

- Retna, K. and Jones, D. (2013). 'The 'learning organization' and Singapore culture'. *The Learning Organization*, 20 (4/5), pp.338–351.
- Retna, K. and Tee, N. (2006). 'The challenges of adopting the learning organization philosophy in a Singapore school'. *International Journal of Educational Management*, 20 (2), pp.140–152.
- Reynolds, R. and Ablett, A. (1998). 'Transforming the rhetoric of organizational learning to the reality of the learning organisation'. *The Learning Organization*, 5 (1), pp.24–35.
- Richardson, K. and Cilliers, P. (2001). 'Special editors introduction: What is complexity science? A view from different directions'. *Emergence: A Journal of Complexity Issues in Organizations and Management*, 3 (1), pp.5–23.
- Robson, C. and McCarten, K. (2015). *Real world research*. 4th ed. Chichester: Wiley.
- Romme, A. and Van Witteloostuijn, A. (1999). 'Circular organising and triple loop learning'. *Journal of Organizational Change Management*, 12 (5), pp.439–454.
- Rose, P. (1985). *Writing on women: Essays in a renaissance*. Middletown, CT: Wesleyan University Press.
- Rosing, K., Frese, M. and Bausch, A. (2011). 'Explaining the heterogeneity in the leadership innovation relationship: Ambidextrous leadership'. *The Leadership Quarterly*, 22 (5), pp.956–974.
- Roulston, K. (2001). 'Data analysis and 'theorising as ideology''. *Qualitative Research*, 1, pp.279–302.
- Rowden, R. (2001). 'The learning organization and change'. *Advanced Management Journal*, 66 (3), pp.11–20.
- Rubin, H. and Rubin, I. (2005). *Qualitative interviewing: The art of hearing data*. 2nd ed. London: Sage.
- Ryan, G. and Bernard, R. (2000). 'Data management and analysis methods'. In N. Denzin and Y. Lincoln (Eds.), *Handbook of qualitative research*. Thousand Oaks, CA: Sage, pp.769–802.
- Saldana, J. (2015). *The coding manual for qualitative researchers*. 3rd ed. London: Sage.
- Sandelowski, M. (2004). 'Using qualitative research'. *Qualitative Health Research*, 14, pp.1366–1386.
- Sanderson, J. (1981). 'International schooling: The mobile pupil and his educational needs'. MSc Thesis. Oxford: University of Oxford.
- Santa, M. (2015). 'Learning organization review: A 'good' theory perspective'. *The Learning Organization*, 22 (5), pp.242–270.

- Santa, M. and Nurcan, S. (2015). 'Learning organization modelling patterns'. *Knowledge Management Research and Practice*, 14 (1), pp.106–125.
- Santonus, M. (1998). 'Simple, yet complex'. Available [Online] at: www.cio.com/archive/enterprise/041598_qanda_content.html. [Last accessed 10 February 2021].
- Savin-Baden, M. and Howell-Major, C. (2013). *Qualitative research: The essential guide to theory and practice*. Abingdon: Routledge.
- Sawyer, K. (2008). 'Optimising learning: Implications of learning sciences research'. In *Innovating to learning, learning to innovate*. Paris: OECD Publishing.
- Schechter, C. (2008). 'Organizational learning mechanisms: The meaning, measure and implications for school improvement'. *Educational Administration Quarterly*, 44 (2), pp.155–186.
- Schechter, C. and Mowafaq, Q. (2012). 'Toward an organizational model of change in elementary schools: The contribution of organizational learning mechanisms'. *Educational Administration Quarterly*, 48 (1), pp.116–153.
- Schein, E. (2010). *Organisational culture and leadership*. 4th ed. San Francisco: Wiley.
- Schilit, W. and Locke, E. (1982). 'A study of upward influence in organizations'. *Administrative Science Quarterly*, 27 (2), pp.304–316.
- Schlechty, P. (2009). *Leading for learning: How to transform schools into learning organizations*. San Francisco, CA: Jossey-Bass.
- Schlechter, C. and Mowafaq, Q. (2013). 'From illusion to reality: Schools as learning organizations'. *International Journal of Educational Management*, 27 (5), pp.505–516.
- Schleicher, A. (2020). 'Educating learners for their future, not our past'. *Educating learners for their future, not our past*. Available [Online] at: <https://blogs.iadb.org/educacion/en/educatingforthefuture/>. [Last accessed 14 July 2020].
- Schleicher, A. ed. (2012). *Preparing teachers and developing school leaders for the 21st century: Lessons from around the world*. Paris: OECD Publishing.
- Schleicher, A. (2018). *World class: How to build a 21st century school system*. Paris: OECD Publishing.
- Schley, W. and Schratz, M. (2011). 'Developing leaders, building networks, changing schools through system leadership'. In T. Townsend and J. MacBeath (Eds.), *International handbook of leadership for learning*. Dordrecht: Springer, pp.267–295.
- Schneider, M. (2002). 'A stakeholder model of organizational leadership'. *Organization Science*, 13 (2), pp.209–220.

- Schön, D. (1973). *Beyond the stable state: Public and private learning in a changing society*. Harmondsworth: Penguin.
- Schulze, J. and Pinkow, F. (2020). 'Leadership for organizational adaptability: How enabling leaders create adaptive space'. *Administrative Sciences*, 10 (37), pp.1–22.
- Schwab, K. (2016). *The fourth industrial revolution*. London: Portfolio Penguin.
- Schwandt, T. (2007). *The Sage dictionary of qualitative inquiry*. 3rd ed. Thousand Oaks, CA: Sage.
- Schwandt, T. (2003). 'Three epistemological stances for qualitative inquiry'. In N. Denzin and Y. Lincoln (Eds.), *The landscape of qualitative research: theories and issues*. Thousand Oaks, CA: Sage, pp.292–331.
- Searl, J. (1983). *Intentionality: An essay in the philosophy of mind*. Cambridge: Cambridge University Press.
- Seers, A. (2004). 'Leadership and flexible organisational structures' G. Graen (Ed.), *New frontiers of leadership*, 2, pp.1–31.
- Selznick, P. (1957). *Leadership in administration*. New York: Harper and Row.
- Senge, P. (2006). *The fifth discipline: The art and practice of the learning organisation*. 2nd ed. London: Random House.
- Senge, P. (1990). *The fifth discipline: The art and practice of the learning organisation*. 1st ed. New York: Doubleday.
- Senge, P., Cambron-McCabe, N., Lucas, T., Smith, B., Dutton, J. and Kleiner, A. (2000). *Schools that learn: A fifth discipline fieldbook for educators, parents and everyone who cares about education*. New York: Doubleday.
- Senior, B. and Swailes, S. (2010). *Managing organisational change*. London: SOAS University of London.
- Sergiovanni, T. (2001). *Leadership: What's in it for schools?* London: Routledge.
- Servoz, M. (2016). *The future of work? Work of the future!* Brussels: European Political Strategy Centre.
- Shacklock, G. and Smyth, J. (1998). *Being reflexive in critical educational and social research*. London: Falmer Press.
- Shamir, B. and Howell, J. (1999). 'Organizational and contextual influences on the emergence and effectiveness of charismatic leadership'. *Leadership Quarterly*, 10 (2), pp.257–283.
- Sikes, P. (2008). 'Researching research culture: The case of new universities'. In P. Sikes and A. Potts (Eds.), *Researching education from the inside: Investigations from within*. London: Routledge, pp.144–158.
- Silins, H. and Mulford, B. (2002). 'Schools as learning organisations: The case for system, teacher and student learning'. *Journal of Educational Administration*, 40 (5), pp.425–446.

- Silins, H., Mulford, B. and Zarins, S. (2002). 'Organisational learning and school change'. *Education Administration Quarterly*, 38 (5), pp.613–642.
- Silverman, D. (2017). *Doing qualitative research*. 5th ed. London: Sage.
- Silverman, D. (2000). *Doing qualitative research: A practice handbook*. London: Sage.
- Simon, H. (1947). *Administrative behaviour*. New York: Macmillan.
- Simon, H. (1991). 'Bounded rationality and organizational learning'. *Organization Science*, 2 (1), pp.125–34.
- Simons, H. and Usher, R. eds. (2000). *Situated ethics in educational research*. London: Routledge Falmer.
- Slater, S. and Narver, J. (1995). 'Market orientation and the learning organization'. *The Journal of Marketing*, 59 (3), pp.63–74.
- Smircich, L. and Morgan, G. (1982). 'Leadership: The management of meaning'. *Journal of Applied Behavioural Science*, 18, pp.257–273.
- Smith, J. (2003). *Qualitative psychology: A practical guide to research methods*. London: Sage.
- Smith, J. and Osborn, M. (2008). 'Interpretive phenomenological analysis'. In J. Smith (Ed.), *Qualitative psychology: A practical guide to research methods*. London: Sage, pp.53–80.
- Smith, M. (1998). *Social science in question*. London: Sage/Open University.
- Smith, P. and Tosey, P. (1999). 'Assessing the learning organization: Part 1 - theoretical foundations'. *The Learning Organization*, 6 (2), pp.70–75.
- Smyth, A. and Holian, R. (2008). 'Credibility issues within research from inside organisations'. In P. Sikes and A. Potts (Eds.), *Researching education from the inside: Investigations from within*. London: Routledge, pp.33–48.
- Snell, R. and Chak, A. (1998). 'The learning organization: Learning and empowerment for whom?'. *Management Learning*, 29 (3), pp.337–364.
- Sparkes, A. (2001). 'Myth #94: Qualitative health researchers will agree about validity'. *Qualitative Health Research*, 11, pp.538–552.
- Starkey, K. (1996). *How organisations learn*. London: International Thompson Press.
- Starks, H. and Trinidad, S. (2007). 'Choose your method: A comparison of phenomenology, discourse analysis, and grounded theory'. *Qualitative Health Research*, 17, pp.1372–1380.
- Stegall, M. (2003). 'Running like a bottled tornado'. *Quality Progress*, 36 (1), pp.45–50.
- Sterman, J. (1994). 'Learning in and about complex systems'. *System Dynamics Review*, 10, pp.291–330.

- Stobie, T. (2016). 'The curriculum battleground'. In M. Hayden and J. Thompson (Eds.), *International schools: Current issues and future prospects*. Oxford: Symposium Books, pp.53–70.
- Stodgill, R. (1948). 'Personal factors associated with leadership: A survey of the literature'. *Journal of Psychology*, 25, pp.35–71.
- Stoll, L. (2009). 'Capacity building for school improvement or creating capacity for learning? A changing landscape'. *Journal of Educational Change*, 10, pp.115–127.
- Stoll, L. (2020). 'Creating capacity for learning: Are we there yet?'. *Journal of Educational Change*, 21, pp.421–430.
- Stoll, L. (2018). 'Knowledge animation: Let's bring it to life' [Internet]. Available [Online] at: <https://www.knaer-recreae.ca/index.php/knowledge-hub/kmb-blog/9-tips-from-the-experts/423-knowledge-animation-let-s-bring-it-to-life>. [Last accessed 11 November 2020].
- Stoll, L. (1999). 'Realising our potential: Understanding and developing capacity for lasting improvement'. *School Effectiveness and School Improvement*, 10 (4), pp.503–532.
- Stoll, L. and Earl, L. (2003). 'Making it last: Building capacity for sustainability'. In B. Davies and J. West-Burnham (Eds.), *The handbook of educational leadership and management*. London: Pearson Education, pp.491–504.
- Stoll, L. and Kools, M. (2017). 'The school as a learning organisation: a review revisiting and extending a timely concept'. *Journal of Professional Capital and Community; Bingley*, 2 (1), pp.2–17.
- Strain, M. (2000). 'Schools in a learning society: New purposes and modalities of learning in late modern society'. *Educational Management and Administration*, 28 (3), pp.281–298.
- Swieringa, J. and Wierdsma, A. (1994). *Becoming a learning organization*. Cambridge, MA: Addison-Wesley.
- Sylvester, R. (2015). 'Historical resources for research in international education (1851-1950)'. In M. Hayden, J. Levy, and J. Thompson (Eds.), *The Sage handbook of research in international education*. London: Sage, pp.11–24.
- Sylvester, R. (2002). 'The 'first' international school'. In M. Hayden, J. Thompson, and G. Walker (Eds.), *International education in practice: Dimensions for national and international schools*. London: Kogan Page, pp.3–17.
- Taylor, A. (2007). 'Learning to become researching professionals: The case of the doctorate of education'. *International Journal of Teaching and Learning in Higher Education*, 19 (2), pp.154–166.
- Taylor, C. (1985). 'Self-interpreting animals'. *Philosophical papers Vol 1: Human agency and language*, 1, pp.45–76.

- Taylor, G., Templeton, G. and Baker, L. (2010). 'Factors influencing the success of organisational learning implementation: A policy facet perspective'. *International Journal of Management Reviews*, 12, pp.353–364.
- Taylor, G. and Ussher, J. (2001). 'Making sense of S&M: A discourse analytic account'. *Sexualities*, 4, pp.293–314.
- Taylor, M. (2017). *Good work: The Taylor review of modern working practice*. London: Department for Business, Energy, and Industrial Strategy.
- Teece, D. (2012). 'Dynamic capabilities: Routines versus entrepreneurial action'. *Journal of Management Studies*, 49 (8), pp.1395–1401.
- Teece, D., Pisano, G. and Shuen, A. (1997). 'Dynamic capabilities and strategic management'. *Strategic Management Journal*, 18, pp.509–533.
- Thomas, K. and Allen, S. (2006). 'The learning organization: A meta-analysis of themes in literature'. *Learning Organization*, 13 (2), pp.123–139.
- Thompson, J. (1967). *Organizations in action: Social science bases of administrative theory*. New York: McGraw Hill.
- Tichnor-Wagner, A., Harrison, C. and Cohen-Vogel, L. (2016). 'Cultures of learning in effective high schools'. *Education Administration Quarterly*, 52 (4), pp.602–642.
- Tierney, W. and Corwin, Z. (2007). 'The tensions between academic freedom and institutional review boards'. *Qualitative Inquiry*, 13 (3), pp.388–398.
- Timperley, H., Wilson, A., Barr, H. and Fung, I. (2007). *Teacher professional learning and development: Best evidence synthesis iteration*. Wellington, N.Z.: Ministry of Education and University of Auckland.
- Tolich, M. (2004). 'Internal confidentiality: When confidentiality assurances fail relational informants'. *Qualitative Sociology*, 27 (1), pp.101–106.
- Tosey, P., Visser, M. and Saunders, M. (2011). 'The origins and conceptualisations of triple loop learning: A critical review'. *Management Learning*, 43 (3), pp.291–307.
- Trowler, P. (2011). 'Researching your own institution: Higher education'. Available [Online] at: <http://www.bera.ac.uk/resources/researching-you-own-institution-higher-education>. [Last accessed 25 October 2020].
- Tsang, E. (1997). 'Organizational learning and the learning organisation: A dichotomy between descriptive and prescriptive research'. *Human Relations*, 50 (1), pp.73–89.
- UCL (2020). *Doctorate in Education (EdD): Programme Handbook 2021-21*. London: UCL.
- Uhl-Bien, M. and Arena, M. (2017). 'Complexity leadership: Enabling people and organizations for adaptability'. *Organizational Dynamics*, 46 (1), pp.9–20.

- Uhl-Bien, M. and Arena, M. (2018). 'Leadership for organizational adaptability: A theoretical synthesis and integrative framework'. *The Leadership Quarterly*, 29 (1), pp.89–104.
- Uhl-Bien, M. and Marion, R. (2009). 'Complexity leadership in bureaucratic forms or organizing: A meso model'. *The Leadership Quarterly*, 20 (4), pp.631–650.
- Uhl-Bien, M., Marion, R. and McKelvey, B. (2007). 'Complexity leadership theory: Shifting leadership from the industrial age to the knowledge era'. *The Leadership Quarterly*, 18 (4), pp.298–318.
- Ulrich, D., Jick, T. and Glinow, M. (1993). 'High impact learning: Building and diffusing learning capability'. *Organizational Dynamics*, 22 (2), pp.52–66.
- Unger, R. (2019). *The knowledge economy*. London: Verso.
- Universities UK (2018). *Solving future skills challenges*. London: UK Universities.
- Van Maurik, J. (2001). *Writers on leadership*. London: Penguin.
- Van Velsor, E. (2003). *Learning new ways: A conversation with Ronald Heifetz*. Cambridge, MA: Center for Creative Leadership, Harvard University.
- Vera, D. and Crossan, M. (2004). 'Strategic leadership and organisational learning'. *Academy of Management Review*, 29, pp.222–240.
- Vroom, V. and Yetton, P. (1973). *Leadership and decision making*. Pittsburgh: University of Pittsburgh Press.
- Vygotsky, L. (1962). *Thought and language*. Cambridge, MA: MIT Press.
- Wainwright, D. (1997). 'Can sociological research be qualitative, critical, and valid?'. *Qualitative Report*, 3 (2), pp.1–17.
- Wai-Yin, J. (2004). 'Implementation of the learning organisation concept in school management: A literature review'. *Studies in Educational Policy and Educational Philosophy*, 1, pp.1–29.
- Walker, S. (2012). *Effective social work with children, young people, and families: Putting systems theory into practice*. London: Sage.
- Wallace, R., Engel, D. and Mooney, J. (1997). *The SLO: A guide to vision-based leadership*. Thousand Oaks, CA: Corwin Press.
- Walsh, J. and Ungson, G. (1991). 'Organizational memory'. *Academy of Management Review*, 16 (1), pp.57–91.
- Walumbwa, F., Avolio, B., Gardner, W., Wernsing, T. and Peterson, S. (2008). 'Authentic leadership: Development and validation of a theory-based measure'. *Journal of Management*, 34 (1), pp.89–126.
- Wang, C. and Ahmed, P. (2003). 'Organizational learning: A critical review'. *The Learning Organization*, 10 (1), pp.8–17.

- Ward-Schofield, J. (1993). 'Increasing the generalisability of qualitative research'. In M. Hammersley (Ed.), *Social research: Philosophy, politics, and practice*. London: Sage, pp.200–225.
- Watkins, K. and Marsick, V. (1996). *In action: Creating the learning organisation*. Alexandria: American Society for Training and Development.
- Watkins, K. and Marsick, V. (1993). *Sculpting the learning organization: Lessons in the art and science of systemic change*. San Francisco: Jossey-Bass.
- Webb, E. (1915). 'Character and intelligence'. *British Journal of Psychology Monograph (Suppl. 3)*, pp.1–113.
- Weber, M. (1947). *The theory of social and economic organisation*. New York: Free Press.
- Weick, K. (1976). 'Educational organizations as loosely coupled systems'. *Administrative Science Quarterly*, 21 (1), pp.1–19.
- Weick, K. (1979). *The social psychology of organizing*. Reading, MA: Addison-Wesley.
- Weick, K. and Roberts, K. (1993). 'Collective mind in organizations: Heedful interrelating on flight decks'. *Administrative Science Quarterly*, 38 (3), pp.357–381.
- Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity*. Cambridge: Cambridge University Press.
- West, P. (1994). 'The concept of the learning organization'. *Journal of European Industrial Training*, 18 (1), pp.15–21.
- West-Burnham, J. (2004). *Building leadership capacity: Helping leaders learn*. Nottingham: National College for School Leadership.
- Wheatley, M. (1992). *Leadership and the new science: Learning about organisation from an orderly universe*. San Francisco, CA: Berrett-Koehler Publishers, Inc.
- Whittlemore, R., Chase, S. and Mandle, C. (2001). 'Validity in qualitative research'. *Qualitative Health Research*, 11, pp.522–537.
- Wick, C. and Leon, L. (1995). 'From ideas to action: Creating a learning organisation'. *Human Resource Management*, 34 (2), p.299.
- Wilson, J., North, M., Morris, D. and McClellan, R. (2020). 'Rethinking implicit leadership theories: Tomorrow's leaders are collective, generative, and adaptive'. *Journal of Leadership Studies*, 14 (3), pp.24–32.
- Winby, S. and Worley, C. (2014). 'Management processes for agility, speed, and innovation'. *Organizational Dynamics*, 43 (3), pp.225–234.
- World Bank (2013). *World Development Report 2013: Jobs*. Washington DC: World Bank Publishing.

- World Economic Forum (2019). *Leading through the Fourth Industrial Revolution: Putting people at the centre*. Geneva: World Economic Forum.
- World Economic Forum (2016). *The future of jobs report 2016*. Geneva: World Economic Forum.
- World Economic Forum (2018). *The future of jobs report 2018*. Geneva: World Economic Forum.
- Worley, C. and Lawler, E. (2010). 'Agility and organisation design: A diagnostic framework'. *Organizational Dynamics*, 39 (2), pp.194–204.
- Yang, B., Watkins, K. and Marsick, V. (2004). 'The construct of the learning organization: Dimensions, measurement and validation'. *Human Resource Development Quarterly*, 15 (1), pp.31–55.
- Yanow, D. (1995). 'Writing organizational tales: Four authors and their stories about culture'. *Organization Science*, 6 (2), pp.225–237.
- Yardley, L. (2017). 'Demonstrating the validity of qualitative research'. *The Journal of Positive Psychology*, 12 (3), pp.295–296.
- Yardley, L. (2000). 'Dilemmas in qualitative health research'. *Psychology and Health*, 15 (2), pp.215–228.
- Yin, R. (2016). *Qualitative research from start to finish*. New York: The Guildford Press.
- Yukl, G. (1999). 'An evaluation of conceptual weaknesses in transformational and charismatic leadership theories'. *Leadership Quarterly*, 10, pp.285–305.
- Yukl, G. (2009). *Leadership in organisations*. 7th ed. London: Pearson.
- Yukl, G. and Falbe, C. (1990). 'Influence tactics and objectives in upward, downward, and lateral influence attempts'. *Journal of Applied Psychology*, 75 (2), pp.132–140.
- Yuthas, K., Dillard, J. and Rogers, R. (2004). 'Beyond agency and structure: Triple-loop learning'. *Journal of Business Ethics*, 51 (2), pp.229–243.
- Zaccaro, S. and Banks, D. (2004). 'Leader visioning and adaptability: Bridging the gap between research and practice on developing the ability to manage change'. *Human Resource Management*, 43 (4), pp.367–380.
- Zaccaro, S. and Klimoski, R. (2001). 'The nature of organizational leadership: An introduction'. In S. Zaccaro and R. Klimoski (Eds.), *The nature of organizational leadership: Understanding the performance imperatives confronting today's leaders*. San Francisco, CA: Jossey-Bass.

Appendix 1: Evidence-informed policy and practice

The content outlined below has been used within the organisation in which the data collection took place. The rationale for including is that it is an understanding that pre-exists this study within the organisation.

Source:

<u>Chapter title</u>	Evidence-informed policy and practice
<u>Authors</u>	Kevan Collins and Robbie Coleman
<u>Book title</u>	School leadership and education system reform
<u>Book editors</u>	Peter Earley and Toby Greany
<u>Publisher</u>	Bloomsbury Academic (2017)

Key premise

Educational leadership is about decision making

Definition of evidence

'Knowledge generated by external research that is transparent and rigorous.'
(Collins & Coleman, 2017, p.18)

Rationale

'By collecting better evidence about what works best and establishing a culture where this evidence is used as a matter of routine, we can improve the outcomes for children.' (Goldacre, 2013, p.7)

Leadership in an evidence-rich system

Collins and Coleman (2017) outline two distinctive uses of evidence:

1. Evidence for accountability
2. Evidence for improvement

Evidence for accountability

Leaders who use evidence for accountability will view it as a tool that can help demonstrate to others that their school is fulfilling its obligations to its students. This is often characterised by retrospectively using evidence to justify decisions that have been already made.

'The evidence for accountability approach may be pragmatic in the short term, but necessarily precludes the possibility that evidence might improve learning; clearly, practices will not become more effective as a result of being re-labelled *evidence-based* after the event.' (Collins & Coleman, 2017, p.22)

Evidence for improvement

Evidence for improvement requires a leader to engage with evidence throughout the decision-making process, rather than simply after the event. In this model, evidence acts as a leader's link to the outside world, both to schools within their system and further afield.

A key point is that this model does not seek to prescribe how to act but rather to help leaders understand how others may have solved similar problems. This way of working is aligned with 'high-autonomy systems'.

'A leader using evidence for improvement will be aware that a previous record of effectiveness can never guarantee future success and prepare on the basis of this fact. An evidence-informed decision-making process gives power to leaders by providing the strongest justification for practices that they have investigated, implemented and found to be effective.' (Collins & Coleman, 2017, p.23)

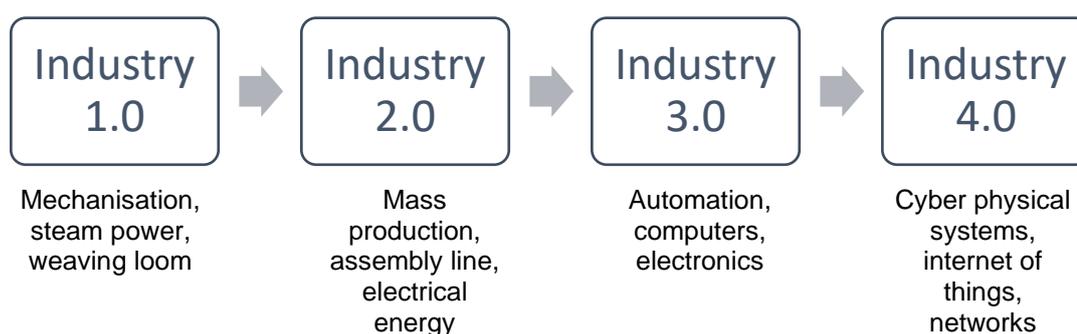
Appendix 2: The education context

The content of this appendix is a summary of information previously shared with school leaders in the organisation where data collection took place via written papers and conference input over several years - all separate to the research for this doctoral thesis.

This section draws on the work of academics, commentators and international research-based organisations. Many cross-disciplinary commentators assert that we are in a new context, one with a great many more challenges and potential opportunities than society has previously known.

Humankind is facing unprecedented revolutions, all our old stories are crumbling, and no new story has so far emerged to replace them.
(Harari, 2018, p.301)

This so called 'revolution' has been put into an historical context by positing it as the Fourth Industrial Revolution (Schwab, 2016). The term revolution is used to provide a comparison to other revolutions which have occurred throughout history. These revolutions have tended to denote a period in history when new technologies or new ways of perceiving the world have impacted on economic systems and social structures. I summarise the headline characteristics of these revolutions in the diagram below.



Prior to the first industrial revolution, societies relied mainly on agriculture and farming with the combined efforts of animals and humans for the purposes of production, communication, and transportation. This changed significantly in the period 1760-1840 with the construction of railroads and the invention of the steam engine, known as the Industrial Revolution.

Retrospectively, cited at the First Industrial Revolution. The late 19th and early 20th centuries saw the advent of mass production, linked to use of electricity, leading to the assembly line, the Second Industrial Revolution. The next major change began in the 1960s with the use of mainframe computing, moving to the use of personal computers and eventually the internet, the Third Industrial Revolution (Schwab, 2016).

The Fourth Industrial Revolution, a term invented by Schwab (ibid) is now used widely in academic and popular literature to identify the current period of history. This is most often linked to the impact of digital technologies on the workforce, economy, and society.

Taking an historic view, one can immediately question why such prominence is afforded the Fourth Industrial Revolution, given that the charting of history shows that the previous three revolutions have been a significant part of societal history. A range of commentators argue that there is something different and more significant about the Fourth Industrial Revolution. The World Economic Forum asserts that the pace of change is now different from any other time in history (World Economic Forum, 2018). This view is supported with a general consensus that the pace is accelerating (Universities UK, 2018; Servoz, 2016).

There appears broad agreement by a range of authors and organisations outlining some of the specific features and challenges of this period (Schwab, 2016; Universities UK, 2018; World Economic Forum, 2018; World Economic Forum, 2019). Despite a wide search of literature, there do not appear any opposing views of the fact that this period of history is both significant and poses a great many issues which need to be dealt with at society and global level.

A few of the key features which stand out from the literature is that a defining feature of the current context is the pace or velocity of change (Schwab, 2016). This is combined with change which appears exponential rather than linear and far more all-encompassing in its scope (Universities UK, 2018). Historians cite, with ease, the driver, or drivers of change in the first three industrial revolutions. Whilst on first sight this seems relatively

straightforward for the Fourth Industrial Revolution, with the popular press citing technology as the sole driver, many authors and organisations take a broader view. For the avoidance of doubt, every author cited in this literature and every author found during the literature search cites technology as either the main driver or one of the main drivers for change. Rather than focusing directly on the drivers, the OECD (2018) identify three categories of unprecedented challenge being social, economic and environmental; viewing the drivers of these as being accelerating globalisation and the pace of technological development. Bakhshi (2017) provides more granular detail and notes that in addition to automation driven by technology, the other key trends in this period include issues of sustainability, urbanisation, growing inequality, political uncertainty, globalisation and demographic change. Thinking particularly about this period, especially within the context of the world of work, a global study by PWC (2017) identifies five megatrends, summarised below, which are central to all decision making in this period.



Technological breakthroughs
Rapid advances in technological innovation



Demographic shifts
The changing size, distribution and age profile of the world's population



Rapid urbanisation
Significant increase in the world's population moving to live in cities



Shifts in global economic power
Power shifting between developed and developing countries



Resource scarcity and climate change
Depleted fossil fuels, extreme weather, rising sea levels and water shortages

After reviewing a range of authors, the most commonly cited view is that the two main drivers of change appear to be globalisation and the rapid advances in technology (OECD, 2018; World Economic Forum, 2019; Male, 2018). The World Economic Forum (2019) asserts as a result of these two drivers there is a transformation in what we have known as the norms of civic space and also the world of work. As a result of fast paced development in digital technologies and globalisation there is far reaching impact on the world of work. These developments are directly relevant for schools and education institutions when thinking about curricular and assessment choices to prepare young people adequately for future employment.

Despite a wide search, there is little written in this area where authors or organisations disagree. Whilst some of the detail differs, the over-arching view presented is relatively consistent. All present a view that the world of

work will, without doubt, change significantly because of the drivers of change. This has impact given that jobs are the cornerstone of our economic and social lives; they give people meaning, self-respect, income and the chance to make societal contributions (Banerjee & Duflo, 2018; World Bank, 2013; Taylor, 2017). An often cited fact is that students at school today will work in jobs that do not yet exist (World Economic Forum, 2016; OECD, 2018). From the literature, three consistent themes or predictions emerge with relative consistency.

1. There will be a disruption of the world of work as we currently know it (Universities UK, 2018). The range of occupations will change with some occupations growing as a percentage of the workforce and others shrinking or disappearing (Bakhshi et al., 2017). The prediction by Servoz (2016) is that future generations will have a broader range of career choices.
2. There will be a new expectation that switching between work roles will become the expected norm. It is also expected that a linear pathway to career development will become far less normal (Universities UK, 2018; PWC, 2017).
3. As a result of #2 (above) there will be an absolute need for ongoing learning, upskilling and re-skilling in order to maintain employability (World Economic Forum, 2018; OECD, 2018)

As a consequence of this changing landscape, the World Economic Forum (2018) predicts that 75 million jobs globally will be displaced due to the division of labour between humans and machines, but that this will be balanced with 133 million new roles being created. A further point of relative agreement between organisations is the type of roles that are likely to prosper in this new territory (World Economic Forum, 2018; OECD, 2018; PWC, 2017; Schwab, 2016). The in-demand roles area likely to centre around two main areas:

1. 'Data focused' - Data analysts, data scientists, technological developers, e-commerce, and social media specialists.

2. 'Human focused' - Role linked to more uniquely human skills, e.g., customer service, teaching, counselling, organisational development.

Schools have a vital role to play in preparing children and young people for the world of work. Authors question whether the current model of education and schooling is well positioned to address the challenges of the Fourth Industrial Revolution and prepare young people adequately for a future characterised with so much change and ambiguity. The purpose of inclusion here is not to launch a major criticism of schools but more to identify some of the challenges levelled at the current system. Through analysis of the literature, there are two main challenges: (i) linked to physical organisation of schools; and (ii) linked to the curriculum organisation and, sometimes, the style of pedagogy.

On the first point, linked to physical organisation, Male and Burden note of education organisations and settings,

[they] typically remain organised around spatial and temporal considerations [...] which are designed to classify and manage students. (Male & Burden, 2014, p.425)

A range of commentators pick up on this theme, noting that school design, in the majority of cases, has not fundamentally changed for over 100 years and is therefore flawed for education delivery in the current paradigm.

On the second point linked to curriculum and pedagogy, many authors recognise the hugely changed place of knowledge in our present society and the fact this results in a fundamentally different purpose for schools.

At present, too many schools focus on cramming information. In the past this made sense, because information was scarce and even the slow trickle of existing information was repeatedly blocked by censorship. In the 21st century we are flooded by enormous amounts of information. (Harari, 2018, p.303)

This instant availability of knowledge and information brings a different set of challenges, linked more to identifying reliable and fake news; and being able to discern reliable content. In contributing to this discourse, the World

Economic Forum suggest that most of our current schooling is influenced by the regimes from the First and Second Industrial Revolutions. This was a time when there was a need for the mass production of uniform talent (World Economic Forum, 2019). The WEF, consequently, calls into question the adequacy of the current system to prepare students for the world and life they face. In addition to questioning school structures and the curriculum, the World Economic Forum also note that many systems focus on passive instruction and memorization as opposed to interactive learning methods which promote critical and individual thinking. Their conclusion being:

These outdated systems limit access to the skills needed to drive prosperous economies and pose risks for global productivity. (World Economic Forum, 2019, p.6)

There is growing tension in educational literature about the adequacy of the current curriculum to meet the needs of young people and, ultimately, of society. These criticisms tend to be based on a universal agreement that the place of knowledge in society has changed because of the relative ease with which young people have access to knowledge. The position taken by a great many authors is not that knowledge is redundant but rather that we need a greater focus on how to use knowledge in this new Fourth Industrial context.

Universities UK (2018) recognise, 'The shelf life of relevant and useable knowledge is rapidly diminishing' (2018, p.9). This view is taken because of the fast pace of change and linked to the expected change in the workplace and employment options. The changing view of knowledge is supported by Male (2016b) in noting that more traditional methods of education have tended to be based on the transmission of knowledge from expert to learner. Because of the ready supply of knowledge to students, the role of the teacher is not redundant but is fundamentally changed. The teacher is no longer the single source of knowledge. This is a view supported by Harari (2018) in noting that instead of the focus on knowledge,

People need the ability to make sense of information, to tell the difference between what is important and what is unimportant, and

above all to combine many bits of information into a broad picture of the world. (Harari, 2018, p.303)

In positing the Learning Framework 2030 the OECD (2018) puts forward a proposition which embeds the importance of knowledge in the curriculum but which moves the debate from a transmission of a body of knowledge to a more nuanced position where knowledge is seen as essential in order to ensure that students can be 'change agents' and enabled to use their knowledge to have a positive impact on themselves, others and the world around them

Authors and organisations pose ways forward to prepare students and young people for life and for the world of work. A range of models and views are presented in the literature. The OECD Learning Framework 2030 (2018), is designed to ensure that students develop agency, co-agency, and mature with a sense of purpose. The World Economic Forum (2019) defines their future-focused model as 'Education 4.0' linked to meeting the needs of the Fourth Industrial Revolution. The WEF model is underpinned by a desire to contribute positively to social mobility. These models present a challenge for schools and for education systems, above all to question whether the current models are preparing students adequately for their future and for the world of work. What appears abundantly clear from the literature is that there will be a need for learners to be flexible with the capacity for learning and re-learning throughout their working life in order to remain relevant and able to contribute to the employment market (Universities UK, 2018; World Economic Forum, 2016; Servoz, 2016; OECD, 2018; PWC, 2017).

Appendix 3: Enabling leaders: Principles, practices, and skills

Source:

Title Complexity leadership: Enabling people and organisations for adaptability

Authors Mary Uhl-Bien and Michael Arena

Journal Organisational Dynamics (2017) 46, 9-20

Enabling leadership principles	
Principle	Principle description
Apply complexity theory	Complexity thinking involves understanding how to read a system and identify signs of emergence. Leaders know how to manage pressures, conflicting, linking up and timing to anticipate, interact with, and channel emergence.
Enable adaptive space	Enabling this involves leveraging complexity (above) to feed and fuel emergence for adaptive responses.
Leverage network structures	Network structures represent the informal system in the organisation. This is about enabling the movement of ideas and information across the system.
Engage complexity dynamics	Complexity dynamics make a complex system adaptive.
Play in the pressures	Pressures motivate a system to elaborate and adapt. Playing in the pressures means using pressures to drive and enable adaptive responses.

Enabling leadership practices	
Practice	Practice description
Brokerage	Brokerage allows for ideas to be generated and creates bridges for information to flow and agents to link up.
Leveraging adaptive tension	Increasing and decreasing tension to manage conflict. Too much conflict distresses the system; too little keeps a system and agents in status quo.
Linking up	Creating or energising network connections that enable information flow to feed or fuel emergence.
Tags and attractors	Listening for language and symbols that 'stick' in a system.
Simple rules	Creating simple guidelines for behaviour that enable network and complexity dynamics without requiring agents to understand complexity.
Network closure	Network closure lets the others make the sale for you.

Uhl-Bien and Arena (2017) identify the following enabling leadership skills:

- Leader must be personally adaptive
- Able to adjust style and approach based on unfolding dynamics and read of situation
- Mobile and energise others to act
- Be disciplined enough to step back
- Unleash the capacity of agents
- Model and value adaptive learning
- Know when to be visible and when to be invisible
- Combine conviction and humility
- Comfortable with tension and uncertainty
- Ability to handle failed attempts
- Know the cause is bigger than them
- Gain satisfaction through creating adaptive responses and not through personal recognition

Appendix 4: Principles of Adaptive Leadership

Principle 1 Get on the balcony	This principle reminds leaders to recognise the larger patterns at play and that being overly operational distracts from maintaining a strategic perspective. Effective adaptive leaders can easily move back and forth, “from the balcony to the field of action” (Heifetz & Laurie, 2001, p.133).
Principle 2 Identify the adaptive challenge	This principle reminds leaders that identifying and addressing the adaptive challenge could be the difference between survival and extinction. The authors go further in recommending that leaders not only analyse the challenge but also look to the root causes to work on sustainable ways of addressing.
Principle 3 Regulate distress	This principle acts as a cautionary note as it is acknowledged that adaptive work can easily generate distress in a workforce. “A leader must strike a delicate balance between having people feel the need for change and having them feel overwhelmed by change, leadership is a razor’s edge.” (Heifetz & Laurie, 2001, p.134)
Principle 4 Maintain disciplined attention	This principle is aimed directly at leaders as a warning. Firstly, noting the need for leaders to avoid bringing the organisation back to an equilibrium too quickly as this can prevent the challenging issues being addressed. Secondly, whilst debate and conflict may be useful in the short term, there is a warning that leaders should avoid this becoming polarised and, above all, demonstrate the need for collaboration.
Principle 5 Give the work back to the people	Linked to Principle 4, for leaders to avoid bringing a sense of equilibrium too quickly. Often people look to leaders in positions of authority to act and restore order. This is posed as a short-term fix. The action for leaders is to get people to take responsibility and initiative. The call for leaders is to support rather than control. This is viewed as “unleashing the potential of the employees” (Eichholz, 2014, p.3).
Principle 6 Protect voices of leadership from below	The final principle is a reminder that leaders should not fall into the trap of believing that they are the only ones able to identify and raise adaptive challenges.

(Heifetz & Laurie, 2001)

Appendix 5: The five disciplines as outlined by Senge

In his landmark text, *The Fifth Discipline* (1990), Peter Senge identified five interrelated disciplines which are required to establish a learning organisation. Further detail on these disciplines is provided below.

Personal mastery

There are ongoing references in the work of Senge to reaching a 'special level of proficiency' (Senge, 1990, p.7). According to Senge, this entails individuals continually assessing objectively the gap between their current and desired proficiency, whilst also practising skills until they become internalised. This discipline is almost the personification of the learning organisation. This is a metaphor for promoting continued self-development in an ever changing context (Starkey, 1996). This aspect of personal mastery is an aspiration rather than an attainable quality.

Mental models

Mental models are the internal images and 'engrained assumptions' (Senge, 1990, p.8) of how the world works that inform action. There are parallels here with the notion of 'theories of action' (Argyris & Schön, 1978) as a way of seeing the relationship between thought, action and ways of behaving. It is viewed as the goal of the learning organisation to create shared mental models (Senge, 1990; Yang, Watkins & Marsick, 2004). The discipline of team learning is also credited as a mechanism for generating mental models, though the process for how this actually occurs is unclear (Nair, 2001). There is some associated critique of this discipline with a caution that striving for shared mental models could bring cognitive homogeneity (Filion & Rudolph, 1999).

Building shared vision

Senge framed this as the creation of 'pictures of the future' that engender 'commitment rather than compliance' (Senge, 1990, p.9). This discipline is linked to mental models as shared vision occurs when individual mental maps are aligned. The leader is seen as encouraging the collective to shape and decide upon a vision, rather than imposing his/her own vision upon organisational members. All organisational members are involved in setting, owning, and implementing a joint vision (Watkins & Marsick, 1993; Watkins & Marsick, 1996). Senge asserted, 'when there is genuine vision (as opposed to the all-too-familiar vision statement), people excel and learn, not because they are told to, but because they want to. (Senge, 1990, p.9)

Team learning

Senge contends, 'teams, not individuals, are the fundamental learning unit in a modern organisation' and that 'unless teams can learn, the organisation cannot learn' (Senge, 1990, p.10). A strong emphasis is placed on learning in a group as learning is viewed as being facilitated through social interaction

with prominence given to feedback. Watkins and Marsick (1996) note that collaboration needs to be valued by the organisation for this learning to occur. Underscoring the essential importance of team learning, Yang et al (2004) note that the learning ability of the group is viewed as being greater than the learning ability of any individual.

Systems thinking

Systems thinking is the cornerstone of the learning organisation theory from Senge, the ability to see the big picture. In essence, this is an encouragement for people to see the relationships between multiple parts, to recognise patterns in the organisation's life, rather than focusing on linear, cause-and-effect relationships. (Senge, 1990). Systems thinking facilitates collaborative interaction amongst organisational members and, taken further, between organisations (Hodgkinson, 2000).

Appendix 6: Definitions of 'learning organisation'

Listed by date of publication

Where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together. (Senge, 1990, p.3)

An organisation that facilitates learning of all its members and continually transforms itself. (Pedler, Burgoyne & Boydell, 1991)

A learning organisation is one that can modify their daily work practices in order to reflect new knowledge and insights generated from acquiring, transferring, and creating knowledge; in a contested environment, organisations need to learn in order to thrive. (Garvin, 1993)

An organisation skilled at creating, acquiring and transferring knowledge, and at modifying its behaviour to reflect new knowledge and insights. (Garvin, 1993, p.78)

Learning organization is defined as one that learns continuously and transforms itself. Learning takes place in individuals, teams, and the organizations and even the communities with which the organization interacts. Learning is a continuous, strategically used process, integrated with and running parallel to, work. Learning results in changes in knowledge, beliefs, and behaviours. Learning also enhances organizational capacity for innovation and growth. The learning organization has embedded systems to capture and share learning. (Watkins & Marsick, 1993, p.8)

An organisation that has woven a continuous and enhanced capacity to learn, adapt and change into its culture. Its values, policies, practices, systems, and structures support and accelerate learning for all employees. The learning results in continuous improvement. (Bennett & O'Brien, 1994, p.41)

Learning organization is a social system whose members have learned conscious communal processes for continually: generating, retaining and leveraging individual and collective learning to improve performance of the organizational systems in ways important to all stakeholders; and monitoring and improving performance. (Drew & Smith, 1995, p.4)

The capacity or processes within an organisation to maintain or improve performance based on experience. (Nevis, DiBella & Gould, 1995)

[An organisation] that is continually getting smarter. In a never-ending cycle, it gets smarter and smarter. The organisational IQ continually increases. (Hitt, 1995)

[A learning organisation is one in which] people are aligned to a common vision, sense and interpret their changing environment, generate new

knowledge which they use, in turn, to create innovative products and services to meet customers' needs. (Watkins & Marsick, 1996)

A company is a learning organisation to the degree that it has purposefully built its capacity to learn as a whole system and woven that capacity into all of its aspects: vision and strategy, leadership and management, culture, structure, systems and processes. (Redding, 1997, p.62)

A learning organisation is one that promotes learning among its employees but, more importantly, is an organisation that itself learning from that learning. The characteristics of such organisation are that they:

- lack a highly formalised and clearly evident command and control structure;
- value individual and organisational learning as a prime means of delivering the organisational mission;
- do not view the workforce as a collection of passive, hired hands;
- do not believe that technology will solve future organisational problems;
- involve all their members through continuous reflection in a process of continual review and improvement;
- structure work in such a way that work tasks are used as opportunities for continuous learning.

A learning organisation encourages its members to improve their personal skills and qualities, so that they can learn and develop. They benefit from their own and other people's experiences, both positive and negative. (Evans, 1998, p.201)

A learning organisation is where learning is taking place that changes the behaviour of the organisation itself. (Reynolds & Ablett, 1998, p.26)

A learning organisation is an organisation skills at creating, acquiring, interpreting, transferring and retaining knowledge and at purposefully modifying its behaviour to reflect new knowledge and insights. (Garvin, 2000, p.11)

Learning organizations are essentially flexible, organizations that operate competitively in a global market and are therefore committed to a rapid response to a dynamic external environment. (Grieves, 2000, p.66)

A learning organization is one that creates, acquires and communicates information and knowledge, behaves differently because of this, and produces organizational results from doing so. (King, 2001, p.12)

Learning organization refers to an adaptive self-organizing entity where learning is an emergent property of the whole, not just from the top leaders. (Stegall, 2003, p.45)

A learning organisation is one in which all members of the organisation are individually and collectively willing in heart and in mind to go deeper and broader in their learning process. (Ng, 2004, p.93)

A learning organization is an organization that is organized to scan for information in its environment, by itself creating information, and promoting individuals to transform information into knowledge and coordinate this knowledge between the individuals so that new insight is obtained. It also changes its behaviour in order to use this new knowledge and insight. (Jensen, 2005, p.61)

A learning organization is one in which all employees at all levels are involved. Therefore, people learn together and continually increase their capacity to produce results they really care about. (Cheng, 2009, p.183)

Learning organisation is an organisation that possesses continuous learning characteristics or mechanisms to meet its ever changing needs. (Ali, 2012, p.55)

Appendix 7: Learning organisations

Yang, Watkins, and Marsick (2004) devised a typology to categorise models defining learning organisations with four perspectives:

1. Systems thinking
2. Learning perspective
3. Strategic perspective
4. Integrated perspective

The purpose of this appendix is to provide detail on each of these perspectives, drawing on the work of Yang, Watkins, and Marsick (2004).

Systems thinking

The authors identify the model from Senge (1990) as characteristic of this perspective. In the model, Senge identifies a set of principles to build a learning organisation. The critique from Yang et al (2004) is that, whilst valuable, these do not clearly identify the characteristics of a learning organisation. The dimensions identified by Senge are shown in the diagram below.

Discipline 1	Discipline 2	Discipline 3	Discipline 4	Discipline 5
Team learning	Shared vision	Mental models	Personal mastery	Systems thinking

Learning perspective

In this perspective a range of content is outlined at all organisational levels. The critique from Yang et al (2004) is that the areas conceptually overlap and are therefore nondistinctive which they cite as making it less useful as an instrument. They see that this perspective alongside the system perspective is primarily useful as a 'consultative aid'. An example of a model from this perspective is that from Pedler, Burgoyne, and Boydell (1991) who identify 11 areas for focus which are identified below.

1	A learning approach to strategy
2	Participative policy making
3	Informating
4	Formative accounting and control
5	Internal exchange
6	Reward flexibility
7	Enabling structures
8	Boundary workers as environmental scanners
9	Intercompany learning
10	Learning climate
11	Self-development for everyone

Strategic perspective

The focus of this perspective is understanding the strategic internal drivers necessary for building learning capacity. An example of a model in this perspective is from Goh (1998) which asserts that a learning organisation has five building blocks underpinned by two supporting foundations. I depict this in the diagram below.

Clarity and support for mission and vision	Shared leadership and involvement	A culture that encourages experimentation	The ability to transfer knowledge across organisational boundaries	Teamwork and cooperation
An effective organisational design that is aligned with and supports the building blocks			The appropriate employee skills and competencies needed for the tasks and roles described in the building blocks	

In this strategic perspective, it is viewed that specific managerial practices or building blocks are prerequisites for becoming a learning organisation. The critique here is that there is an over emphasis on the macro level and maybe some neglect of the elements connected to individual learning. There is also a critique from Yang et al (2004) that the blocks are not equal in that some refer to the transfer of knowledge whereas others refer to culture.

Integrated perspective

A model which falls within the integrated perspective comes from Watkins and Marsick (Watkins & Marsick, 1993; Watkins & Marsick, 1996). Their model integrates two main organisational constituents: people and structure. From this, they identify 7 distinct but interrelated dimensions and I depict these in the diagram below.

People related dimensions			
Continuous learning	Inquiry and dialogue	Team learning	Empowerment
An organisation's effort to create continuous learning opportunities for all its members	An organisation's effort in creating a culture of questioning, feedback, and experimentation	The spirit of collaboration and the collaborative skills that undergird the effective use of teams	An organisation's process to create and share a collective vision and get feedback from its members about the gap between the current status and the new vision
Structure related dimensions			
Embedded system	System connection	Strategic leadership	
Efforts to establish systems to capture and share learning	Global thinking and actions to connect the organisation to its internal and external environment	The extent to which leaders think strategically about how to use learning to create change and to move the organisation in new directions or new markets	

Appendix 8: School as a learning organisation model

The model outlined below includes seven dimensions and their associated elements. Source: (Kools & Stoll, 2016, pp.61–63)

Dimension	Elements
Developing a shared vision centred on the learning of all students	<ul style="list-style-type: none"> ▪ A shared and inclusive vision aims to enhance the learning experiences and outcomes of all students ▪ The vision focuses on a broad range of learning outcomes, encompasses both the present and the future, and is inspiring and motivating ▪ Learning and teaching are oriented towards realising the vision ▪ Vision is the outcome of a process involving all staff ▪ Students, parents, the external community and other partners are invited to contribute to the school's vision
Creating and supporting continuous professional learning for all staff	<ul style="list-style-type: none"> ▪ All staff engage in continuous professional learning ▪ New staff receive induction and mentoring support ▪ Professional learning is focused on student learning and school goals ▪ Staff are fully engaged in identifying the aims and priorities for their own professional learning ▪ Professional learning challenges thinking as part of changing practice ▪ Professional learning connects work-based learning and external expertise ▪ Professional learning is based on assessment and feedback ▪ Time and other resources are provided to support professional learning ▪ The school's culture promotes and supports professional learning
Promoting team learning and collaboration among all staff	<ul style="list-style-type: none"> ▪ Staff learn how to work together as a team ▪ Collaborative working and collective learning - face-to-face and through ICTs - are focused and enhance learning experiences and outcomes of students and/or staff practice ▪ Staff feel comfortable turning to each other for consultation and advice ▪ Trust and mutual respect are core values ▪ Staff reflect together on how to make their own learning more powerful ▪ The school allocates time and other resources for collaborative working and collective learning
Establishing a culture of enquiry, exploration, and innovation	<ul style="list-style-type: none"> ▪ Staff want and dare to experiment and innovate in their practice ▪ The school supports and recognises staff for taking initiative and risks ▪ Staff engage in forms of inquiry to investigate and extend their practice

Dimension	Elements
	<ul style="list-style-type: none"> ▪ Inquiry is used to establish and maintain a rhythm of learning, change and innovation ▪ Staff have open minds towards doing things differently ▪ Problems and mistakes are seen as opportunities for learning ▪ Students are actively engaged in inquiry
Embedding systems for collecting and exchanging knowledge and learning	<ul style="list-style-type: none"> ▪ Systems are in place to examine progress and gaps between current and expected impact ▪ Examples of practice - good and bad - are made available to all staff to analyse ▪ Sources of research evidence are readily available and easily accessed (▪ Structures for regular dialogue and knowledge exchange are in place ▪ Staff have the capacity to analyse and use multiple sources of data for feedback, including through ICT, to inform teaching and allocate resources ▪ The school development plan is evidence-informed, based on learning from self-assessment, and updated regularly ▪ The school regularly evaluates its theories of action, amending and updating them as necessary ▪ The school evaluates the impact of professional learning
Learning with and from the external environment and larger system	<ul style="list-style-type: none"> ▪ The school scans its external environment to respond quickly to challenges and opportunities ▪ The school is an open system, welcoming approaches from potential external collaborators ▪ Partnerships are based on equality of relationships and opportunities for mutual learning ▪ The school collaborates with parents/guardians and the community as partners in the education process and the organisation of the school ▪ Staff collaborate, learn and exchange knowledge with peers in other schools through networks and/or school-to-school collaborations ▪ The school partners with higher education institutions, businesses, and/or public or non-governmental organisations in efforts to deepen and extend learning ▪ ICT is widely used to facilitate communication, knowledge exchange and collaboration with the external environment
Modelling and growing learning leadership	<ul style="list-style-type: none"> ▪ School leaders model learning leadership, distribute leadership and help grow other leaders, including students ▪ School leaders are proactive and creative change agents

Dimension	Elements
	<ul style="list-style-type: none"><li>▪ School leaders develop the culture, structures, and conditions to facilitate professional dialogue, collaboration, and knowledge exchange<li>▪ School leaders ensure that the organisation's actions are consistent with its vision, goals, and values<li>▪ School leaders ensure the school is characterised by a 'rhythm' of learning, change and innovation<li>▪ School leaders promote and participate in strong collaboration with other schools, parents, the community, higher education institutions and other partners<li>▪ School leaders ensure an integrated approach to responding to students' learning and other needs

Appendix 9: Culture properties in a learning organisation

The table below outlines the culture properties identifies following a review of twenty pieces of research connected to the culture in a learning organisation. Analysis reported by Santa (2015, p.247).

Culture properties	Keywords	Authors
<i>Openness:</i> People can share their ideas, speak without being afraid and have trust among each other	Openness	(McGill & Slocum, 1993; Coopey, 1995; DiBella & Nevis, 1998; Evans, 1998; Guns, 1998; Garvin, Edmondson & Gino, 2008)
	Disclosure	(Marquardt & Reynolds, 1994)
	Sharing	(Watkins & Marsick, 1993; Garvin, 2000; Silins & Mulford, 2002)
	Trust	(Bennett & O'Brien, 1994; Davies & Nutley, 2000; Silins & Mulford, 2002)
<i>Experimentation:</i> Seeking for new things by taking calculated risks to create competitive advantage. Accept failures or mistakes not to eliminate the curiosity and the opportunities from the experiments.	Experimentation	(Pedler, Burgoyne & Boydell, 1991; Coopey, 1995; Slater & Narver, 1995; Goh, 1998; Giesecke & McNeil, 2004)
	Curiosity	(DiBella & Nevis, 1998)
	Take risks	(McGill & Slocum, 1993; Marquardt & Reynolds, 1994; Giesecke & McNeil, 2004)
	Accept mistakes	(Pedler, Burgoyne & Boydell, 1991; McGill & Slocum, 1993)
	Accept uncertainty	(Coopey, 1995; Evans, 1998)
<i>Participation:</i> All the employees are treated equally, should be able to participate and work together. The vertical and horizontal barriers are eliminated.	No barriers, egalitarian	(Kofman & Senge, 1993; James, 2003)
	Participation	(Watkins & Marsick, 1993)
<i>Dialogue:</i> Discussion is not sufficient, employees should get involved in dialogue, be able to ask any type of questions and get feedback on them.	Dialogue and enquiry	(Senge, 1990; McGill & Slocum, 1993; Watkins & Marsick, 1993)
	Questioning	(Coopey, 1995; Goh, 1998)
	Feedback	(Watkins & Marsick, 1993; Marquardt & Reynolds, 1994)
	Time for reflection	(Garvin, Edmondson & Gino, 2008)

Appendix 10: Definitions of ‘schools as a learning organisation’

Listed by date of publication

[The learning school is one that is] re-created, made vital, and sustainably renewed not by fiat or command, and not by regulation, but by taking a learning orientation. This means involving everyone in the system in expressing their aspirations, building their awareness, and developing their capabilities together. In a school that learns, people who traditionally may have been suspicious of one another – parents and teachers, educators and local business people, administrators and union members, people inside and outside the school walls, students and adults – recognise their common stake in the future of the school system and the things they can learn from one another. (Senge, 1990, p.5)

The learning organisation has formal and informal processes and structures for the acquisition, sharing and utilization of knowledge and skills. Typically, successful learning organisations exhibit three characteristics that enable them to initiate and sustain improvement. (i) Well developed core competencies that serve as launch points for new products and services. In schools these competencies would involve components such as teacher selection and induction, staff development, instructional strategy, student services etc. (ii) Attitudes that support continuous improvement. The cultural norms and expectations of the school must support a climate of student support and continuous improvement of the school’s curriculum, instructional programs, communication structures, etc. The school climate must be positive, actively sustained, and risk free. (iii) The capability to redesign and renew. Improvement is not an event but a process that must be continuously renewed and revitalized. Schools must have a design process in place that makes this possible. (Keefe & Howard, 1997, p.42)

The SLO is one where all stakeholders engage in the continual reflection on practice to identify ways in which the operations of the school can be improved. The main focus is on improving student learning and providing the support conditions to facilitate that goal. A major part of the effort must be to establish the conditions where the professionals and other stakeholders can create the sense of community as a learning organisation. Not only teachers and administrators but parents and the community members must reflect on how they can contribute to the more effective operations of the school as a learning community. One of the key values of the SLO is that the organisation has the capacity to continually renew itself as it strives to fulfil its vision. (Wallace, Engel & Mooney, 1997, p.179)

Learning organisation is an organisation which has learnt how to learn about itself, and about the world in which it exists and functions. In being able to learn, a learning organisation is able to understand and make sense of its own patterns and organisational reality, and also its broader context. (Davidoff & Lazarus, 2002, p.49)

Schools as learning organisations employ processes of environmental scanning; develop shared goals; establish collaborative teaching and learning environment; encourage initiatives and risk taking; regularly review all aspects related to and influencing the work of the school; recognise good work; and, provide opportunities for continuing professional development. (Silins, Mulford & Zarins, 2002, p.26)

Schools that employed processes of environmental scanning; developed shared goals; established collaborative teaching and learning environments; encouraged initiatives and risk taking; regularly reviewed all aspects related to and influencing the work of the school; recognised and reinforced good work; and provided opportunities for continuing professional development. (Silins, Mulford & Zarins, 2002, p.616)

The learning organization learns to continually adapt themselves to environmental changes, detect and fundamentally correct their errors, and improve their effectiveness through corrective actions. The learning organisation model proposes that continuously enhancing employees' personal mastery experiences, collective thinking and actions, systematically analysing situations, and building shared visions are necessary to enhance the effectiveness of organizational changes and actions. (Alavi & McCormick, 2004, p.409)

The essential characteristics of a schools as a learning organisation area a shared insights or vision; learning based on experience; willingness to change mental models; individual and group motivation; team learning; learning nurtured by new information; increasing the learning capacity to reach a state of continuous change or transformation. (Coppieters, 2005, p.134)

Learning organisations are characterised by their ability to: create continuous learning opportunities and systemic problem solving; promote inquiry and dialogue, making it safe for people to share openly and take risks; encourage collaboration to learn from new experiences and best practices of others; embrace creative tension as a source of energy and renewal; establish systems to capture and share knowledge quickly throughout the organisation; and continuously be aware of and connect with their external environment. (Moloi, Grobler & Gravett, 2006, p.88)

A learning organisation is one in which people continually expand their capacity to create 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. (Park, 2008, p.271)

Learning organizations means to move from the individualized view of schooling, where learners experience their education as a product driven along by efficiently managed schools that see results in the form of outcome performance, through to a new type of school, one that can learn from its

actions and develop ways of working that re-norm the school to develop more ecologically compatible systemic practice. (Schlechty, 2009, p.41)

A form of professional organisation in which all members are able to learn new skills and knowledge continuously so that they are capable of dealing with change and realising the goals of the country's education system. (Hamzah, 2011, p.58)

The schools as a learning organisation is an ideal approach to promoting an active and proactive adaptability in dynamic environments with different social expectations, including students with different backgrounds, geographic location (rural, suburban, urban) and socio-economic and cultural conditions of the community, government structures and administrative procedures in the education at the local level. The following characteristics turn schools into learning organizations: Continued professional development; Tendency to take risks; Honest cooperation; Shared vision; Monitoring and assessment. (Paletta, 2011, p.735)

As learning organizations, schools develop processes, strategies and structures that would enable them to learn and react effectively in uncertain and dynamic environments. These schools institutionalise learning mechanisms in order to revise their existing knowledge. Without such mechanisms, a learning organisation is unlikely to emerge. (Schlechter & Mowafaq, 2013, p.508)

[A school that is a learning organisation is one] that 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 et al., 2020, p.26)

Appendix 11: Participant information sheet

Dear <insert name>,

I am writing to ask if you would consider being part of a research project for my doctorate which I am undertaking at the UCL Institute of Education.

I am exploring how educational leaders think about the future and the leadership behaviours required.

If you agree to be part of this study, we will choose a time and place that works for you. I would like to make an audio recording of our conversation. The purpose of this is to ensure that an accurate written transcript of the conversation can be produced. The recording and the transcript will be stored securely on the university's IT system until I have completed my doctorate, thereafter all data will be destroyed. I anticipate that the conversation will take approximately 40-60 minutes.

This proposed research has been approved and given ethical approval by my supervisors at the UCL Institute of Education. If you feel able to take part, I will ask you to complete a consent form to indicate your understanding of the parameters of the study. If before, during or after the process you have any concerns, we can discuss these. You can, of course, also contact my supervisor at the Institute of Education if you have any concerns (Dr Trevor Male - t.male@ucl.ac.uk).

When writing up the interviews and the research report, I plan to anonymise all contributions. The report will be seen by academics who evaluate my work. I will not be using any data from you in any other context without requesting specific permission from you.

I hope that this provides some useful context. Provided you are content to meet for a conversation, we can spend time answering any queries or concerns you may have.

With thanks for your support.

Best wishes,

Appendix 12: Participant consent form

Thank you for agreeing to take part in this doctoral research study. The purpose of this consent form is to ensure that you are content with the scope and implications of participating. This research project has been approved and given ethical approval by my supervisors at the UCL Institute of Education.

The conversation will be audio recorded and the audio recording will be used to make an accurate written transcript. The audio recording and the written transcript will be stored securely on the university's IT system until I complete my doctorate. I will use the content from our conversation as a basis for producing a written report. In signing below, you indicate that the information from the conversation can be used for this purpose.

In producing transcripts and writing the report, individuals will be anonymised with the intention that no individual will be identifiable. Your participation in this study is entirely voluntary and you can withdraw at any time up to the completion of the conversation. The information gathered will be used solely for the purposes of my study at the UCL Institute of Education.

The data controller for this project will be University College London (UCL). The UCL Data Protection Office provides oversight of university activities involving the processing of personal data and can be contacted at data-protection@ucl.ac.uk. UCL's Data Protection Officer can also be contacted at data-protection@ucl.ac.uk. Further information on how UCL uses participant information can be found here: <https://www.ucl.ac.uk/legal-services/privacy/ucl-general-research-participant-privacynotice>

The legal basis that would be used to process your personal data will be performance of a task in the public interest. The legal basis used to process special category personal data will be for scientific and historical research or statistical purposes/explicit consent. Your personal data will be processed so long as it is required for the research project.

With thanks for your support.

Declaration: I have read the information above and give my active consent to participate in this study.

Name

Signed

Date

Appendix 13: Interview schedule

Introductory points to be used in each participant interview

- Thank you for willingness to be involved; time appreciated
- Structure of interview; informal in nature with no right or wrong answers; no hypothesis being tested
- Data stored and used only for purposes of this academic study and not shared internally within the organisation
- Individuals will be anonymised within the data - reference to individuals or to school names will be redacted. Note that it is unlikely that the organisation (school group) will be anonymised
- The purpose of the interview is as a listening exercise - 'you are the expert'
- Interview data will be transcribed by a third party
- Will ask each participant to check the accuracy of the transcript and allow for any data to be removed
- Can stop the interview at any time
- Comfortable to proceed?

Explaining purpose

- Exploring two inter-related areas: the first is organisational and the second relates to leadership
- Especially interested in 'adaptive organisations' and 'schools as learning organisations'

Prompts

- What do you consider when thinking about planning for the future (next 10+ years)?
- What does it mean to be an adaptive organisation?
- What do you consider is the difference between an adaptive organisation and one that can manage change?
- What do you see are the traits of a school that is adaptive?
- What do you see as the challenges facing schools in becoming adaptive?
- Any more general challenges to international schools?
- Relating this to your context, what does it mean for a school to be a learning organisation?
- What do you see as the characteristics of a school that is a learning organisation? Is this the same or different from being an adaptive organisation?
- When you have learned something new as an organisation, how do you go about institutionalising it?
- What characteristics embody an adaptive leader?
- What are the behaviours that school leaders specifically need to lead an adaptive school?
- Do these behaviours vary by context?
- Are you able to exemplify these with reference to a leader?
- How can these behaviours be supported or developed?

- Can you share a short case study which exemplifies adaptivity (what was the issue, what happened, what changed in the organisation as a result)?

Closing points

- Thank you for insight and thoughts; greatly appreciated
- Anything further to add?
- Next steps

Appendix 14: Participant detail

The table below outlines the details of each participant interview.

Participant	Designation	Gender	Interview duration	Word length: Transcription
A	School leader	Female	60 mins and 08 secs	8,585
B	School leader	Female	47 mins and 10 secs	6,571
C	School leader	Male	20 mins and 07 secs	2,560
D	School leader	Female	26 mins and 49 secs	3,187
E	School leader	Female	36 mins and 11 secs	4,348
F	School leader	Male	See note below	-
G	System leader	Male	46 mins and 54 secs	6,150
H	System leader	Male	68 mins and 24 secs	10,505
I	System leader	Female	22 mins and 25 secs	2,874
J	System leader	Male	50 mins and 22 secs	6,071
K	System leader	Female	48 mins and 10 secs	5,954
L	System leader	Male	26 mins and 31 secs	3,714

Note: Participant F unable to participate linked to COVID-19 related reason.

Total

11 participants

7 hours, 33 mins and 11 secs

60,519 words

Appendix 15: Interview detail

The table below outlines the breakdown of words spoken in each participant interview.

Participant	Word length: Transcription	Interviewer: Word count	Participant: Word count
A	8,585	901	7,684
B	6,571	918	5,653
C	2,560	444	2,116
D	3,187	501	2,686
E	4,348	601	3,747
F	-	-	-
G	6,150	713	5,437
H	10,505	954	9,551
I	2,874	513	2,361
J	6,071	729	5,342
K	5,954	850	5,104
L	3,714	687	3,027
Total	60,519 words	7,811 words	52,708 words

Note: Participant F unable to participate linked to COVID-19 related reason.

Of the total number of words in the interview transcripts, the percentage of words spoken by the interviewer was 14.8%.

Appendix 16: Annotated interview transcript

Example of annotated interview transcript - initial notes and jottings.

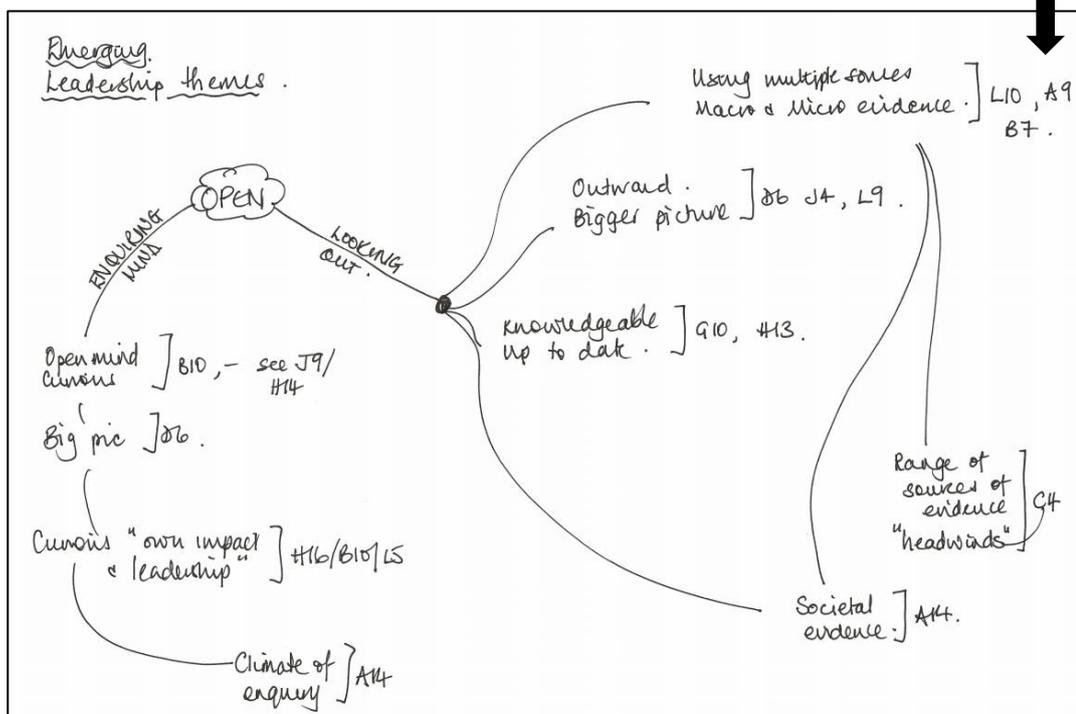
<p>3A Interviewer: That's helpful. But the reason I just wanted to clarify it is that you actually didn't do this, but often when people talk about being adaptive, they use the language of change in it, so that was just why I wanted to clarify. You were really clear, but that was why I really wanted to explore it. And if you take your version of being adaptive, and you were to think, "Well, either I'm going into a school that's new where I'm going to work," or, "I'm a visitor to a school," what would be the traits that you would look for of a school then that was adaptive, based on your definition?</p>	
<p>Respondent: I would look for <u>organisational structure</u>, or I would look at organisation structure, and I would look at that to see who was part of the conversations which were leading growth or who was part of decision-making conversations. I would look to see what <u>processes</u> were framed that supported faculty support staff or other wider staff that we have within a school organisation, to take action on initiatives. I would look to see to what extent our <u>student population and our parent populations</u> were a part of the conversations that were happening. I would look to see to what extent the school is connected with the <u>external community</u>, to what extent the school is connecting or interacting with the external community to be able to better understand the landscape and the environment that they're part of. I would look for <u>partnerships</u> that the school had developed, where potentially those partnerships are enabling or empowering the school to be able to look at different ways or different approaches that may not necessarily be driven from the education sector.</p>	<p>Org structure - Who is part of conv.</p> <p>Processes to support</p> <p>Stakeholder voice</p> <p>External community</p> <p>Partnerships. (inc. external)</p>
<p>I would be looking at processes of <u>professional learning and growth</u>, to identify what skills we were actually providing to our faculty or our extended staff, that could help ensure that what they were doing was sustainable. So I'd look for to what extent have we trained our extended team to manage projects, right through down to our TAs, to what extent have we worked with our wider team to help them understand how to link projects back to <u>vision and mission</u>. I would look to see to what extent the school engages in future thinking and how that's facilitated. I would look into <u>curriculum</u>, and I would have a look to see to what extent our curriculum is fostering the effective skills that students need, to be able to be adaptive. And</p>	<p>Prof. lmg. /growth. extended team.</p> <p>Link to vision/mission.</p> <p>Link to curriculum/skills.</p>

Appendix 17: Identification of themes

Characteristics of adaptive leader	
(A) Leader not to own anything	empower
↳ don't own the pieces (control?)	empower
Work with communities to pitch beyond.	OPEN
Collectively own the vision	empower
Brave enough to ack "we don't know the answers."	? beh.
Ask Qs - cognitive + meditative Qs. → create thinking.	OPEN
Don't allow constraints to govern.	-
Open up enquiry.	OPEN
Understand societal + bigger context / look outside.	OPEN
Stimulate + provide conversation	OPEN
Build capacity of team	empower
Execute immersive + sustainable innovation.	-
"We have to own it, but can't own it".	empower.
(B) Open minded	open
Curious	open.
Communication skills.	? beh
Transparency/honesty.	? beh.
(C) Ability to read the educ headwinds / coming down the line	open
Get others to recognise this (headwinds)	open
↳ cultural absorption	open.
Get others to drive the agenda.	empower
Allow others to take centre stage	empower
Shift so whole org und. + tackling partic issue	-
An organisational vs individual drive	empower.

Based on notes and jottings from interview transcripts, identifying emerging themes (initial stage).
Revisited and refined three times.

Identifying evidence to support themes and components in each theme.



Appendix 18: Applying themes to the annotated transcripts

3A Interviewer: That's helpful. But the reason I just wanted to clarify it is that you actually didn't do this, but often when people talk about being adaptive, they use the language of change in it, so that was just why I wanted to clarify. You were really clear, but that was why I really wanted to explore it. And if you take your version of being adaptive, and you were to think, "Well, either I'm going into a school that's new where I'm going to work," or, "I'm a visitor to a school," what would be the traits that you would look for of a school then that was adaptive, based on your definition?

Respondent: I would look for organisational structure, or I would look at organisation structure, and I would look at that to see who was part of the conversations which were leading growth or who was part of decision-making conversations. I would look to see what processes were framed that supported faculty support staff or other wider staff that we have within a school organisation, to take action on initiatives. I would look to see to what extent our student population and our parent populations were a part of the conversations that were happening. I would look to see to what extent the school is connected with the external community, to what extent the school is connecting or interacting with the external community to be able to better understand the landscape and the environment that they're part of. I would look for partnerships that the school had developed, where potentially those partnerships are enabling or empowering the school to be able to look at different ways or different approaches that may not necessarily be driven from the education sector.

I would be looking at processes of professional learning and growth, to identify what skills we were actually providing to our faculty or our extended staff, that could help ensure that what they were doing was sustainable. So I'd look for to what extent have we trained our extended team to manage projects, right through down to our TAs, to what extent have we worked with our wider team to help them understand how to link projects back to vision and mission. I would look to see to what extent the school engages in future thinking and how that's facilitated. I would look into curriculum, and I would have a look to see to what extent our curriculum is fostering the effective skills that students need, to be able to be adaptive. And

Org structure → Open/Org
Who is part of conv.

Processes to support → Idem/Org

Stakeholder voice → Open/Org

External community → Open/Org

Partnerships. (inc. external) → Open/Org

Prof. lmg. / growth → Emp/Org
Id/Lead.
extended team.

Link to vision/mission → Idem/Org

Link to curriculum/skills. ?

Appendix 19: Analysis of participant views on SLOs

The table below codes participant views about schools as a learning organisations against the 49 elements from the work of Kools and Stoll (2016, pp.61–63). The 49 elements from Kools and Stoll were used as a priori codes.

Dimension	Elements	Evidence from participant interview transcripts
Developing a shared vision centred on the learning of all students	(1) A shared and inclusive vision aims to enhance the learning experiences and outcomes of all students	From a cultural perspective, it's - is there a belief set embedded in norms and values of the organisation, that foster learning and the learning experience, that say, 'This is what we believe, and we have a shared commitment around this being the work we subscribe to. (K4/5) An absolute focus on what's important in terms of outcomes for students, and the experience for their family. (H13)
	(2) The vision focuses on a broad range of learning outcomes, encompasses both the present and the future, and is inspiring and motivating	So to me, in a school setting, being a learning organisation means that there is a focus on always thinking about how instruction impacts learning outcomes, and how we could change to get better results in terms of student learning and preparation for the future. (K4)
	(3) Learning and teaching are oriented towards realising the vision	When I think about being a learning organisation, I come back to the mental model of 'Is the structure of the school set up to facilitate learning, deep learning, so that we can adapt and achieve our vision?' (K4)
	(4) Vision is the outcome of a process involving all staff	The vision is a shared exercise. All staff need to be part of creating and

Dimension	Elements	Evidence from participant interview transcripts
		implementing is. It should be a live thing. (D6)
	(5) Students, parents, the external community, and other partners are invited to contribute to the school's vision	[In a learning organisation] I think the evidence of that is through stakeholders of the community who are not teachers and who are not students, but who are the wider community, including parents, because they have a stake and help create the vision. (L5)
Creating and supporting continuous professional learning for all staff	(6) All staff engage in continuous professional learning	So it's putting learning in the hands of the child [...] I also think that necessarily translates to the teacher as well, that the teacher takes care of his or her own learning. (L5) [Have a] robust professional learning programme. (K5) We're also here to create wonderful and rich learning opportunities for our faculty and staff. (A9)
	<i>(7) New staff receive induction and mentoring support</i>	<i>Not included in participant transcripts</i>
	(8) Professional learning is focused on student learning and school goals	An absolute focus on what's important in terms of outcomes for students, and the experience for their family. (H13)
	(9) Staff are fully engaged in identifying the aims and priorities for their own professional learning	You would see that professional development was being driven by mechanisms such as professional learning communities, so there was an ownership of the way a school was moving, and it was owned by the teachers, not a leadership team. (G6)

Dimension	Elements	Evidence from participant interview transcripts
	(10) Professional learning challenges thinking as part of changing practice	Just not being satisfied I guess with the status quo and connecting with other people and continuing professional learning. (D4)
	(11) Professional learning connects work-based learning and external expertise	I would want to see teacher going into each other's classrooms, building on other professional learning. It is about looking out, using research, using expertise. Then bringing it back into the classroom. (K5)
	(12) Professional learning is based on assessment and feedback	I'd be looking for the students to be able to identify that their teachers are... seem to always want to learn, that they seem hungry for learning, and that the students could see that in the teachers. (K6) Quality growth conversations are happening in the school with those growth conversations asking critical questions about impact. (A9)
	(13) Time and other resources are provided to support professional learning	From the structural perspective, it's how you use time to get the best learning. (K4)
	(14) The school's culture promotes and supports professional learning	We're having conversations at [x] right now about common professional learning time [...] We're talking about how to carve out time in the week to dedicate to this [professional] learning. (K4)
Promoting team learning and	(15) Staff learn how to work together as a team	I think if we were to think about that way that teams work together within a school, I think there would

Dimension	Elements	Evidence from participant interview transcripts
collaboration among all staff		be strong collaboration and community in the way that things got done. (G6)
	(16) Collaborative working and collective learning - face-to-face and through ICTs - are focused and enhance learning experiences and outcomes of students and/or staff practice	[The school is] filled with professionals that are really excellent at their craft, and have a genuine desire to be better together, and so they collaborate, and they work together, and they just get better as an organisation. And it's when you have that sort of collective mindset, that ethos that sits behind collectivism, is when you actually see the group work better. (J5)
	<i>(17) Staff feel comfortable turning to each other for consultation and advice</i>	<i>Not included in participant transcripts</i>
	(18) Trust and mutual respect are core values	Everything comes back to transparency and trust. That has to be the heart of the value base. (G7)
	(19) Staff reflect together on how to make their own learning more powerful	[There is] as climate of idea bouncing, or a climate of co-constructing what a process might be for something. (A9)
	<i>(20) The school allocates time and other resources for collaborative working and collective learning</i>	<i>Not included in participant transcripts</i>
Establishing a culture of enquiry, exploration, and innovation	(21) Staff want and dare to experiment and innovate in their practice	You would find an openness to discuss. I think the ability to share challenges, to share concerns, no such thing as silly ideas. This leads to innovation. (G6)
	(22) The school supports and recognises staff for taking initiative and risks	Great mechanisms for [...] reflection and bringing things to the table and discussing and debating. Being prepared

Dimension	Elements	Evidence from participant interview transcripts
		to take risks, knowing we will support. (H13)
	(23) Staff engage in forms of inquiry to investigate and extend their practice	We have to question constantly what we are doing, and we have to improve and change. Committed to ongoing professional learning which will have an impact on the learning experience of the children you have under your care. (I5) Teachers are able to talk about their own practice and what they think works well and what they think they're good at and what they need to work on, and they will talk about students and their learning and they will be able to have long and deep rich conversations about student learning, because it goes back to that always. (B7)
	(24) Inquiry is used to establish and maintain a rhythm of learning, change and innovation	Inquiry, exploration and experimentation has to lead. You're looking inwardly in your reflection and looking outward for innovation. (H12)
	(25) Staff have open minds towards doing things differently	One of the strengths of [learning organisations] is that they never stop questioning and never stop identifying opportunities to grow as a school organisation. (I5) You would find an openness to discuss. I think the ability to share challenges, to share concerns, no such thing as silly ideas. (G6) A teacher will be open to reflective practice and

Dimension	Elements	Evidence from participant interview transcripts
		changing what they do based on what they believe works, whether it's academic or pastoral. (B6)
	(26) Problems and mistakes are seen as opportunities for learning	Individuals are courageous enough to say that they have tried something that has collapsed. (A9) It's an environment where when you're in that context, and something has not worked, that it's not a finger pointing exercise, that the language is very solution focused. (A9)
	(27) Students are actively engaged in inquiry	On a student level, it is inquiry, putting learning in the hands of the child. (L5)
Embedding systems for collecting and exchanging knowledge and learning	(28) Systems are in place to examine progress and gaps between current and expected impact	Strong and ongoing self-evaluation and evaluating impact from previous improvement areas so they could say, 'We did this and as a result this has happened'. (G6)
	(29) Examples of practice - good and bad - are made available to all staff to analyse	[Learning organisations that I know] have learning teams which have been set up and are talking about best practice and they have critical conversations about those topics which are so germane to what happening in the classroom. (L5) Systems for when there are good practices – how are those good practices shared, so not just, you know, good practices in isolation or in smaller groups but are there systems in place where

Dimension	Elements	Evidence from participant interview transcripts
		these practices can be shared. (D5)
	(30) Sources of research evidence are readily available and easily accessed	Tapping into research that's been done by, for example, the OECD, and then really looking at some of those pieces and saying, 'What are we seeing coming through from these bodies of research that can enable us to ask critical questions about what we're delivering within our context?' And then, what can we do within our context to be able to be proactive in terms of those trends. (A2)
	(31) Structures for regular dialogue and knowledge exchange are in place	It's the whole idea of sharing best practice, detecting talent, making sure that you share that talent within your school, across the schools, across the group. (I5)
	(32) Staff have the capacity to analyse and use multiple sources of data for feedback, including through ICT, to inform teaching and allocate resources	Another touchpoint is looking at how data and evidence is being used. Is it being used to measure success, or used to ask great questions about trends that we're seeing the patterns we're identifying? We need to use this to reflect how it needs to change how we teach and where we focus our attention. (A9)
	(33) The school development plan is evidence-informed, based on learning from self-assessment, and updated regularly	You would want to see small focus groups involved in self-evaluation on an ongoing basis to affect school improvement planning. (I5)

Dimension	Elements	Evidence from participant interview transcripts
		<p>Strong mechanisms for self-evaluation are in place. (H13)</p> <p>I would want to see a school that had recognised where it had things to learn based on the evidence available whether that is exam outcomes, whether that is parental feedback, student voice, whatever; that they recognised where the areas of weakness were, then put plans in place to improve that. (C4)</p> <p>Students, faculty staff, parents – able to identify areas that have not worked or have worked. (A9)</p>
	<p><i>(34) The school regularly evaluates its theories of action, amending and updating them as necessary</i></p>	<p><i>Repeated mentions of evaluation being integral to SLO but not specifically of theories of action</i></p>
	<p>(35) The school evaluates the impact of professional learning</p>	<p>So to me, in a school setting, being a learning organisation means that there is a focus on always thinking about how professional development impacts learning outcomes, and how we could change to get better results in terms of student learning. (K4)</p>
<p>Learning with and from the external environment and larger system</p>	<p>(36) The school scans its external environment to respond quickly to challenges and opportunities</p>	<p>You also have to be a person who's willing to take in input from multiple sources because if you're not able to take that input in you're potentially missing a thought, an idea, an action that you may not otherwise have considered. (L10)</p>

Dimension	Elements	Evidence from participant interview transcripts
		<p>It's about looking outwards and saying, 'What is coming down the track? Versus, 'Right, there's a new government directive saying I have to do this' or 'Every other school in my area is doing this, I'd better start doing it now'. I think the hallmark of that school are the ones where the school, the organisation - specifically the leaders - are much more aware of the shifting educational landscape, before it's shifting.' (C2)</p>
	<p>(37) The school is an open system, welcoming approaches from potential external collaborators</p>	<p>You're looking inwardly in your reflection and looking outward for innovation. (H12) [Asking] 'What else is out there and who can we connect with and what can we aspire to, how can we do even more in addition to finding areas that need to be changed? (D4) It's looking outside rather than looking inward. And it's making sure you do your self-evaluation within your school but you embrace the possibility to engage with schools outside your own system. So it's a much wider practice. It's a much bigger exercise. And I think it helps have different perspectives from different organisations. So you're not limiting yourself to your own context. You</p>

Dimension	Elements	Evidence from participant interview transcripts
		are opening yourself up. (I3)
	<i>(38) Partnerships are based on equality of relationships and opportunities for mutual learning</i>	<i>Not included in participant transcripts</i>
	(39) The school collaborates with parents/guardians and the community as partners in the education process and the organisation of the school	It would be a school that had mechanisms and structures in order to be able to gather the views of different stakeholder communities but then use them to make a difference. We are not an island. We are partners with parents. (G7)
	(40) Staff collaborate, learn and exchange knowledge with peers in other schools through networks and/or school-to-school collaborations	It has to go way beyond an individual school. It has to be embracing the opportunity to learn as a group of schools learning from each other. (I5)
	(41) The school partners with higher education institutions, businesses, and/or public or non-governmental organisations in efforts to deepen and extend learning	[Partners] hold each other to account, there is healthy challenge. (H12) [Asking] 'What else is out there and who can we connect with and what can we aspire to, how can we do even more in addition to finding areas that need to be changed? (D4)
	<i>(42) ICT is widely used to facilitate communication, knowledge exchange and collaboration with the external environment</i>	<i>Not included in participant transcripts</i>
Modelling and growing learning leadership	(43) School leaders model learning leadership, distribute leadership and help grow other leaders, including students	At the level of leadership [...] they also have an obligation to learn, they have an obligation to learn better governance. (L5) I would look to the head of school who models learning; I think that

Dimension	Elements	Evidence from participant interview transcripts
		<p>leadership is really important, and so, how does the head of school talk about the learning she or he is doing, and how does the head of school model being vulnerable, being a risk take? (K5)</p> <p>You would want to see a distributed leadership model... with as much involvement at all levels as possible in the decision made around pedagogy throughout the school (I5)</p> <p>Strong involvement of different layers of the school community. (G6)</p>
	(44) School leaders are proactive and creative change agents	<p>Leaders, whether middle or senior leaders, really should be able to talk to how they know how well [improvement] is going and what they think needs still to be worked on and encouraged and developed and supported. They need to lead change and also model change – creating the right conditions for others to be brave enough to take risks. (B7)</p>
	<i>(45) School leaders develop the culture, structures, and conditions to facilitate professional dialogue, collaboration, and knowledge exchange</i>	<i>Not included in participant transcripts</i>
	(46) School leaders ensure that the organisation's actions are consistent with its vision, goals, and values	<p>Immediately what springs to mind in a learning organisation... I want to just trace straight back to values and/or principles. And if schools are calling</p>

Dimension	Elements	Evidence from participant interview transcripts
		out and being true to those values. (H12)
	(47) School leaders ensure the school is characterised by a 'rhythm' of learning, change and innovation	Everybody and everything we do, everybody is a learner and everything we do is a learning experience, and everything that we experience should be something that we can identify ways to grow from. (A9)
	(48) School leaders promote and participate in strong collaboration with other schools, parents, the community, higher education institutions and other partners	You would be hearing the voices of our different stakeholders who are involved in safe, reflective conversations, so it's not always from the perspective of the faculty that we are evaluating our organisation. (A9)
	(49) School leaders ensure an integrated approach to responding to students' learning and other needs	A learning organisation means that we are primarily here to serve our student body. (A9)

Appendix 20: Consideration of macro culture

The extract below is taken directly from Chapter Four (Findings) of my Institution Focused Study which was submitted as part of this professional doctorate (Camby, 2020, pp.46–50). The participants in this study were international school principals. This extract provides evidence of their views on the interplay between their school (organisational culture) and the macro culture of their host country.

Theme 2: interplay with macro culture

(2a) Views of the macro culture

The participants in this study could all articulate a view of the host culture in the country they worked but were somewhat reticent to do so, with several participants explicitly stating that they did not want to be stereotypical in their views. The comments made linked to 'formality' (F8), 'sense of order' (C5) and 'not following rules' (A8). Given the reluctance of participants to discuss these in detail, a decision was taken not to dig deeper.

The deeper issue at play concerns how the participants feel professionally about the host culture. There were two stand out views which were present from the participants:

- respect
- understanding

Respect

All of the participants talked about the need for respect in relation to the host culture. Several participants went further than respect to talk about the need for deep understanding of the host culture. This view was held especially strongly in the case of one participant, where a large proportion of students in the school are natives of the host culture.

As stated, all participants viewed the need for respect for the host nation and its culture. This is not entirely unexpected from international school principals. One participant exemplified this respect as 'paying homage to our host' (C9) another talked of 'demonstrating empathy to the context' (F10).

Understanding

Several of the participants were explicit in their views that respect alone is insufficient for successful work in an international context. They indicated that it was, in their view, somewhat superficial. They indicated that there is a need for a 'deep understanding' of the cultural context. This was expressed most strongly by Participant A.

You can't embed or work within a culture in a country unless you have some understanding of it ... and actually, I think, quite a strong understanding of it. And this makes me wince a little bit and this happens all over the place: when I look at and talk to people involved in

leadership of international schools in various different contexts ... I very much notice people that make derogatory comments about the culture in which they're working. And it's surprisingly common where Heads will go, "Oh, that's just what the Spanish are like", or, "That's what they're like in Thailand" ... for me that's a massive alarm bell because it shows... an unwillingness to see a different culture that you are living and working in has its own benefits and own strengths. (A7)

Participant A related this depth of understanding to being able to craft a school culture that is sensitive to the host culture. Participant D followed this theme of understanding in noting that it is essential for all faculty members to actively consider the host culture and think how interactions from the school could be perceived by the broader community.

We always know and recognise that everyone within a culture doesn't act and think the same. (D8)

(2b) Clash of cultures

In the course of the interviews, three of the participants drew on examples where there had been what could be described as a 'culture clash' within their school. The mini cameos below are included to exemplify how these clashes played out.

Example 1: A student wrote a view in a GCSE history essay which the school considered to be offensive. In the case of this cameo, the clash was not with the host culture but between the school culture and the cultural background of the student. In this case:

[The student] wrote in his GCSE History essay that he was glad that the Holocaust was successful because the Jews deserved it for taking Palestine. And that's a 14-year-old who is not somebody with a particularly developed view of that but equally straight away the senior leadership team of the school take that as an issue and manage it with the kid. (A6)

Example 2: The participant cited a scenario where the school was looking to renovate an area of the school and students had been asked to work collaboratively to suggest book covers which could be replicated, life size, to design a more attractive learning environment. In this example, a group of Chinese students had suggested a text which promoted the communist ideal associated with the Tiananmen Square riots. For the school, this was a clash with their liberal ethos and culture.

Example 3: There was a clash between the culture of the school and accepted culture within the host community.

[In] Southern Spanish like a lot of Northern Mediterranean cultures [language used is] not very inclusive and there is quite a lot of institutionalised discrimination and racism ... You have to make a decision I think as a school whether you accept it because it's part of

what the culture is of the country or you have to challenge it. A good example would be the word 'que moro' which is used hugely in Spanish vocabulary which actually means "more" or "black" and it's a derogatory term based on the Muslim conquest of Southern Spain. And little kids and parents use it all the time which means, "That's really black", with the idea that it's somehow inferior. And since I've been in [xx] school ... we've opened up the school much more and we have more Muslim kids in school and [have] Halal food and have a much better understanding of Ramadan and things like that ... And so as soon as you do that it's very important that you're challenging some of the real basic... cultural norms if you like from that part of the world when you have to say they're not good enough, and that's a real challenge with parents. (A6)

The Spanish term used in the extract above is 'que moro'. The literal translation is 'Moroccan/black' or 'que Moroccan' but it is common linguistic currency in Spain for something annoying or negative without really referring to race or skin colour.

Example 4: The participant cited a clash between a parent who represented a host culture view and the school culture.

We had an incident with some sixth formers that were doing things they weren't supposed to be doing and they were all interviewed by me and one of them was quite new in the school, and after being interviewed she ran out of school, ran home upset, and her Mum phoned us up and said, "I want you to forget what my Daughter said; she felt under pressure and now she's going to feel like she's going to be seen as a grass and she wishes she hadn't told the truth". And so that was a really interesting thing because what we did then is we actually brought the Mother in and explained to her that in our school we expect children to tell the truth and other children will expect your child to tell the truth. There isn't this idea of honour amongst thieves or anything like that. And so actually part of that cultural development is with parents as well. In that instance we didn't bring the child back in, we brought the Mother in. (A2)

Each example illustrates a culture clash which, in the eyes of the participants, demonstrate a live example of how their school culture is real and used as a barometer for challenging external views. Examples #1 and #2 evidence a clash between cultures represented by individual students and the school culture. Examples #3 and #4 evidence a clash between the host culture and the school culture. In each example, the school challenged and addressed the clash drawing on and explicit set of views about 'what the school stands for'. This will be further evaluated in Chapter 5.

(2c) Interplay with culture

All participants reflected on the interplay between their own school culture and that of the macro/host culture. Each participant could cite examples where there were moments of tension. Participant C notes that it can be a challenge working in a culture which is not aligned with the school ethos and values but that there is simply a need to be aware of this (C4). Participant A described that sometimes there can be a sense of 'dissonance' (A3).

Participant D took a different view to this issue than the other participants. The view was that rather than seeing a tension, to view the school's offer as different from that which is aligned with the host culture. This view is exemplified below.

I think our school is a lot different from a lot of the other schools and families... they're choosing us because when they come and see us they see that the kids are happy, that there is that sense of care, that their kids are enjoying school and they want that. It's different and maybe again because it's a new school and we've just said from the start this is who we are but I see it less though in this school than I have in other schools, in other schools I have seen the culture of the school impacted more by the culture of the city or the country whereas I see it less here but I think families are wanting something different. (D3)

All of the participants talked of the notion that the school was creating its own micro culture, building 'internationalism and culturalism within the school' (C3). Because of this, there is a perception of high value on the school culture from the parents. This was neatly articulated by Participant B stating that, 'The school is such a haven for so many people' (B4). A point acknowledged by three of the participants is that the interplay with the local culture depends on the composition of the student body. The higher the proportion of local nationals, the greater the interplay with the local culture.

In summary, all participants talked of the need for respect and understanding of the host, macro culture but none saw any direct link between the macro culture in terms of affecting the formation of culture in the school. Each participant could cite example of cultural clashes which arose because of individual student issues or links to the macro culture which clashed with the school culture. When probed, the participants could explain how they tackled these with reference to their accepted school culture. This will be further evaluated in Chapter 5. In the eyes of the participants in this study, they saw their school culture as being somewhat distinct, but respectful of, the host country culture. The school culture was sometimes, distinctly different from the host culture.

Appendix 21: Checklist for evaluating Reflexive Thematic Analysis

The criteria below from Braun and Clarke (2021) based on Braun and Clark (2006) are provided to assist researchers in evaluating their research. The right-hand column outlines my responses in response to the criteria for this piece of doctoral research.

	Criteria from Braun and Clark	Evaluation in relation to this piece of research
1	<u>Transcription</u> : The data have been transcribed to an appropriate level of detail, and the transcripts have been checked against the tapes for 'accuracy'	Transcripts were produced by a third part professional transcription service. Sampled checks were made on the quality of transcription.
2	<u>Coding</u> : Each data item has been given equal attention in the coding process	The coding process was undertaken twice to ensure consistency and replication of outcome.
3	Themes have not been generated from a few vivid examples (an anecdotal approach), but instead the coding process has been thorough, inclusive and comprehensive	Themes represent the breadth of work in the data sample.
4	All relevant extracts for all each theme have been collated	Extracts were collated to identify the most appropriate extracts to use in the written report.
5	Themes have been checked against each other and back to the original data set	Draft themes were identified and the process repeated for a second time. The themes were then checked against each other to ensure a consistency.
6	Themes are internally coherent, consistent and distinctive	I believe that the themes meet these criteria and that the resultant report appropriately tells the story of the data.
7	<u>Analysis</u> : Data have been analysed - interpreted, made sense of - rather than just paraphrased or described	The themes tell the story of the data and the extracts are used for exemplification.

8	Analysis and data match each other - the extracts illustrate the analytic claims	The data extracts match the headline of each theme.
9	Analysis tells a convincing and well-organised story about the data and topic	The overall narrative of the report provides a clear picture of the data.
10	A good balance between analytic narrative and illustrative extracts is provided	The two elements interrelate and support the other.
11	<u>Overall</u> : Enough time has been allocated to complete all phases of the analysis adequately, without rushing a phase or giving it a once-over-lightly	A reflective approach has been used so each process has been revisited cyclically to check for accuracy and to allow opportunity for reflexivity.
12	<u>Written report</u> : The assumptions about, and specific approach to, thematic analysis is clearly explicated	Chapter Three outlines the approach used.
13	There is a good fit between what you claim you do, and what you show you have done – i.e., described method and reported analysis are consistent	There is consistency of this throughout the report, especially in relation to Chapters 3, 4 and 5.
14	The language and concepts used in the report are consistent with the epistemological position of the analysis	I believe that there is alignment between the methodology of this study, data analysis, and data reporting.
15	The researcher is positioned as active in the research process; themes do not just 'emerge'.	There is clarity of this point in Chapter Three.