Organisational Effectiveness and Collaboration Across the System: Literature Review Summary

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Executive Summary

This review has sought to explore organisational effectiveness and the behaviours and characteristics of organisations collaborating effectively across the system. The review has found that the practice of public organisations collaborating across the system describes a broad and complex phenomenon. There is no single, well-defined body of research that neatly traces the theme of the brief. However, there is a rich and diverse set of literatures that provide useful perspectives on the role of organisations, leadership and contextual factors in effective collaboration. The review identified collaborative governance, organisational learning and organisational ambidexterity as prominent literatures in this area and undertook an intensive deep dive review of this research.

Our main finding is that effective collaboration requires careful attention to a range of contextual and procedural factors. Amongst these, organisations and leadership play a vital role, although their effectiveness, and what is required of them, is heavily contingent upon antecedent conditions and contextual factors. We find that organisations must overcome a number of thresholds to become effective in collaboration. The literature suggests that in order to overcome these thresholds organisations must become ambidextrous learning organisations.

The role of leadership, both in supporting effective collaboration and enabling organisations to become ambidextrous learning organisations, was consistently described as facilitative leadership. The literature suggests that facilitative leadership entails leaders acting as stewards, mediators and catalysts. The inherent tensions within these roles and the complexities of collaborative situations limit the capacity for any individual leader to unilaterally fulfil this leadership role effectively. In response, the literature directs us to more collaborative understandings of leadership, whereby leadership action can be located at individual, pluralistic and collectivist levels, and where collaboration is driven by collaboratively defined imaginaries rather than the vision of individual leaders.

There are common themes across the literature concerning how the change required of organisations and leadership is discussed. The first is a theme of deliberation and democratisation, creating more open, bottom-up and empowering spaces for organisations and leadership. The second is the theme of innovation, which the literature threads through its understanding of both the means and the ends of collaboration and learning (e.g. collaborating to innovate and innovating to collaborate). If these themes emphasise

commonality, the other themes emphasise tension and difference. Specifically, realising the opportunities of collaboration and learning finds organisations and leadership grappling not just with complexity but with paradox. Different contexts generate different leadership and organisational dilemmas that require different balances.

This review presents key findings in relation to the questions in the brief. Following this, we provide an overview and the main findings from our reviews of the prominent literatures in this area: collaborative governance, organisational learning, and organisational ambidexterity. Finally, we present the overall conclusions of the review and highlight recommendations for future areas of exploration including a proposed framework for delineating contexts of effective leadership collaboration.

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Our Approach to this Literature Review

The purpose of the brief was to undertake a review examining the behaviours exhibited by organisations that are able to collaborate effectively across the system. Building on previous research into effective leadership qualities, the brief recommended exploring the following qualities and attributes: “adaptive”, “connected”, “ethical”, “innovative” and “creative”. The purpose of the review was to answer the following key research questions:

- What are the key behaviours and/or characteristics exhibited by public service organisations that collaborate effectively across the system?
- What factors facilitate and hinder effective practice within these organisations? (Including - but not exclusively - cultural, relational, situational or contextual factors)
- What, if any, role does leadership play in organisational efficacy? Where is leadership situated within the organisation? What can senior leaders learn from this?

The review was approached through three main stages, (1) a preliminary review, (2) an abstract review, and finally, (3) a deep dive of key papers and themes.

The **preliminary review** sought to test the search terms suggested by the brief. The brief recommended that the review take a bottom up approach to determining the appropriate characteristics rather relying solely on a predefined list. Therefore, the purpose of the preliminary review was to test how useful the suggested search terms were, identify potential synonyms and any alternative attributes or qualities emerging from the initial search. It was found that “connected” did not produce helpful results and did not feature prominently as a term in the literature. “Ambidextrous” emerged as a quality recognised in the literature and emerging as an increasingly significant area of research and was therefore added to the search terms. Following this review, it was agreed that the abstract review would focus on six searches, a general search of organisational collaboration, and five further searches exploring the qualities of “adaptive”, “ethical”, “innovative”, “creative”, and “ambidextrous”.

The **abstract review** involved six searches of abstracts repeated across five academic databases capturing discussion of public organisation collaboration and organisational effectiveness across academic fields and disciplines. The results of these searches were analysed through an abstract review. The search returned 5,315 results. These were then filtered further to 329 papers based on the preferences expressed by the NLC, including a preferred focus on the UK and similar regional contexts, and discussion of public administrations and large organisations. A full breakdown of the search terms, databases

and results can be found in Appendix 1, while the findings of each of the searches can be found in the separate Abstract Search documents.

In our review we summarised key themes and findings as available in the abstracts. These include identifying each paper's relationship to the themes, and noting how they talk about leadership; theories, concepts and the context in which collaboration across organisations are discussed; the ideals or outcomes the studies explore or variables that the paper tests; factors identified as facilitating organisational collaboration or the given attribute or quality (e.g. innovation); sources of failure, barriers and challenges to collaboration or the given attribute or quality; and finally the methods described in the papers. The initial findings of the abstract review were presented to the NLC and a selection of papers and themes for further exploration were considered for a deep dive review.

The **deep dive review** of key papers and themes focused on three principle areas: collaborative governance, organisational learning and organisational ambidexterity. These three areas form the structure for this review. A selection of key papers from the abstract review were used as the starting point for further exploration of the material. From these papers we utilised a method of snowball sampling, whereby citations appearing from these papers were explored to gain a richer understanding of the material, identify key authors, and capture the scope of theoretical and empirical research in these areas. We draw out the conclusions from these studies in this report.

Key Findings

What are the key behaviours and/or characteristics exhibited by public service organisations that collaborate effectively across the system?

There are a number of characteristics that predict how effective or comfortable public organisations will be in collaborating across the system.

- **Institutional design and the structural openness** of the organisation is significant. For example, an organisation may be designed to be more open to public engagement or forced through the nature of the work to engage regularly with the community or other organisations, building a history of working with others. This can be contrasted with organisations that are structurally designed to be more closed. This can be due to a tradition of intentionally isolating an organisation from engaging with the public or other actors to avoid corruption and prevent powerful interest groups from influencing outcomes (Ansell 2011).
- Related to this is the **tradition of professionalism and understanding of expertise** within the organisation. An organisation may have an understanding of the status of its authority as rooted in the expertise of their professionals that makes them resistant to share that expertise or share decision making with people they view to be non-experts. In contrast where agencies understand the role of values in decision making and the legitimacy issues inherent in their field, there can be an acceptance for the need for collaboration, wider engagement and public input (Blacker et al 1999).
- Organisational **centralisation** is a further significant factor. Agencies with strong internal centralised decision making often have more distant relationships with communities or organisations. Decentralised and locally based organisations find it easier to collaborate.
- The **legal mandate and legal understanding of the organisation's responsibilities and role** has an impact. Agencies may understand their legal mandate in a way that makes it difficult for others to be involved in decision making. In other cases, the legal mandate may be written in such a way to encourage collaboration.
- An organisation's sense of **interdependence** and understanding of their mission as distinct from other agencies. Typically, many agencies would rather do things by themselves without collaborating, but some agencies have learned that it is difficult to complete their mandate or mission without collaborating with other organisations or the public. This is sometimes described as how turf or mission orientated the organisation is (Reilly 2006, Ansell and Gash 2008).

The factors listed above describe features of an organisation that may determine how likely it is to collaborate, yet they do not tell us how organisations can collaborate well. In order to do so, the literature suggests agencies must overcome a number of thresholds.

- Firstly, they must be **willing to come to the table**. Many organisations collaborate because they are forced to or because they are afraid to lose out.
- Secondly, while an organisation may be willing to collaborate, this does not mean they are psychologically prepared for collaboration, they therefore have to **believe other agencies have a legitimate point of view**. This may be a trivial or a profound threshold for agencies to cross such as where there are high levels of political conflict. For example, in environmental decision making where organisations have fundamentally different goals, or where collaboration is forced upon interdependent agencies with histories of antagonism and mistrust, the capacity to overcome this threshold can be the central feature of the collaborative process (Futrell 2003). In other cases, this issue will be trivial. For example, collaborative efforts to address homelessness or improve mental health services, where partners are aligned on the goal but disagree or currently lack an understanding of how best to achieve the goal.
- The third threshold, expressed in the language of negotiation theory, involves **moving from a positional bargaining orientation to a problem solving orientation**. In a positional approach an actor only wants to get as much as they can from a situation, and "beat" the other actors. In a problem solving approach, the parties come to an understanding that there is a problem that they have to solve together.
- The final threshold involves parties in the collaboration taking ownership of the problem and **collective responsibility for solving the problem** together (Ansell 2011). This development can also be expressed in the language of discourse ethics and deliberative theory[1], in which there is a move from bargaining or strategic action aimed at maximising individual utility to deliberation or communicative action orientated towards the common good or a shared understanding.

The literature emphasises that these stages are iterative rather than linear and context dependent. It illustrates the changes required in the attitudes of organisations to collaborate effectively. To understand what is required to implement these changes, including what internal changes must take place within the organisation for them to become more collaborative, the literature directs us towards **theories of organisational learning and**

[1] **Deliberative democratic theory** can be understood as an approach to democratic legitimacy that emphasises accountability through reasoning giving and participation in deliberative decision making (Dryzek 2010, Gutman and Thompson 1996). Key concepts in deliberative theory include Habermas (1962) account of the public sphere (a space in which individuals engage in reflective-critical discourse to resolve social problems) and **discourse ethics** (the regulative ideals that govern authentic communication) (Habermas 1981). This school of thought is dominant in democratic theory resulting in the "deliberative turn" (Dryzek 2010).

organisational ambidexterity. This describes organisations with the ability to switch between modes of exploitation for improvement where incremental learning is appropriate in a stable situation to a more explorative collaborative mode where learning is emergent and based on the presence of collaborative sensemaking architectures and processes around the problems at hand (Wilson et al 2016).

For example, the literature suggests that to move from a positional orientation to a problem orientation, an organisation must move from a hierarchical model of administration to a problem orientated model in which they are focused on solving problems. While it may appear that agencies and organisations aim to solve problems, the literature suggests that many public agencies are not set up well to do this. Instead, they are set up to perform established objectives in a routine way rather than solve problems in a flexible way. To move to a problem orientated approach requires the organisation to become a learning organisation or an organisation that is able to balance the demands of exploitation (the efficient administration of routine tasks) and exploration, which is to say an ambidextrous organisation.

Ansell (2011) argues that an organisation cannot become a problem oriented organisation until it becomes a learning organisation. He uses the example of policing and the concept of problem oriented policing to illustrate his argument. In this case, policing agencies are set up to impartially administer justice in a routine way, which is not conducive to flexible problem solving. In order to make this adjustment, Ansell (2011) argues the organisation must become a learning organisation[2]. The kind of problem solving described in the literature requires experimentation or exploration, with an acceptance of the possibility of failure, as the solutions cannot be known in advance.

At this point, we can observe that the conversation has shifted from one about how organisations collaborate, to how organisations learn, solve problems, innovate, and balance the demands of exploitation and exploration. It is here that the literature disperses into different directions. Specifically, it branches out in relation to where the agent of change is located. For some scholars, this becomes a question of leadership, for others a question of organisational culture, human resource management (Emery et al 2016), or process design. We find further divisions as research explores what needs to happen at these locations and tests certain methods for achieving innovation. In this respect we can observe interest in design thinking, dialogues, imaginaries[3] (Quick 2017), inclusive

[2] Ansell (2011) explores this in the context of "problem oriented policing". Problem oriented policing is a more established approach to tackling crime that involves identification of a specific problem and an analysis of its root causes and methods of solution. This can be contrasted with policing that is "incident driven" and aimed at resolving individual incidents rather than groups of problems (See also Eck and Spelman 1987).

[3] Broadly speaking, an imaginary is the set of values, institutions, laws and symbols through which people imagine their social whole. It is common to members of a particular group or society. In the context of collaborative governance, the term is used to denote collaboratively defined/collective understandings of a collaboration in contrast to the visions located in any one individual or leader. Imaginaries can inspire action without being driven by central leadership (see Quick 2017).

organising, collaborative platforms, and "New Ways of Working"[4] (Moll 2015) as potential routes to learning, problem solving and innovation.

What factors facilitate and hinder effective practice within these organisations?

The literature on collaborative governance and networks organises discussion around collaboration. In this sense, all other elements orbit collaboration: contextual factors, individuals, organisations, processes and outcomes are all understood in relation to collaboration. From this perspective, the organisation is often viewed as one of many elements in the environment that can make collaboration more or less difficult. Typically, the organisation is treated as a hinderance to collaboration, being a source of objectives, ethics, and culture distinct from those of the collaboration, and thus an obstacle to be overcome in any collaborative situation. In this sense, from the perspective of much of the literature the organisation exists as a fixed object, orbiting lifelessly around any collaborative situation.

The questions in the brief invites us to look at the process from the point of view of the organisation. The insights on problem orientation, organisational learning and organisational ambidexterity invite us to see the organisation as a more dynamic object, capable of driving collaboration, problem solving and innovation, in much the same way that leadership is perceived to be a dynamic element. With this in mind, we advocate a framework for understanding the contextual and process related factors that is grounded in the collaborative governance literature (notably Ansell and Gash's 2008 framework), but also introduces organisational orientation as a way of talking about the factors captured in the learning and ambidexterity literature. In summary, we have used a framework which brings together the following areas:

- Context and influences
    - Starting conditions
        - Power-Resource-Knowledge Asymmetries
        - Incentives for and constraints on participation
        - Prehistory of cooperation or conflict
    - Facilitative leadership
    - Institutional design
    - Organisational orientation
- Collaborative Process
    - Face to face dialogue
    - Trust building
    - Commitment to process

[4] See discussion below on page 37.

- Shared understanding
- Intermediate outcomes

Further detail and discussion of these contextual and procedural factors are presented in the section on collaborative governance.

Disadvantages and the Dark Side of Networks and Collaboration

Finally, it is helpful to note that authors warn against treating collaboration as a good in itself, highlighting the pitfalls of collaboration and the dark side of networks. The pitfalls of collaboration include loss of control, loss of flexibility, loss of glory and direct resource costs. The literature emphasises that collaboration is a costly process and unless the case for real collaborative advantage[5] is clear, it is best to avoid it (Huxham 2003 in McGuire 2006). O'Toole (2004) reminds us that collaboration across networks is not merely a function of increased problem-solving capacity but often involves political calculation and, because of this, is vulnerable to co-optation and manipulation. Collaboration may be used to dodge responsibility or obscure accountability. Raima et al (2018) also discusses evidence of networks beset by power differentials in which elites preserve their own interests, of networks producing downward levelling norms among members, the presence of bullying, "negative social capital", and cycles of disadvantage. Collaboration may cause organisations to unlearn competencies and skills.

Evidence on the significance of factors

One of the questions emerging from the brief included consideration of the evidence around the character and strength of influence of different factors. In some ways this is an impossible question to answer in the abstract, as the presence and interplay between different factors will vary widely and can perhaps only be understood in detail on a case by case basis. For example, strong facilitative leadership may be far more important in a collaborative situation characterised by conflictual relations and power asymmetries, yet an

[5] The **theory of collaborative advantage** is developed by Chris Huxham and associates. While it is inspired by the concept of competitive advantage it is not restricted to situations of competition. Vangen and Huxham (2012) describe the "theory of collaborative advantage" in terms of collaboration which is a "formalised, joint working arrangement between organisations that remain legally autonomous while engaging in ongoing, coordinated collective action to achieve outcomes that none of them could achieve on their own". This concept is set in tension with the idea of "collaborative inertia", describing the tendency for collaboration to be slow to produce output, uncomfortably conflict ridden, or where successful outcomes involve "pain and hard grind" (Huxham and Vangen 2005).

Huxham and MacDonald (1992) suggest one way of thinking about collaborative advantage is in balancing the pitfalls of individualism and the pitfalls of collaboration. The pitfalls of individualism are described as repetition, omission, divergence and counter-production, while the pitfalls of collaboration include loss of control, loss of flexibility, loss of glory, and direct resources costs. Research in this tradition emphasises the sense in which collaboration is a costly process that is only likely to be successful under very specific circumstances, while leadership involves careful balance and the negotiation of paradoxes emerging from these circumstances.

absence of such leadership may be more easily managed in other contexts. For the purposes of indicative guidance there have been efforts to understand the character of different factors (i.e. whether they influence and/or determine effective collaboration), and the level of influence different factors have (from weak to strong). Kozuch and Sienkiewicz-Malyjurek (2016) provide a detailed account of mutually complementary factors and their assessment of impact based on a process of a literature review and focus group discussions with scholars (the details of this are presented in Appendix 5).

What, if any, role does leadership play in organisational efficacy? Where is leadership situated within the organisation? What can senior leaders learn from this?

Leadership is consistently presented as a crucial element to collaboration and organisational efficacy, including organisational learning and organisational ambidexterity. A key adjective that is used to describe leadership in the context of collaboration and learning is "facilitative". Before advancing an account of what this entails it is helpful to note two caveats.

Firstly, the review finds variation in how leadership is conceptualised, and a proliferation of labels and frameworks used to identify and analyse the elements of effective leadership. This variation reflects significant developments in how leadership is understood in a collaborative context which reflect ideas that recur across the literature even if the precise terminology varies. In other cases, the variation is perhaps better understood as a symptom of different theoretical perspectives or preferences in terms or points of emphasis. For example, we identified consistent themes of building trust, motivating and empowering others, rallying members around shared goals and norms, and utilising and synergising different knowledge and skills.

Secondly, there is a challenge in analysing the role of leadership due in part to its residual quality (Ansell and Gash 2012) as leadership is involved in all aspects of collaboration, from inception through to completion. It is often the most visible aspect of group action and leaders assume responsibility for outcomes both good and bad. Leaders are often the proximate cause of success and failure of collaboration, but their ability to work effectively depends on other less proximate factors. This can lead to a tendency to load too much explanatory weight on leadership (as suggested by criticisms of the "great man" view of history). Furthermore, with more expansive notions of leadership especially common in discussions of collaboration, such as collective or distributed leadership, the role of leadership can become expansive and its boundaries blurred, again exacerbating the potential for too much explanatory weight being attributed to leadership.

Facilitative Leadership

With these caveats in mind we may proceed to make sense of what is meant by a "facilitative leader". Ansell and Gash (2012) provide a persuasive account of facilitative

leadership consisting of three separate leadership roles: steward, mediator and catalyst. In understanding how these leadership roles are fulfilled, their analysis draws on a further distinction between “professional” and “organic” leaders which describes the starting conditions of the leader rather than their formal role. Professional leadership stresses neutrality and professionalism, frequently from agents outside of the community of stakeholders. Organic leadership stresses expertise, social capital and local knowledge, typically of agents within the community of stakeholders. This distinction articulates a tension regarding the optimal intensity of involvement of leaders which is common in the literature, though expressed in different ways. The professional and organic leader have different strengths and weaknesses in fulfilling elements of the roles of steward, mediator and catalyst.

A **steward** establishes and protects the integrity of the collaborative process. While stakeholders may be encouraged to “take ownership” of the collaborative process, this takes work and time. In the early stages, leaders play a role in representing the collaborative process. Skills and strategies of such a leadership role include lending reputation and social capital to convene the process, establishing inclusiveness, transparency, neutrality and the civic character of the process, and managing the image and identity of the collaboration. The organic leader may be well suited to convening the process, leveraging their social capital, reputation and authority to ensure commitment and drive the collaborative process forward. The professional leader may be more adept at establishing ground rules and reassuring stakeholders of the neutrality and integrity of the process. Successful stewardship is often associated with leaders who are willing to compromise, and presenting themselves as humble, observant and thoughtful, and in some cases sacrifice their own interests for the collaboration (for example, in relation to funding or participation in meetings). The literature suggests successful stewardship relies on advantageous starting conditions (e.g. leaders possessing social capital), and a particular mindset. Yet there are also opportunities for development and training in skills relating to facilitation, to ensure inclusiveness and managing the process so everybody feels they have a voice.

A **mediator**, arbitrates and nurtures the relationship between stakeholders. Since stakeholders hold diverse perspectives and interests, they do not necessarily see eye-to-eye. Therefore, leaders are called upon to mediate and facilitate positive exchanges, through the adjudication of conflict, to arbitrage between different positions, to stabilise the conditions for positive exchange and promote trust building. The level of conflict can vary profoundly. In some cases, collaboration can emerge from deadlock and bitter mistrust as a form of alternative dispute resolution. Yet even where there are strong pre-existing relationships, maintaining good will remains a priority. The mediator must also facilitate communication and translation of perspectives to ensure the construction of shared meaning. Even where conflict is low, stakeholders may struggle to understand each other and align perspectives. The mediator has a stabilising role to prevent negative dynamics emerging within

collaboration. Finally, the mediator must facilitate trust building, typically through building virtuous cycles and intermediate outcomes.

Successful mediation is contingent upon a range of factors and antecedent conditions. If these conditions are stacked against effective conflict mediation, even the most skilful mediators could not be expected to be successful. The role of steward and mediator are also interrelated, if the integrity of the collaborative process is not maintained, a mediator will be unable to effectively mediate and build trust. The literature also suggests successful mediation, building relationships and trust, requires time and patience that may be in conflict with pressure for efficiency. The balance of involvement presents a dilemma. On the one hand the professional leader may be well placed to act as an honest broker where perceptions of neutrality are important, yet a more interventionist approach may be required which relies on social capital associated with organic leaders. Similarly, an organic leader's expertise or intimate knowledge of the issue may facilitate the construction of a shared understanding. The development of relevant skills for the mediator role include communication and negotiation skills broadly and dispute resolution specifically.

A **catalyst** identifies value creating opportunities and mobilises key stakeholders to pursue them. Skills and strategies of catalysts include systems thinking, the ability to frame or reframe problems, and to create mutually reinforcing links between collaboration and innovation. The position of the catalyst is quite distinct from that of the mediator and steward, as they are required to be more entrepreneurial and proactive in their role. They are however limited in their capacity to act unilaterally and therefore must work through the actions of stakeholders, and furthermore exploit possibilities for expanding further collaboration and innovation. In other areas, this type of leadership is present in discussions of boundary spanners[6], synthesising[7] (Arganoff and McGuire 2001), synergy and creativity. Evidence suggests that successful catalysts must have a deep understanding of the topic of collaboration.

Collective Leadership and Locating Leadership

It may be helpful to consider a few observations on facilitative leadership. The literature suggests that facilitative leadership will typically require leaders to balance all three of the roles outlined (steward, mediator, catalyst), while antecedent conditions, system context,

[6] The term **boundary spanner** is used to describe individuals with a role in managing across organisational boundaries (Williams 2002). Ranade and Hudson (2003) describes how boundary spanners develop more complex models of social problems, and broader more inclusive solutions through their commitment to collaboration. There is an important balance between being a constructive partner, while not being co-opted and maintaining trust across groups (see Stewart and Ranade 2001). There are various ways of talking about the tasks of boundary spanners (see Ranade and Hudson 2003). Descriptions highlight the following qualities or skills: steering, negotiation, providing flexible vision, facilitation, communication and interpersonal skills including mediation.

[7] The capacity to bring together various ideas, interests, viewpoints and goals, to expand the number of alternatives being discussed by the network, and utilise different partners' skills, has been found to be important for achieving a shared vision of the problems and solutions.

and collaborative goals (e.g. service delivery, consensus building, creative problem solving) will influence the relative prominence of these roles and ease in enacting them (Ansell and Gash 2012). Finally, the literature suggests the capacity for any individual is fundamentally limited in enacting the leadership required. This can be understood in part due to the conflicting and paradoxical demands of the different leadership roles, but also due to the sense in which the demands of facilitative leadership push leaders into situations in which they are giving up control and encouraged to embrace a degree of openness and collective leadership. This directs us to accounts in the literature of collective leadership and collaborative capacity builders, whereby leaders empower others, space is provided for collective ownership of the process and leadership becomes understood as a more collective phenomenon.

The demands of collaboration push us to more pluralistic[8] and eventually collectivist[9] understandings of leadership. An individual leader with a strong vision may achieve some success in inspiring others, bringing stakeholders into a collaborative arrangement and mobilising action. The literature suggests that there are limits in how far we should expect this type of leadership to produce effective collaboration. Sustainable collaboration is likely to require compromise and flexibility on the shared vision, as the collaborative process navigates differences amongst stakeholders and enables all stakeholders to have a meaningful voice. This is likely to manifest in multiple actors contributing to the vision and enacting leadership roles within the network. Furthermore, collective ownership of the project and the kind of innovative problem solving often desired of collaborative arrangements appears to be associated with a shift from a collaboration organised around an individual's vision to one characterised by a collective imaginary that is coproduced and implemented collectively.

The literature on collectivist leadership provides us with a clearer sense of what facilitative leadership, and the roles of stewards, mediators and catalysts, entails. The terms collaborative capacity builders[10] and boundary spanners are frequently used in the literature

[8] **Pluralistic leadership** involves multiple actors in multiple sites not only working in multiple domains, but specifically influencing other domains, either to coordinate actions or exert influence. Leadership action is still located at the level of individuals, but multiple individuals (Quick 2017).

[9] **Collectivist leadership** involves multiple actors co-constructing a platform for emergent, mutually influencing partnerships. Leadership action is located at the level of the collective and cannot be reduced to the action of specific individuals (Quick 2017).

[10] Weber and Khademian (2008) introduces the concept of **collaborative capacity builders** (CCBs) and shifts the focus on to leader's mindset (in contrast to competencies and behaviours). The mindset of effective collaborative capacity builders is expressed in a series of commitments:

- A commitment to govern within the rules yet think creatively
- A commitment to networks as mutual-aid partnerships with society
- An acceptance that a CCB can be someone without an official government portfolio
- An understanding of the inseparability of performance and accountability in wicked problem settings
- A persistent commitment to the collaborative process

to articulate how the actions of individuals can fulfil leadership roles in the more pluralistic and collectivist levels of leadership.

Facilitative Leadership for Collaboration, Learning and Ambidexterity

The discussion thus far has focused on the role of leadership in the context of networks, yet we have also highlighted the importance of leadership within organisations in transforming an organisation into a problem solving oriented organisation, or a learning or ambidextrous organisation and the connection of these developments to effective collaboration. Literature on network leadership and collaborative governance tends to treat leadership in collaborations and networks as radically different to leadership in hierarchical contexts in single organisations. While we acknowledge there are differences, we would suggest the contrast made in the literature is in part symptomatic of a reductive understanding of organisations in collaborative situations and is at odds with the organisational learning and organisational ambidexterity literature.

The language used to describe leadership in organisational learning is remarkably similar to that which we have reviewed in the collaborative governance context. Organisational learning is characterised as facilitative leadership (Slate and Narver 1995), requiring a steward for the purpose of clarifying mission and establishing shared vision and values (Senge (1999). It demands leaders demonstrate and mobilise commitment to learning, encourage systemic thinking, and the sharing and integration of knowledge. Most discussions emphasise enabling an atmosphere of openness and psychological safety. There are clear echoes in these descriptions of the roles of the facilitative leader in collaborative governance. Similarly, the organisational ambidexterity literature emphasises good dialogue, commitment, a culture that allows mistakes, a system view, and the aspirations of employees and wider stakeholders (Aargaard 2011). Additionally, we may identify a move towards more pluralistic and collectivist understandings of leadership in the form of bottom up initiatives, the utilisation of large multi-layered networks of internal and external actors and interorganisational cooperation (Boukamel and Emer 2017).

We would suggest that the similar, in some cases identical, language used to describe leadership in the context of collaborative governance, organisational learning and organisational ambidexterity reflects genuine parallels in the type of roles required to enact leadership and the levels (individualistic, pluralistic, collective) in which the action of leadership is located. There is also a shared orientation towards more deliberative, collaborative and participatory understandings of organisations and leadership. Organisations present their own set of antecedent conditions that differ from network settings, which produce a change of emphasis (e.g. creating an atmosphere of openness and psychological safety in an organisational setting may intuitively describe a similar process as facilitating dialogue and ensuring everyone has a voice in a collaborative/network setting). Furthermore, while the purpose of leadership may be conceptualised in relation to different objectives (collaboration, learning and ambidexterity), it is helpful to note that we are

already speaking at a certain level of abstraction from the real context and the real goals of a given case. These real, case specific goals, vary significantly, altering the demands on leadership and organisations and there may be some alignment in practice given the interrelated nature of these approaches.

Review of Key Literatures: Collaborative Governance, Organisational Learning and Organisational Ambidexterity

The review identified three prominent fields of literature relating to organisational effectiveness and collaboration across the system: collaborative governance, organisational learning and organisational ambidexterity. This section explores these literatures in greater depth. Each section provides an overview of the literature, key findings emerging from the research, and a selection of case studies that illustrate key issues in the research.

Collaborative Governance

Overview

The review revealed a body of literature concerned with how public agencies collaborate with other organisations and actors in order to deliver a service, achieve a shared objective or address a challenge or wicked problem. This literature identified its subject using a range of terms including "collaborative governance", "governing collaborations", "collaborative public management", "public network management", "interorganisational collaboration", "participatory management", "interactive policy making", "stakeholder governance" and "collaborative management". The different terms sometimes denote subtle distinctions in the context of collaboration (e.g. who is involved or how formal the arrangement is), sometimes they denote different perspectives or priorities of the researcher (e.g. a focus on management or leadership). Frequently, however, they reflect only the preferred phrasing of a given author. In this way, terms are often used interchangeably, and the distinctions suggested in some papers are not always upheld throughout the literature.

The literature is united by a broadly shared understanding of the challenges facing public agencies and the issue that these collaborative arrangements are responding to. Many papers describe a series of challenges that create an imperative for collaboration across networks. Multi-organisational arrangements that seek to address problems that cannot be solved, or easily solved, by single organisations. Many papers refer to increased demands and expectations on public services, the complexity of contemporary social challenges, Rittel and Weber's notion of "wicked problems", and complex policy problems (Silvia 2011, Weber and Khademian 2008). The literature appeals to the failures of managerialism and market mechanisms to adequately address these challenges and the increased dependence on actors and expertise outside of individual public agencies creating an imperative for collaboration and inter-organisational cooperation. This discourse is sometimes placed within the context of a discussion of institutional fragmentation and siloed government creating an environment of inter-organisational interdependence. Or alternatively the impact of New Public Management [11] reform in "hollowing out the state", fragmenting

[11] New Public Management is an approach to running public services that draws on models and techniques used in the private sector. This includes a wide range of practices and reforms such as emphasis on "customer

government and introducing competition in ways that generate challenges and unintended consequences in policy implementation (Kool and George 2020). The most recent UK investments in partnership working (Local Strategic Partnerships and Local Area Agreements) found mixed results identifying tensions between efficient decision-making and wide participation and weaknesses in resourcing, accountability and communication of 'partnership governance'. (Geddes et al 2007, Wilson et al 2011).

The conceptual distinction between organisational forms, the market-hierarchical-network typology, is heavily influential across the literature. In this respect, interest in collaborative governance can be understood as part of a rising interest in networks across sociology,

service", performance standards, outsourcing, competition and quasi-market structures. Alongside wider concerns about how well private sector practices translate to the public sector and the unintended consequences of such reforms, the literature reviewed has highlighted concerns around its relationship to collaboration, innovation and learning. Although the approach itself can be understood as innovative, the emphasis on efficiency and focus on the private sector is often understood to be restrictive and in tension with what is needed to enable collaboration, learning and innovation. The reviewed literature suggests the approach has fallen out of favour and its limitations are well explored.

political science and public administration (see Ansell 2006, Sorensen and Torfing 2007).[12] This framework informs the contrast that is made in the research between hierarchical leadership and network leadership, as well as the critique of the dominant New Public Management thinking, which emphasised market organisation through contracting, privatisation and competition. In this context, collaborative governance can be understood as an alternative to hierarchical/managerial and market/adversarial modes of policy making and implementation (Ansell and Gash 2008, Weber and Khademian 2008). McGuire (2006) describes how empirical work suggests that a clear distinction between hierarchies and collaborative management is not always accurate, and that in practice blending the two is common. Instead of a flat, self-organising network, the presence of a lead organisation acting as a system controller or facilitator is often a critical element to the effectiveness of the collaborative process. The conceptual language of collaborative governance is also heavily informed by wider discussion of inter-organisational collaboration that emphasises an "open system" perspective whereby organisations must engage with their environment to prosper and survive (See Gray 1989).

[12] The term network is commonly stated as the unit of analysis. At its most abstract, a network is formed when ties and interactions, whether formal or informal, are forged between a multiplicity of actors (Ramia et al 2018). Yet the term network is deployed in different ways denoting different theoretical perspectives and assumptions about who takes part and how they are collaborating.

The term **governance network** derives from the network governance literature and the hierarchical-market-network typology. This term is deployed to describe a formal network based on connections between formal actors, organisations and sectors. It is a much more general phenomenon not specific to agencies in the public sector. It should be further noted that in practice, the networking that occurs within governance networks is both formal and informal.

A **social network** is a delineated social structure of nodes or actors (concrete population with boundary specification) and relationships that rely on reciprocity and trust between members (dyads). The method of **social network analysis** is used to draw out the size (number of ties or degrees) and strength (closeness and frequency of contact) of each member's intra-network connections, as well as asymmetry or the number of indegree ties (where resources come in to the network) and outdegree ties (where resources go out). As with network governance, social network describes a far wider phenomenon than that captured by the collaboration literature. Social network concepts are prominent within the collaboration literature and have been advocated as a way of improving the understanding of the informal dimension of network governance (Ramia et al 2018).

A **policy network** is used to describe policy communities where interdependent actors, both the public and the private exchange relations. Some scholars have also identified **issue networks** formed by policy activists, interest groups, academia and sections of the government but with variations in participants and the degrees of interdependencies (Thatcher 1998 in Torfing and Ansell 2017). The policy network tradition emerges from political science and specifically concerns actors who take part in policy decision making. The definition includes formal and informal networking. **Interorganisational service delivery and policy implementation** is derived from organisation theory and refers to resource-sharing and co-ordination among organisations with networks being the vehicle by which policies are implemented and delivered (Ramia et al 2018). **Managing networks** is derived from public administration and focuses on the utilisation of networks to solve policy problems.

The empirical applications of collaborative governance reviewed for this research are presented in Appendix 2.

Summary of Findings

What do organisations need to do or be to be effective?

In a collaborative context, a number of characteristics of the organisation determine the ease with which it will collaborate. These include institutional design and structural openness, institutional understandings of the status of expertise and professionalism, centralisation, legal mandate and understanding of its own responsibilities, and organisations demarcation of its territory in respect to other organisations and perceptions of interdependence.

Beyond this, organisations must overcome a series of thresholds to collaborate effectively, they must be willing to come to the table, they must believe other agencies have a legitimate point of view, they must move from a position of bargaining to a position of collective problem solving and finally organisations must take ownership of the responsibility of solving a problem collectively (Ansell 2011, Saarikosko 2000).

In order to meet the demands of the last two thresholds, the literature suggests an organisation should become a problem solving oriented organisation. It is argued that in order to become a problem solving oriented organisation, an organisation must become an ambidextrous learning organisation. We suggest that this requires agencies to balance the demands of efficient execution of its responsibilities, with a capacity to be flexible and explorative in identifying ways of becoming more effective in collaborating, innovating and solving problems. The concept and implications of learning organisations and ambidextrous organisations are presented in the sections below.

What context is needed for them to be effective?

Many scholars note that collaboration is a costly process and cannot be understood as a politically neutral good in itself (O'Toole 2004). In this sense collaboration should only be undertaken in circumstances where there is a clear case for collaborative advantage (Vangen and Huxham 2003, 2012, Huxham and Vangen 2005, Huxham and MacDonald 1992). In addition, a range of contextual and procedural factors have been identified as significant in the capacity for organisations to collaborate effectively. In summary the literature suggests that these are:

- Context and influences
    - Starting conditions
        - Power-Resource-Knowledge Asymmetries
        - Incentives for and constraints on participation
        - Prehistory of cooperation or conflic

    - Facilitative leadership
    - Institutional design
    - Organisational orientation
- Collaborative Process
    - Face to face dialogue
    - Trust building
    - Commitment to process
    - Shared understanding
    - Intermediate outcomes

Context and Influences

Starting conditions: real or perceived **asymmetries in power, resources or knowledge,** can cause parties to refuse to take part or, if they do collaborate, the asymmetries can weaken trust and commitment and leave the process vulnerable to manipulation (Gray 1989, Short and Winter 1999, Sussking and Cruikshank 1987, Tett et al 2003, Warner 2006). The **incentives for stakeholders to participate** in collaboration involve consideration of the costs and benefits of participation. High interdependency and the lack of alternative methods for achieving goals increase incentives to participate, while unfavourable asymmetries and alternative opportunities to achieve goals can steer agencies away from collaboration (see Andranovich 1995; Chrislip and Larson 1994; Gray 1989; Nelson and Weschler 1998; Susskind and Cruikshank 1987). A **prehistory of antagonism or cooperation** between agencies is a further significant factor. Collaborations between antagonistic or conflictual parties must overcome challenges around trust, commitment and strategic action in order to cooperate effectively. Dialogue can be an important element to overcoming these issues and trust can be developed as part of an iterative process, creating a virtuous circle based on incremental achievements (Ansell and Gash 2008).

Facilitative leadership: Leadership is seen as crucial for facilitating collaboration (Burger et al 2001, Chrislip and Larson 1994, Frame et al 2004, Gilliam et al 2002, Gunton and Day 2003, Heikkila and Gerlak 2005, Huxham and Vangen 2000, Imperial 2005, Lasker and Weiss 2003, Margerum 2002, Murdock et al 2005, Reilly 1998, 2001, Roussos and Fawcett 2000, Saarikoski 2000, Smith 1998, Vangen and Huxham 2003). At the collaborative level leadership is seen as important to building trust, setting rules, mediating, empowering and involving different stakeholders. At the level of the organisation, the literature also describes facilitative leadership as crucial to enabling the change required to become a learning organisation or an ambidextrous organisation, often in the face of resistance from other contextual factors. The literature suggests that what is required of facilitative leadership is radically different from leadership required in the hierarchical model and is also crucially difficult for a single leader to enact independently. This draws us to the conclusion that effective facilitative leadership entails a shift from a controlling approach to the acceptance of a degree of openness and distributed leadership. This is discussed in the literature in terms of collective leadership or collaborative capacity building, where leaders

are able to empower and build the leadership capacities of others while leadership becomes a more collective phenomenon.

Institutional design: This refers to the institutional design of the collaboration, the strength of the protocols and rules of collaboration and the inclusiveness of the process. The literature suggests it is vital that collaborative processes are inclusive, including stakeholders perceived to be troublemakers. This is crucial for both the legitimacy of the process and the capacity for decisions to be effectively implemented (Andranovich 1995, Burger et al 2001, Chrislip and Larson 1994, Gray 1989, Gunton and Day 2003, Lasker and Weiss 2003).

Organisational orientation: as described above, organisations can be the source of barriers to effective collaboration. Institutional design, traditions that emphasise professional expertise, legal mandates, centralisation, and the demarcation of territory by organisations can inhibit collaborative processes. Organisations can find themselves locked in cultures that demand efficiency to the detriment of the "good waste" required to explore, innovate or solve problems in a collaborative way (Potts 2009). Similarly, organisations may also be trapped in a positional bargaining orientation or competition that inhibits collaboration and knowledge sharing. We may draw on the literature of organisational learning to better understand how organisations adopt a problem orientated approach and become effective at collaborative problem solving. Likewise, we may draw on the organisational ambidexterity approach to better understand how organisations balance the tension between the demands of exploitation and exploration (discussed in the sections below).

Collaborative Process

The stages or phases of the collaborative process have been conceptualised in various ways, however, this approach tends to slip into linear ways of talking about collaboration. Arguably a more helpful approach focuses on components that are commonly agreed to be crucial to the success of the collaboration.

- **Face to face dialogue** is important as a means of breaking down stereotypes, exploring mutual gains and building trust, respect, shared understanding and commitment. Deliberative theory may provide the evaluative tools to enable us to talk about what we mean when we discuss good dialogue, as oppose to dialogue that reinforces stereotypes or has a negative impact (Gilliam et al 2002, Lasker and Weiss 2003, Plummer and Fitzgibbon 2004, Schneider et al 2003, Tompkins and Adger 2004, Warner 2006).
- **Trust building** is a vital, but time consuming and difficult process, it can be facilitated by "small wins" (Vangen and Huxham 2003).
- **Commitment to the process** can be understood in reference to the following thresholds: willingness to come to the table, mutual recognition, problem orientated

approach and ownership of the process (Alexander et al 1998, Gunton and Day 2003, Margerum 2001, Tett et al 2003).

- A **Shared understanding** of either what can be achieved or the problem the collaboration faces needs to be established (Daniels and Walker 2001).
- **Intermediate outcomes**, tangible outputs and relatively concrete small wins can help build momentum for collaboration and create a virtuous cycle that builds trust and commitment to the process (Chrislip and Larson 1994, Roussos and Fawcett 2000, Warner 2006, Weech-Maldonado and Merrill 2000).

The literature recommends that we also be mindful of the dark sides of networks and collaboration, in particular, the potential for networks to produce downward levelling norms among members, bullying, negative social capital and cycles of disadvantage (O'Toole 2004, Ramia et al 2018).

How can this effectiveness be measured/evaluated? How do we know it's a good thing?

The study of collaborative effectiveness concerns a profoundly broad and diverse range of practices and contexts. Perhaps understandably there is not a unified theoretical account of how these practices should be interpreted, analysed and evaluated. Additionally, there is considerable ambiguity and variety at the empirical level on how given concepts can be operationalised and measured. Although we may identify commonalities, this variety can inhibit the efforts to draw lessons across the literature and guidance on what works. The bulk of empirical research is composed of single-case case studies that focus on particular sectors.

This does not mean that there is not high quality empirical work within the context of this diversity and ambiguity. The empirical literature provides us with strong evidence that organisations can collaborate that they are able to develop collaborative capacity even in highly conflictual contexts (Futrell 2003). Furthermore, there is evidence that collaboration can produce valuable outputs (e.g. learning, trust building) (Imperial 2005, Warner 2006, Roussos and Fawcett 2000). Where the evidence is more limited is on the relationship between collaboration and outcomes (e.g. whether collaboration produces benefits). Evaluation of outcomes may be complicated by the contested and flexible nature of the goals of collaboration. A further difficult question to answer is whether collaboration produces beneficial outcomes compared to other methods. Frequently, collaboration takes place as a last resort, where organisations have failed to address a problem. In such circumstances evaluating whether collaboration is a good thing can seem a tautologous exercise. Alternatively, reliable comparisons to non-collaborative situations may be absent and the exercise may rely on counterfactual speculation. In order to make this evaluation we need quite specific contexts. The works of Ulibarri (2015) and Scott (2015) provide good illustrations of rigorous evaluation comparing different levels of collaboration with outcomes. In both cases the results are promising as they find the more collaborative

agencies are, the better the outcome, however there is generally little evidence and the demands on the data set suggest only a narrow group of collaborations could be tested in this way. The data that is needed for this kind of evaluative work would be a data set of units that can be identified as more or less collaborative and output data that can be reliably compared across cases.

Case Studies

Case Study: Facilitative leadership, stewardship: The case of Mayor Heartwell, Great Rapids, Michigan.

Mayor Heartwell used his role to advance environmental stewardship within city government and in the business sector. In 2005, he initiated the Community Sustainability Partnership as a voluntary forum for involving multiple sectors in sustainability, and its membership has since grown from five to over 200. In 2006, he oversaw a change in the city's strategic planning process from annual budgets and work plans to five-year ''sustainability planning'' cycles that incorporate longer timeframes and the ''balanced triple bottom line,'' an approach to integrating social, environmental, and fiscal features into planning and evaluation that Wege (a local philanthropist) had developed for Steelcase's operation and subsequently convinced the city to adopt. The new planning cycles and bottom line framework have involved creating goals involving both government operations and cooperation from other organisations and consumers. Senior city management has actively participated, with a sustainability manager regularly tracking and motivating progress, while the directors of planning, public works, and parks have all aggressively and successfully pursued grants and bonds to advance these goals (Quick 2017).

Case Study: Individualist, Pluralist and Collectivist Leadership. The case of environmental leadership in Grand Rapids, Michigan.

Quick (2017) describes the case of environmental leadership in Grand Rapids, Michigan. Initially we may observe individual actors working on green issues within their own organisation or domain. Philanthropists and local businesses invested in developing greener practices. This included innovative design of a company headquarters in Grand Rapids which became one of three buildings used to create the national leadership in energy and environmental design (LEED) standard of the U.S Green Building Council. This captures leadership action at its most individualistic. In the next stage, enthusiasm for green practices grows with other business using the standards and practices developed, stakeholder groups convene to try to coordinate action, the Mayor of the city develops incentives for renewable energy, while the philanthropist makes achieving LEED certification a condition of donations. This represents more pluralistic leadership, where people adopt goals that require multi-party cooperation and network collaboration. By 2006, Grand Rapids became the city with the highest area of LEED-certified building space, this statistic was not the realisation of a specific goal anyone set out to accomplish yet it became important for

mobilising an “imaginary” of Grand Rapids as a green city. In the next stage multiple actors are mobilising, not around visions set by individual leaders, but by this shared imaginary which is interpreted and acted on in various ways. These efforts are fuelled by organising an inclusive steering committee that enables various stakeholders to co-produce what “green” means and enables multiple spaces for innovation. By this stage the vision is not being determined by an individual leader but emerges from a shared imaginary and is developed through collectivist action. This stage may be described as collectivist leadership. This is an oversimplified account that aims to illustrate different levels of leadership and how the demands of collaboration push us to more pluralistic and eventually collectivist understandings of leadership. In practice these types of leadership co-exist, interact with each other and the distinction between them is fuzzy.

Organisational Learning

Overview

Organisational learning can be defined as the capacity for an organisation to improve performance based on experience. A defining debate in the development of the field of organisational learning concerns the unit or level of analysis. This debate concerns whether organisational learning is simply the sum of what individuals within organisations learn, or whether there was something more to it (Eastby-Smith 2000). While some scholars resist what they characterise as the attribution of human characteristics such as thought and learning to inanimate objects such as organisations, others suggest it would be a mistake to argue organisational learning is nothing more than the cumulative results of their members' learning. The latter argue that members can come and go, and leadership can change, while organisations preserve certain behaviours, mental maps, norms and values over time. Eastby-Smith (2000) describes how this initial debate has subsided. There is an acceptance of various levels of analysis, that it is meaningful and useful to talk of learning at an individual and organisational level, and indeed the levels of analysis have been extended to include group level learning and learning between organisations and communities (see Gnyawali 1999, Lucas and Ogilvie 1999 in Eastby-Smith 2000).

A further distinction is sometimes made between **organisational learning** and the **learning organisation**. Organisational learning can be traced back to Cyert and March (1963), while the concept of the learning organisation was popularised by Senge's (1990) influential work The Fifth Discipline. While organisational learning denotes a more general exploration of the process of learning within organisations, the learning organisation denotes a systems level entity with specific characteristics and capabilities. In practice, Eastby-Smith (2000) suggests this distinction has now fallen out of favour, because it was felt to create confusion when phenomena being discussed were essentially the same. Finally, Fenwick and Mcmillan (2005) identify a further distinction in the literature between a focus on outcomes (economic and management literatures) and process (psychological and organisational theory literatures).

Learning Types, Dialogue and Innovation

There is a recurring classification of learning utilising two categories based on the radicalism of the organisation's response. The first category involves routine, incremental learning or adaptation aimed at maximising efficiency. This is variously described as adaptive learning, instrumental learning, single loop learning or exploitation. The second category involves more radical change aimed at making the organisation more effective, including transformational change and revisions to the strategy, objectives or system of the organisation. This is variously described as double loop learning, high level learning, generative learning, and exploration learning in various theoretical accounts. Huber (1991 in Eastby-smith et al 2000) suggests that in practice the distinction between single and double

loop learning is more blurred than the literature suggests, and the terms are most useful as shorthand for radical or incremental change. Arguably the learning organisation literature pays greater attention to the virtues of double loop learning, while more contemporary interest in the ambidextrous organisation have emphasised both the tensions between these types of learning and the capacity for organisations to perform both.

Author	Categories of Learning	
Argyris and Schon (1978)	Single loop	Double loop
Fiol and Lyles (1985)	Low level	High level
Senge (1990)	Adaptive	Generative
March (1991)	Exploitation	Exploration

Finally, it may be helpful at this stage to introduce the concept of innovation in the organisational learning literature. Aagaard (2011) makes a distinction between incremental innovation and radical innovation. Incremental innovation describes continuous improvement toward streamlining production and improving efficiency. Radical innovations are described as a breakthrough departing from well-known processes or habits. The individual and organisational competencies that support radical innovation are thought to be very different from those supporting incremental innovation Elsewhere in the literature, innovation is associated far more strongly with double loop learning (Eastby-Smith et al 2000) and discussed in contrast to exploitation or incremental learning. The notion of innovation features strongly in the organisational learning literature although the term is not always deployed consistently.

Learning Organisations, the Public Sector and Collaboration

The literature on organisational learning and learning organisations has primarily developed through research into the private sector. There is some debate over the ease with which these concepts can be translated to public sector settings, with some research suggesting there is a danger that the distinction between public and private sector can be overdrawn (Bozeman 1987 in Gilson et al 2009). There have nevertheless been efforts to make that transition both in practice and in research. In 1999 a government white paper on Modernising Government proposed that “the public service must become a learning organisation” (1999:56 in Gilson et al 2009), though it is pointed out that the public service cannot be realistically understood as a single organisation. In research, the application of organisational learning concepts to the public sector is well established (see appendix 3 for a selection of examples focusing on the UK context).

Eastby-Smith (2000) describes a shift in perceptions of the organisation as a unit of inquiry. It is argued that it is becoming more difficult to think of organisations as stable entities with defined boundaries. The nature of organisations, the context in which they operate, and the challenges that they must deal with have shifted towards more interdependent and networked forms. In this sense, for organisational learning to remain useful it must make sense of the nature of learning in collaborative contexts and the work necessary for sustaining collaboration. Eastby-Smith suggests this includes questioning how learning and coordination can be achieved in the presence of incoherent practices and thought systems, and how opportunities for innovation and change emerge in the course of this effort.

Blackler and McDonald (2000) provide an account of collective learning in this context that draws on the notion of boundary crossing and sense reconstitution. Oswick et al (in Eastby-Smith 2000) advocate authentic dialogue as a means to organisational learning "because it creates rather than suppresses plurivocal insights". In this context, Coopey and Burgoyne attempt to rehabilitate the notion of politics in organisational learning, suggesting that politics has been wrongly regarded negatively as a dysfunction within organisations rather than as a fundamental aspect and condition of learning at both the intra- and interorganisational level (Coopey and Burgoyne in Esterby-Smith et al 2009). Esterby-Smith et al (2009) argue that these developments, suggest a welcome shift by combining an explicit approach to political dynamics, a positive approach to democratic dialectic practices and open pluralistic points. They conclude:

> "Maybe the times in which the organisational learning debate, with its consensual and conflict free flavour could be accused of being a cover up for non-developmental and at times authoritarian management regimes are finally behind us. The time is ripe to start addressing learning and knowing in the light of inherent conflicts between shareholders goals, economic pressure, institutionalised professional interests and political agendas."

In these developments we can observe, that rather than organisational learning being translated into a political or public sector context, the research agenda of organisational learning arrives at familiar theoretical territory to the collaborative governance literature.

The empirical applications of organisational learning reviewed for this research are presented in Appendix 3.

Summary of Findings

What do organisations need to do or be to be effective?

The literature offers a multitude of ways to talk about what organisations need in order to be effective. The most common themes across the literature emphasise a shared vision, openness, systemic thinking, teamwork, integration of knowledge and leadership and

managerial commitment to learning. The literature suggests that the role of leaders is critical in the development of organisational learning (Sinkula et al 1997, Goh and Richards 1997, Garvin et al 2008). This is characterised as a facilitative form of leadership (Slate and Narver 1995), with a stewardship role in clarifying mission, vision and values, specifying strategies and structures. The leader also has a role in creating an atmosphere of openness and psychological safety, and actively encouraging knowledge sharing, learning through mistakes and continuous team learning (MacNeil 2001, Franco and Almeida 2011).

Other scholars draw attention to the culture of the organisation and external pressures on the organisation that might inhibit learning. They argue that cultures should seek to embrace "good waste" as a route to learning and innovation. Potts (2009) argues that learning and innovation is inherently wasteful as good policies are not known in advance. Public agencies may be under pressure or have a culture that is risk averse, inhibits learning, and creates a false efficiency that fails to address adaptive challenges. In this sense a good learning organisation needs to focus on the possibility and prospect of successful experiments rather than the minimisation of risk, such that learning and innovation become routine rather than exceptional or forced in times of crisis.

What context is needed for them to be effective?

In order to understand the context required for organisations to be effective as learning organisations, it is perhaps helpful to separate the sources of learning, the factors contributing to the capacity to learn, and what the literature suggests is needed for organisations to learn.

Sources of learning include:

- Internal sources such as the knowledge, skills and experiences of staff
- Experience at an organisational or individual level within the organisation
- Local networks and collaborative partners
- Wider external sources including private sector experience, overseas examples, experience and knowledge in other public sector agencies
- External innovations and developments in expectations including the introduction of new technologies (such as e-government approaches), the generalisation of standards and expectations from the corporate sector to apply to what citizens and businesses expect of the government, developments in outsourcing and partnering (Fenwick and McMillan 2005, Gilson et al 2009).

The literature highlights the following factors that inhibit learning and trap organisations into incremental patterns of single loop learning, rather than realising the potential of these sources. Some of the common barriers identified include:

- Risk averse attitude to personal mastery
- Difficulty in maintaining useful mental models at a time of rapid change
- Role of line managers in "blocking" the search for a shared vision
- Lack of support in building teams
- Cultural problems in the organisation including a culture of "not telling the truth" and "boys' power games", a culture of fear, blame and an absence of trust
- Common resistance to change amongst public organisations
- A modest capacity to alter behaviour and organisational structures
- A loss of learning continuities because of election cycles and government successions
- Learning tends to be done by trial and error, yet government departments are often held harshly to account over errors
- Governments need to be seen by the public as success and this often skews official proclamations in favour of success despite the actual results.

The literature has described potential sources for change both within the public organisation and changes to the wider context as routes to overcoming these barriers. Gilson et al (2009) argues that human resource management systems and practices have the most pervasive internal influence on organisational learning. They suggest challenges experienced may be overcome through broadening recruitment, targeting recruitment to the needs of individual organisations, and revitalising the skills development agenda.

Finally, Gilson et al (2009) argue that the most pervasive influence on learning in public agencies is the wider political system. High levels of scrutiny and little tolerance for inefficiency inhibit organisational learning. If these barriers are to be overcome, it is argued that this is through strengthening and widening access to the public discourse and deliberation.

How can this effectiveness be measured/evaluated? How do we know it's a good thing?

While it is helpful to consider how organisations overcome the barriers to organisational learning, there is a more fundamental question concerning the value of organisational learning and understanding where it is needed, and how its outcomes can be measured. The literature is vulnerable to assuming that all learning is good, which may risk becoming an unhelpful tautologous claim that neglects the sense in which poor practice or practice ill-suited to the new context might be transmitted rather than good practice. Furthermore, there is a risk that in practice untested assumptions may take hold about where organisations should be learning which may be counterproductive (Fenwick and McMillan 2005). For example, an organisation may pursue networks and alliances that hinder rather than assist the hard work of providing services the public need.

In this sense how we measure and evaluate organisational learning is crucial, yet the literature suggests it is also very difficult. Firstly, the literature suggests that the measurement and scrutiny of public agencies often has a detrimental impact on learning. When seeking to measure the learning process, there is a need to do so in a way that doesn't reinforce the conditions that inhibit learning by creating a culture of blame and risk aversion or being overly centralised or prescriptive. It is increasingly accepted that the current performance management approaches lead to 'gaming' and other perverse outcomes (Lowe and Wilson 2017).

A further consideration is the sense in which it may not be immediately clear whether learning has taken place and whether it is useful. Therefore, the measurement process needs to recognise that learning takes time. In addition it must navigate the complexities presented by multiple potential indicators of "good performance or learning" and the ambiguities of tracking these measurements to features of the individual, leadership, organisation or network properties. The complex challenges of public service mean that performance is a judgement of how the collective leadership in a place work together and whether they have and use the capacity to learn.

The literature has highlighted limitations in current approaches to measuring learning in the public sector, perhaps a fundamental issue that requires attention moving forward. There is a risk that circular reasoning in the operationalisation of organisational learning can diminish the explanatory value of empirical applications. This is illustrated by describing the temptation of studies to suggest that the secret to being good is to be good in sub-aspect X, then sub-aspect Y and then sub-aspect Z. There is therefore a need to consider the relationship between these goods, and elements of an organisation or leadership that is both easily identifiable and not already tied to an evaluative description.

To get us closer to an understanding of how organisational learning can be measured and its lessons applied, there is a need to ground evaluation in tangible, measurable variables that could be observed in relation to an organisation's performance or learning outcomes. The work of Jean Hartley and associates have focused on ways in which public organisation initiatives can incorporate learning in their design and evaluation processes (see Rashman and Hartley 2002, Hartley and Allison 2002, also Vince and Broussine 2000, Ball et al 2002, Greve 2003 in Gilson et al 2009). On isolating and understanding the role of leadership in organisational learning, the review suggests empirical testing is rare, and rarer still in the context of public sector collaborative processes, though there are notable exceptions (see Vassalou 2001, Franco and Almeida 2011, Amitay et al 2005).

Case Studies

Case Study: Types of learning. Efforts to develop organisational learning in the NHS

Nutley and Davies' (2001) study argues that the NHS needs to move beyond single loop learning to foster skills in double loop learning and triple loop learning. They illustrate the types of learning in the context of the NHS as follows:

- **Single-loop (or adaptive) learning**: A hospital examines its care of obstetric patients. Through clinical audit, it finds various gaps between actual practice and established standards (derived from evidence-based guidelines). Meetings are held to discuss the guidelines, changes are made to working procedures, and reporting and feedback on practice are enhanced. These changes increase the proportion of patients receiving appropriate and timely care (that is, in compliance with the guidelines).
- **Double-loop (or generative) learning**: When the hospital examines its obstetric care, some patients are interviewed at length. From this it emerges that the issues that are bothering women have more to do with continuity of care, convenience of access, quality of information and the inter- personal aspects of the patient-professional interaction. In the light of this, obstetric care is dramatically reconfigured to a system of midwife-led teams in order to prioritise these issues. The standards as laid down in the evidence-based guidelines are not abandoned but are woven into a new pattern of interactions and values
- **Triple loop (or meta-learning):** The experience of refocusing obstetric services better to meet patient needs and expectations is not lost on the hospital. Through its structure and culture, the organisation encourages the transfer of these valuable lessons. The factors that assisted the reconfiguring (and those that impeded it) are analysed, described and communicated within the organisation. This is not done through formal written reports but through informal communications, temporary work placements, and the development of teams working across services. Thus, the obstetric service is able to share with other hospital services the lessons learned about learning to reconfigure.

Case Study: "Blame culture", risk avoidance and the emotional and relational dynamics of organising. The case of "Fairness Borough Council" (a hypothetical example, drawing on results from 146 local authorities in England and Wales).

Fairness Borough Council is very proud of its approach to organisational learning. It has a training department which has a very comprehensive performance appraisal process for its entire staff, supported by programmes of training, both formal and informal, delivered both by internal and external providers. The thinking behind this strategy is that if the local authority empowers individuals to learn, then it will have a workforce which is - as far as is possible - both responsive to the increasing pace of change and creative in its approach to

working practices. As a result of their experience within training events, several of the front line workers and junior managers have acted in more authoritative and autonomous ways. This has been much to the annoyance of some of their own line managers who, while being supportive of their individual learning, quietly resent having their views or decisions directly questioned or challenged. The front line workers and junior managers soon begin to feel as though they are either banging their heads against a wall, or worse, jeopardising their careers, and that for all the good ideas and intentions behind the authority's learning strategy, nothing is really going to change. Their experience of individual learning within the organisation has been positive, but they have become cynical about the council's claim to be a learning organisation. (Vince and Broussine 2000).

Case Study: Learning organisations and performance management. The case of schools in Wales

Kool and George (2020) describe evidence that suggests schools adopting the learning organisation concept have a higher responsiveness to their internal and external environment which helps them respond to challenges and adapt strategies where necessary. They also highlight the unintended consequences of performance management on collaboration between schools in Wales. Since 2008 student performance data in the subjects of English/Welsh, mathematics and science had become part of the annual system level monitoring of the Welsh Government. The data was used to categorise schools into "green", "yellow", "amber", and "red", which was made public. As a result, schools began to compete, undermining collaboration and contributing to a narrowing of the curriculum. Recognising these challenges, Wales is in the process of redefining its performance measurement arrangements as part of a new strategic management approach founded on organisational learning. Kool and George (2020) describe how the reforms seek to promote collective working, learning and empower schools to change and adapt routinely to new environments and circumstances.

Organisational Ambidexterity

Overview

The literature on organisational ambidexterity is heavily influenced by March (1991)'s distinction between exploration and exploitation. **Exploration** is characterised by variety, experimentation and novel combinations to generate innovation, learning and revolutionary change. **Exploitation** is characterised by refinement, efficiency, convergent thinking and continuous improvement (Palm and Lilja 2017).

The categories of exploration and exploitation are generally described as antagonistic if not mutually exclusive systems, based on contradictory values and goals, such as efficiency for exploitation and innovation for exploration. These categories also compete for scarce resources. Nevertheless, organisations that are excessively orientated to one of the two

systems are described as encountering difficulties. For example, organisations dedicated to exploitation are likely to find it difficult to acquire new knowledge and sustain long term competitiveness, while organisations orientated towards exploration may suffer the costs of experimentation without gaining its benefits (Cannaerts et al 2016).

Theories about an organisation's ability to overcome these tensions and successfully synthesise these competing tendencies use the term **organisational ambidexterity**. Tushman and O'Reilly (1996) define an ambidextrous organisation as one that is able to implement both incremental and revolutionary change, that is able to be both exploitative and exploratory. Smith and Tushman (2005 in Palm and Lilja 2017) describe ambidextrous organisations as those that can both explore and exploit and Lubatkin et al (2006) define them as capable of exploiting existing competencies as well as exploring new opportunities with equal dexterity. Aagaard (2011) concludes most researchers define ambidexterity as the simultaneous pursuit of exploration and exploitation (see March 1991, Gieske, van Buuren and Bekkers 2016, Duncan 1976, Raisch et al 2009).

How to achieve organisational ambidexterity

There are different theories on how the balance between exploration and exploitation can be achieved. A distinction is made between sequential and simultaneous ambidexterity. **Sequential ambidexterity** describes a model in which organisations alternate between periods of exploitation and periods of exploration (see O'Reilly and Tushman 2013, Chen and Kannan-Narasimhan 2015 in Boukamel and Emery 2017). It is contested whether this constitutes organisational ambidexterity and is sometimes referred to instead as temporal ambidexterity or punctuated equilibrium.

Simultaneous ambidexterity can take two different forms: structural and contextual ambidexterity. **Structural ambidexterity** (sometimes called separated, differentiated or architectural ambidexterity) is a model in which exploitation and exploration are separated into different structures, units or sub-units within an organisation. These units exist within their own process. Structure and cultures are then managed and coordinated by a higher organisational level to enable consistency. It is argued that this model facilitates specialisation leading to increased efficiency in both activities, and safeguards that allow for cross fertilisation among units while preventing cross contamination (Boukamel and Emery 2017). There are also criticisms of this model. The success of structural ambidexterity depends on the integration of the different structures and when this fails, silos can emerge that present barriers to information sharing and innovation (Palm and Lilja 2017).

Contextual ambidexterity (sometimes called integrated ambidexterity) is a model in which individuals contribute to exploration and exploitation in the context of their day to day work. It is this form of organisational ambidexterity that has attracted the most attention in the literature reviewed. This requires the organisation to provide members with a supportive work context. Gibson and Birkinshaw (2004 in Boukamel and Emery 2017)

provide an influential account of the necessary contextual conditions which include discipline, stretch, support and trust.[13] The literature tends to treat contextual ambidexterity as the route to effective organisational ambidexterity. Yet critics of this approach argue that integrative contexts are constrained by individuals taking on exploitative and explorative tasks (see Bushe and Shani 1991, Inkoen and Tsang 2005, March 1991 in Raisch et al 2009). They therefore rely on the same basic experiences, values and capabilities to carry out both tasks which makes exploring fundamentally different knowledge bases difficult.

Raisch et al (2009) argue for some **combination of structural and contextual ambidexterity**. They refer to Adler et al's (1999) suggestion for complementing integrated contexts with "tactical" differentiation. They describe how production workers switch between the two tasks supported by "parallel" organisational structures. They note that such a combination presents a paradox that is difficult to resolve, where it is unclear how the tensions should be managed. They also introduce the idea that the right degree of differentiation and integration is dependent on the relative importance of exploitative and exploration activities, which will vary across initiatives, thus there may be a need for creating a dynamic capability for creating and sustaining organisational ambidexterity. Aagaard (2011) suggest that the problem for public administration is that New Public Management does not significantly promote such a mix.

In a context where organisations lean towards exploitation, Boukamel and Emery (2017) describes the importance of leadership with insight about the need for exploration. On this view, the organisation needs a management team that recognises and can communicate the need for exploration. This entails creating a sense of trust and confidence among staff. This is achieved by giving positive feedback to those pursuing exploration and being present in the exploratory process.

The empirical applications of organisational ambidexterity reviewed for this research are presented in Appendix 4.

Summary of Findings

What do organisations need to do or be to be effective?

[13] **Discipline** induces members to voluntarily strive to meet all expectations generated by their explicit or implicit commitments. Establishment of clear standards of performance and behaviour, and consistency in the application of sanctions contribute to the establishment of discipline. **Stretch** induces members to voluntarily strive for more, rather than less, ambitious objectives. Establishment of a shared ambition, the development of a collective identity, contribute to the establishment of stretch. **Support** induces members to lend assistance and countenance to others. Mechanisms that allow actors to access the resources available to other actors, freedom of initiative at lower levels, contribute to the establishment of support. Finally, **trust** is an attribute of context that induces members to rely on the commitments of each other. Fairness and equity in a business unit's decision processes, involvement of individuals in decisions and activities affecting them, contribute to the establishment of trust. (Gibson and Birkinshaw 2004 in Boukamel and Emery 2017)

Organisational ambidexterity is an intuitively compelling way of thinking about the situation public agencies find themselves in balancing efficiency and effectiveness, as it locates the tension inherent in the demands to manage both the exploitative function of efficiently executing the services and routine tasks it is required to perform, while also exploring how to be more effective.

At the abstract level, there is disagreement over how to balance exploration and exploitation. A distinction is made between the contested notion of sequential ambidexterity, and the preferred routes of structural ambidexterity and contextual ambidexterity. The literature suggests that the relative importance of exploitative and exploration activities varies across initiatives, thus there may be a need for creating a dynamic capability for creating and sustaining organisational ambidexterity. The literature suggests that a tactical combination of structural and contextual ambidexterity, which is adapted to the balance of exploration/exploitation demands of a given case, may be the ideal approach.

In practice, the literature suggests the debate is somewhat more simple. Palm and Lilja's (2017) interviews with managers and leaders suggest that overwhelmingly the challenge in achieving organisational ambidexterity for public agencies involves working on becoming more explorative. They derive nine enabling factors for this:

- *Organise for good understanding of user needs and situation*. It is important that the management team ensures that the exploratory and exploitative processes are based on a user perspective. This creates legitimacy and enables high quality in both explorative and exploitative processes.
- *A management team that realises and can communicate the need for exploration*. It is important to have a management team that realises the need for organisational ambidexterity. The management team is seen as the supportive factor underpinning other positive contributors so they can be concretised.
- *Dialogue*. An important enabler is the ability to stimulate a good dialogue. In the internal management process, it is important to have a close, well-planned and regular dialogue between those involved in exploration and those involved in exploitation processes. All different professions in the organisation need to be involved in the dialogue and an important thematic focus therein seems to be about how the outcome of exploration processes can be implemented in ordinary work processes.
- *Ambassadors*. Ambassadors of novel products, processes or services have been pointed out as very important enablers in the process of taking innovative ideas from idea generation to implementation. These ambassadors, as enabling factors, are closely related to the above-mentioned enabler, dialogue. The ambassadors are

individuals who promote exploratory elements and support incorporation of those elements into existing work processes.

- *A culture that allows mistakes*. Management must allow employees to take risks and possibly make mistakes. The exploration process needs a forgiving culture. This enabling factor is closely related to the dialogue factor. It is through dialogue that the management can develop a tolerant culture in which employees feel empowered and not afraid to make mistakes.
- *Budget for exploration and exploitation*. There is a need for a specific budget for exploratory and exploitative activities.
- *A system view*. An enabling factor is that the employees take a holistic approach with an ample understanding of a system approach. Further dialogue is, in this case, described as essential for success in achieving a holistic approach and a system view.
- *Focus on implementing innovations*. To develop the explorative part of the organisational ambidexterity, there is a particular need for moving on from the idea and actually implementing innovations. Too much focus is often put on idea generation and too little on implementation.
- *Incentives for both exploration and exploitation*. Objectives and measurement of results for both exploration and exploitation are seen as an enabling factor for achieving organisational ambidexterity. When the organisation formulates objectives and evaluates, explorative as well as exploitative activities can both be considered as equally important. (Palm and Lilja 2017).

The literature closely associates exploration with the process of innovation. Boukamel and Emery (2017) outline five types of intertwined drivers considered to be essential for public agencies to become ambidextrous and develop innovation capabilities. These are: organisational slack, openness to bottom up initiatives, more flexible work arrangements, greater involvement by different actors, and an ability to overcome inter-organisational borders.

Organisational slack refers to organisational flexibility towards the use of resources. Innovation is stimulated when professionals grope towards loosely defined goals, rather than when they work on carefully planned innovation initiatives (See Borins 2001, Adkins 2005). Boukemal and Emery (2017) note that the New Public Management period sought to eliminate organisational slack.

New Public Management was described as discouraging knowledge sharing across organisations and hindered some types of development (See Arundel et al 2015 in Boukemal and Emery 2017). Furthermore, the top down planning approach of New Public Management was described as producing constricted in-house innovations that failed to tap into experience, resources, knowledge and ideas of relevant and affected actors. Thus, the

innovation capabilities of public sector organisations are partly a result of their **openness to bottom up initiatives**.

Flexible work arrangements have been found to empower public servants by stimulating innovative work behaviours. Moll and De Leeds (2017) provide an account of "New Ways of Working"[14] and the impact this has on promoting innovative behaviours such as idea emergence and opportunity exploration.

The development of innovation capabilities relies on the ability to involve a **large, complex and multi-layered network of internal and external actors**, and sometimes also other organisations, in its innovation projects (See Armbrustera et al 2008, Camisón and Villar-López, 2014).

Innovation capability is partly based on the public sector organisation's ability to engage in **interorganisational cooperation** and break out of administrative silos. It is argued that this is hard to achieve because of institutional boundaries (and related practices, sub-cultures) that can be extremely strong (see Michaux 2010, also Head and Alford 2013, Kinder 2003).

Across these innovation capabilities the role of collaboration and the opening up of processes is emphasised as the route to realising the potential of internal and external sources of innovation.

What context is needed for them to be effective?

In the context of organisational ambidexterity, effectiveness involves a balance of exploration and exploitation. There is disagreement over how this should be approached, and indeed both the approach and the precise balance between these elements is understood to be context dependent (Boukamel and Emery 2017). Although the literature offers a more general account of the conditions of organisational ambidexterity, it is important to note that the literature does not provide a conclusive resolution to the approach, and there is limited information on how to resolve the context specific judgements. Nevertheless, the literature outlines the following conditions under which organisational ambidexterity is likely to be successful (Bryson et al 2011, Palm and Lilja 2017, O'Reilly and Tushman 2007):

- The presence of a compelling strategic intent that justifies the importance of both exploitation and exploration increases the likelihood of ambidexterity

[14] New Ways of Working is an umbrella term that comprises the four core practices teleworking, flexible workspaces, flexible working hours and ICT support. Moll (2015) provides a study of the relationship between New Ways of Working and innovation and specifically innovative work behaviours.

- Effective relations with oversight authorities (legislative, executive and judicial), which includes that senior management teams must be given both the support and leeway to pursue ambidexterity
- Responsive autonomy in relation to political oversight and influence
- Strong organisational culture linked to mission: the articulation of a common vision and values that provide for a common identity increase the likelihood of ambidexterity
- Strong planning and decision making systems
- A clear consensus among the senior team about the unit's strategy, relentless communication of this strategy and a common-fate incentive system increase the likelihood of ambidexterity
- Ambidextrous organisational architecture: separate aligned organisational architectures (business models, competencies, incentives, metrics, and cultures) for explore and exploit subunits and targeted integration increase the likelihood of successful ambidexterity
- Effective strategic leadership: senior leadership that tolerates the contradictions of multiple alignments and is able to resolve the tensions that ensue increases the likelihood of ambidexterity
- Effective utilisation of technology, which includes that sustaining and disruptive technologies will be managed effectively
- Effective relations with partners and suppliers

How can this effectiveness be measured/evaluated? How do we know it's a good thing?

In some respects, the organisational ambidexterity literature is advocating something that is by definition a good thing, a productive balance between exploration and exploitation. Nevertheless, Simsek (2009 in Palm and Lilja 2017) warns that "organisational ambidexterity remains an under-theorised, under-conceptualised and, therefore, poorly understood phenomenon". Gupta et al (2006 in Palm and Lilja 2017) suggests that "although near consensus exists on the need for balance of exploration and exploitation, there is considerably less clarity on how this balance can be achieved."

Perhaps the first stage of overcoming this confusion requires establishing the ontological status of the concepts it deploys, and therefore what it can or should be doing methodologically. In what ways can ambidexterity, exploitation, and exploration, and the balance between them be identified and measured. There appears to be a risk that these concepts can only be understood retrospectively. For example, observable evidence might suggest an organisation has a sufficient balance between exploration and exploitation until a problem or crisis reveals that it doesn't.

The literature suggests that different organisations, initiatives and projects will require different levels of exploration and exploitation. This implies that organisational ambidexterity is a dynamic state. That the conditions outlined in enabling organisational ambidexterity must perform a dynamic stabilising role, adapting to different circumstances to restore an optimal balance between exploration and exploitation. The recommendations that this review have identified appear reasonable, for example, a culture that allows mistakes, or a budget for exploration and exploitation. However, on the evidence we have seen, it may be there is an explanatory gap. For example, while a culture that allows mistakes might help us to be more exploratory and innovative, it doesn't necessarily help understand when exploration is needed and act accordingly. More information is therefore needed to understand what mechanisms allow organisations to get the balance right.

There is a general consensus in the literature that the mechanisms of organisational ambidexterity in the public sector are under researched (Cannaerts et al 2016, Palm and Lilja 2017, Deserti and Rizzo 2014, Smith and Umans 2015). This is in part attributable to the fact that attention on the issue in this context is relatively recent. Study of organisational ambidexterity in the private sector has developed over a longer period of time, and our review found consistent findings that organisational ambidexterity improves performance.

However, there were concerns about the evidence base. Our review of the empirical research in the public sector presents more variables in terms of methodological approach (the most common are case studies and interviews), and the independent and dependent variables measured (with interest in the relationship between innovation and organisational ambidexterity a common theme). There is some reliance in this literature on retrospective evaluations. This is not necessarily negative, indeed it demonstrates that organisational ambidexterity can be an illuminating metaphor for talking about the challenges public agencies face and learning how things could be better. While organisational ambidexterity is a compelling articulation of the challenges public agencies face and the tensions involved in overcoming these challenges, we would suggest that to realise the potential of this approach there would need to be further research that focused on how the balance between exploration and exploitation can be diagnosed prospectively.

Case Studies

Case Study: Exploration and exploitation. The case of child welfare reform in Hawaii

Exploration: In 1997, the Department of Human Services in Hawaii launched a state wide family group-decision making initiative called "ohana conferencing". This sought out new child welfare practice models across the globe that stressed new norms of respecting and including cultural diversity in its decision making with families. It required taking a large risk, (being the first state-wide initiative), flexibility, discovery and experimentation. This also required a shift in core values from professional/expert focus to collaboration and shared decision making with multiple agency partners and family empowerment. This required an

extensive amount of organisational learning to succeed, however it was considered so successful it has now become the preferred child welfare practice model across the U.S (see Choi and Chandler 2015 and Pennell et al 2011).

Exploitation: Wrap Hawaii was piloted in 2012 and involved building on the existing ohana conferencing model, refining and extending the skills of current staff, selecting and improving on what had been learned through the previous process and developed a new memorandum of understanding for interagency collaboration to assist in the implementation (Choi and Chandler 2015).

Case Study: Dialogue and opening up decision making. "Organisation 2" in a study of regional public organisations in Sweden responsible for health care and support for regional growth.

Respondents in Organisation 2 emphasise the importance of dialogue. Above all, the importance of planned and well-considered communication for explaining and dealing with questions about exploration and how explorative ideas shall be implemented in ordinary processes. In this dialogue, it is important to represent all the organisation's professions in the exploration as well as exploitation process. Comments from managers included:

> "You must always have the doctors on board as a professional body. It is not possible to avoid this group. As long as exploration doesn't affect this profession's way of working, it's okay."
>
> "We gather together those who will be affected by the newly created processes and we then talk about what the change entails. This allows us to resolve many issues."
>
> "For many, there is a reluctance to introduce new processes in relation to the degree of novelty, i.e. the more innovative a process is, the greater the resistance. This can only be resolved by time for dialogue." (Palm and Lilja 2017)

Case Study: Developing a system view. "Organisation 1" in a study of regional public organisations in Sweden responsible for health care and support for regional growth.

Interviews with twelve managers from this organisation who had experience of maintaining both explorative and exploitative approaches emphasised that the organisation needed to develop a system view. They elaborated by explaining:

> "What people do in one unit affects other units. The organisation's staff need to understand how change affects both their own unit and what consequences the change will have on the other parts of the

> organisation. The system view is so important that it has become a factor for the employee's individual salary level, in the sense that employees considered to have a high level of system understanding can earn better salaries than those considered not to have that understanding." (Palm and Lilja 7)

Managers observations included:

> "We built a culture around meetings. We could not allow ourselves to get stuck in silos. We ensured that people from different departments took joint responsibility for solving problems together."

> "We must have a holistic approach that transcends the operational boundaries of the organisation and establish work groups for different issues."

> "You have to talk about system competency. The co-workers must understand that this is important. Everyone has to understand how their jigsaw pieces fit in with other people's. It is difficult, however. You can understand it in theory but when we are faced with a difficult issue, it is very hard to apply. We still go wrong. We work in such a complex organisation."

Conclusion and Recommendations

The review finds that effective collaboration requires careful attention to a range of factors. Amongst these organisations and leadership play a vital role, yet their effectiveness, and what is required of them, is heavily contingent upon antecedent conditions and contextual factors. The brief focuses our attention on the role of organisations in collaboration across the system. The literature most directly concerned with how public agencies collaborate across the system, collaborative governance, tends to orientate discussion around collaboration and reduce the role of the organisation to that of a hinderance, a source of objectives, culture and ethics that inhibit effective collaboration.

Yet the evidence suggests a need to imagine a more dynamic role for organisations. In order to collaborate effectively, organisations must overcome a number of thresholds. To achieve this, organisations must become a problem oriented organisation or a learning organisation (Ansell 2011). This sets up a tension with existing demands on public organisations and the roles they are expected to perform efficiently. Organisations must find a balance between exploration and exploitation to manage this tension and take on the characteristics of a learning organisation in a sustainable way. In this sense, for an organisation to collaborate

effectively, or indeed to innovate and solve problems effectively, it must develop the capacity to become an ambidextrous learning organisation.

The evidence from the literature urges us to recognise that structures such as organisations and leadership operate within a context and many other elements and factors also have a decisive impact on collaboration. These include procedural factors (for example, the role of dialogue and intermediate outcomes) as well as contextual factors (for example, power asymmetries). How these factors interact, the demands they place on organisations or leaders, and the relative importance of different leadership roles or organisational characteristics can only be understood on a case by case basis, through careful attention to the specific circumstances of collaboration. We hope that this review has provided a grounding with which to interpret these situations and navigate the complex practice of organisational collaboration across the system.

Recommendations for Further Exploration

The literature review utilised a range of methods to try to ensure it captured different ways of talking about the issue of organisational effectiveness in the context of collaboration across academic fields and disciplines. This included applying six searches across five academic databases collecting 5,315 results. These results were then filtered to 329 papers and a smaller number of papers for deep dive review. The method of snowball sampling was applied to these papers to get a richer understanding of the scope of the theoretical and empirical literature. We are confident that this process has enabled us to surface the key literatures concerned with organisational collaboration across the system. However, we should note a number of caveats about the nature of this research and constraints on the review.

The practice of public agencies collaborating across the system describes a huge, complex phenomenon. The literature does not comfortably trace the issue of how public organisations collaborate across the system, instead we can observe clusters of research that offer alternative points of emphasis on the issue or reformulate the question. The literatures we have explored have been characterised by disorder; a proliferation of theoretical distinctions and terminology, studied and operationalised in a variety of ways. A further feature of the literature is that it is multi-disciplinary. Many scholars draw on approaches, models or frameworks from a diverse range of disciplines including management, psychology, economics, and political science. In this sense there is no clear boundary to the literature, as it branches out into different disciplines and possibilities. In adopting a perspective wide enough to capture these diverse literatures we are more limited in our capacity to pursue specific paths or contexts in their entirety.

The review focused on prominent areas of debate: collaborative governance, organisational learning and organisational ambidexterity. Many scholars have spent their careers exploring these fields and the review could have focused on any one of these areas for a deep dive

review given the richness of these literatures and abundance of insights available. We argue that the decision to explore these three areas has nevertheless been very productive in revealing connections that enhance our understanding of organisational effectiveness. We believe there would be benefits from further exploration of these fields, and in particular the relationships between them. The review suggests a number of scholars who have been influential in this area, and who provide very pertinent and compelling research on the relationship between leadership and organisations in collaboration across the system, notably Christopher Ansell (see Ansell and Gash 2008, Ansell 2006, Ansell and Gash 2012), Kathryn Quick (2017), Siv Vangen, Chris Huxham (Vangen and Huxham 2003, 2012), Chris Silvia (2011), Jean Hartley (Hartley and Allison 2002) and their associates.

In further exploration of these literatures and the issue of organisational effectiveness, collaboration and leadership we offer four further themes emerging from the literature. The first two themes emphasise commonality across the literatures, principally the threads of democratisation and innovation. The second two themes highlight difference and the importance of context. In addition to further exploration of the questions emerging directly from these literatures, we would also recommend exploring the role that these four themes play across the literature.

The theme of democratisation of organisations and deliberative democratic theory emerged as a latent theme across the literature. While there were a few exceptions, it was rare for the literatures to directly reference the field of deliberative democratic theory. Nevertheless, across the literature on collaborative governance, organisational learning and organisational ambidexterity there were consistent themes pertinent to this field. These included a focus on discourse, deliberation and face to face dialogue; the practice of facilitation and managing processes to ensure inclusiveness; an opening up or democratisation of organisations and collaborative processes, including empowering weaker stakeholders and enabling bottom-up initiatives were consistently advocated as a means to fostering collaboration, organisational learning, and ambidexterity.

It should be noted there are important differences when considering the implications of deliberative democratic theory for these literatures. At the theoretical level, deliberative democratic theory emerges from the disciplines of politics and philosophy, while the literatures we have explored have primarily emerged from public management and organisational theory. While this is not a necessary consequence of the theory, in practice deliberative democracy has tended to focus on relatively radical forms of citizen participation such as mini-publics (citizen juries and citizen assemblies) or questions of the public sphere or the relationship between citizens, discourse and decision making.

In contrast the literature we have focused on has typically concerned more formal collaborative arrangements or relationships between more clearly defined political groups or agents, such as public-private partnerships. This is not to say that there are not

connections in the literature, notably the shared influence of the work of Fung on participation. We would like however to draw attention to the latent potential of deliberative theory and associated research to inform conversations about procedure, power and practice in relation to the themes highlighted in this review. Deliberative democratic theory equips us with a way of understanding the procedural norms of collaboration (Habermas 1991), dialogue and democratisation. There is a rich seam of empirical literature exploring how we can test and evaluate these processes (Neblo 2007, Hangartner et al 2007). This would provide us with a route to evaluating some of the questions raised in the literature reviewed. For example, if we are interested in understanding what good dialogue would look like and how we might test it, or how inclusive the collaborative process was. It provides us with a language to locate the role of power in dialogue, networks and organisations, and tools with which to analyse and evaluate this issue in practice. Finally, the field provides potential implications for designing dialogue processes and training in facilitation and mediation, with a wealth of research on best practice in deliberative processes. We would suggest that there is potential to learn from the experience and approaches in this rich field, to translate these insights into the collaborative public administration setting and avoid a duplication of efforts (Boswell 2018).

The second, more explicit theme emerging across all literatures was the role of innovation. Collaborative governance, organisational learning and organisational ambidexterity all direct us towards the issue of innovation, whereby the challenge of collaborating, learning or finding a balance between exploitation and exploration often slips into a discussion of how public agencies can become more innovative. It felt beyond the scope of the focus we had established through the deep dive to engage in depth with the issue of innovation. The task is complicated by the fact that while the literatures gravitated towards the issue of innovation, there was clearly a diversity of ways in which innovation was understood and a variety of methods of delivering innovation explored. Scholars have explored innovation in the context of design thinking, “new ways of working”, collaborative platforms and inclusive organisation. It should be noted that on a number of occasions the link between deliberation and democratisation and innovation is also made explicit. Palm and Lilja (2017) emphasise the importance of dialogue in organisational ambidexterity and argue that the reluctance to innovate can only be overcome over time through dialogue. Quick (2017) similarly talks about innovation being achieved through inclusive collaborative platforms.

While these themes suggest a degree of consistency across these literatures, it should be noted that these themes operate at a degree of abstraction, and a central message emerging from the literature emphasised the context specific nature of the challenges organisations and leaders face, and how understanding this requires us to depart from the abstract and attend to the specifics of each case. For example, one of the useful themes in the literature summarised here is the overarching challenges of leadership beyond the boundaries of the organisation and the way that demands ‘ambidexterity’ on the part of leaders and the organisations they lead. However, it is also clear that is not the whole story

and that there are different leadership dilemmas depending on the context in which a leader or leadership group working within a collaboration is faced with particularly in public service.

This overarching truth has implications for the role of both the organisations and the leaders involved. If we accept that organisational and leadership ambidexterity is a necessary part of shaping better facilitative leaders and thereby improved capacity for and delivery of collaboration, then the context and resources/competencies required to support leaders needs careful delineation. The support to recognise and be effective in these related but different is important. Based on this premise we propose the framework in Figure 1 below as a way of sorting out some of the potential ambiguity of leadership in collaborative contexts distinguishing between leadership contexts which are relatively bounded and predictable with known partners on the left hand side and leadership context where the range of partners is wider and domain of leadership more ambiguous and uncertain.

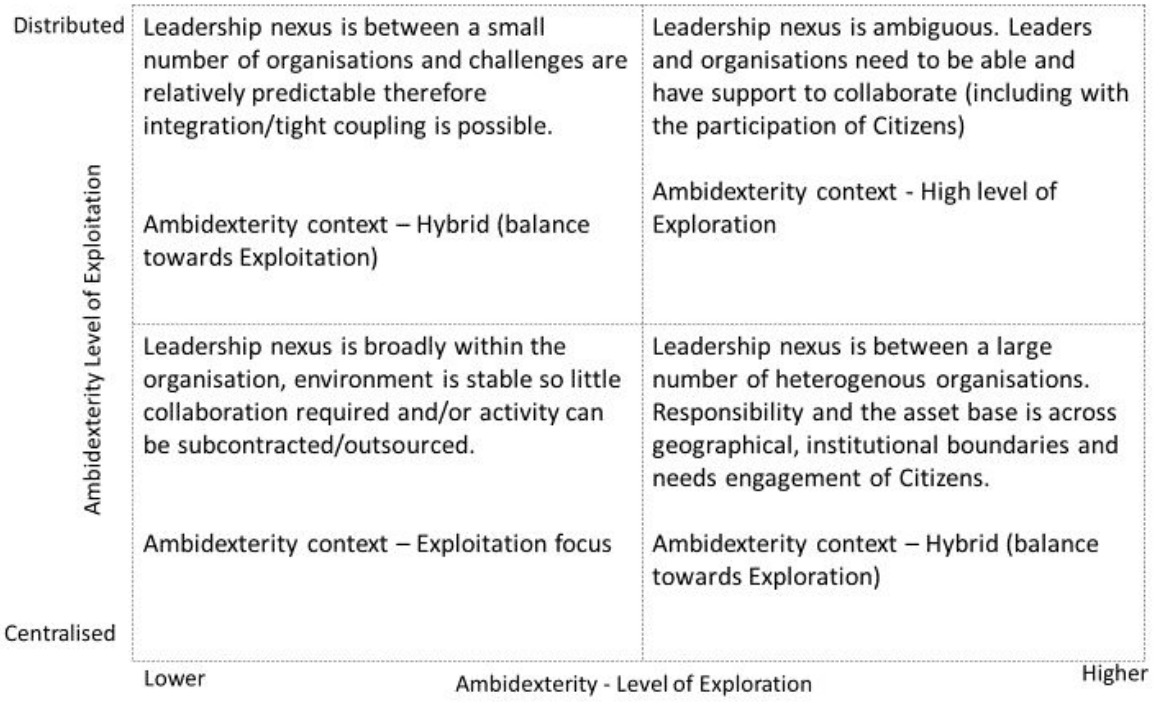

Figure 1: Framework for Identifying the Contexts of Ambidextrous Leadership and Organisational Collaboration

The framework shows how the notion of ambidexterity can be used to identify the different frames to leadership in collaborative contexts which in turn has implications for the approach to learning and performance management. On the left-hand quadrants where the nexus is smaller, environment is more stable and predictable change tends to be incremental and therefore measurements can be used in an exploitation mode to learn and improve. In the right-hand quadrants where the leadership nexus is more widely distributed, the context more complex and uncertain the capacity to learn is based on

collaborative judgements where deciding what to do is emergent, participative, negotiated, and explorative. Performance in a given situation can only be judged in retrospect and prospectively as the capacity of leaders to be able to carry out these sorts of tasks collectively, innovate relationships and deliver the required organisational engagement with the situation at hand. Such a framework to be effective needs to be tested through the engagement with leaders in the NLC programme – used in an interactive way it could help leaders reflect on their experiences, recognise their mutual dilemmas and better identify the opportunities and means by which to collaborate.

From our review of the literature a high proportion of studies relate to the topics of the environment, health, digital, crisis and reform. The focus on the environment may be explained in part due to the prevalence of common pool resource issues and interdependence issues that may require organisations that have differing objectives and histories of antagonism to collaborate. The high proportion of health and mental health related studies reflects the high levels of interdependence of agencies in delivering services, and the challenges of overcoming complexity rather than conflict in collaboration (Schooley and Horan 2007). The prevalence of digital governance and e-government related research appears to reflect interest in innovations in information communication technology and trends in disciplines such as organisational learning and governance (Bovaird 2003, McLoughlin and Wilson, 2013). Finally, the prevalence of crisis and reform reflects the sense in which these situations are often perceived to be where collaboration and learning is most urgently needed, where the situation may be a reflection of failure in the system, and circumstances force change, learning and collaboration on organisations. (Christensen et al 2016, Jung et al 2019, Lester et al 2007)

In conclusion, the review undertaken provides a wide ranging overview of approaches to understanding organisational effectiveness in collaboration across the system. Its strength is in the breadth of the review and the connections and insights it was able to reveal within the areas of collaborative governance, organisational learning and organisational ambidexterity. It has also provided a grounding for further exploration of the implications of these fields, and the potential insights provided by exploring overarching themes in the literature concerning democratisation and deliberation and innovation, and routes to exploring the issue from the perspective of contextual settings.

Appendix 1: Search terms and results

Summary of findings by search term

Adaptive	
Number of abstracts reviewed	77
Summary of findings	● Adaptive has a number of associations in the literature; (1) a form of learning or change in organisational learning literature (adaptive change), (2) a form of governance literature concerned with environmental issues (adaptive governance), and finally (3) complex adaptive systems and complex adaptive leadership, in which leaders or organisations respond to challenges that are not easily resolved by existing routines or competencies and require engaging with uncertainties. ● The major literature that emerges from this search concerns organisational learning. ● Innovation appears closely linked to the notion of organisational learning (as well as organisational ambidexterity). ● Adaptive governance appeared as a common theme in the results. The literature shares some interesting themes with the brief; a concern with decentralised decision making structures, common pool resource situations requiring collaboration, and responsiveness to environmental change. The results produced by the review focused exclusively on issues relating to climate change and the environment, and was therefore considered too context specific.

Ethical

Number of abstracts reviewed	68
Summary of findings	● The issue of ethics was not a significant theme in the results. Trust forms an important part of the discourse on effective collaborations and management of networks. In this case however trust is seen as a means to an end (effective collaboration) rather than connecting this to wider normative considerations. Discussion of the decisions and actions of individuals or organisations within a network were understood in fairly positivist terms, whereby they were motivated by their own interests, or constrained by a set of organisational constraints or imperatives. ● Shared values and goals, and in some cases managing different or conflicting values or goals, were seen as significant in understanding the role of the leader in the collaborative governance literature.

Innovative	
Number of abstracts reviewed	42
Summary of findings	● Innovation was a major theme in the literature, although it was usually discussed within the context of a more specific area of interest, for example organisational learning and innovation, or organisational ambidexterity and innovation.

Creative	
Number of abstracts reviewed	12

Summary of findings	• Creativity did not emerge as a major theme in the literature. Other concepts such as innovation, double loop learning, or exploration featured more prominently in the literature and captured a similar type of quality.

Ambidextrous	
Number of abstracts reviewed	11
Summary of findings	• The literature on ambidextrous organisations was heavily connected to the wider organisational learning literature. The literature is characterised by concern with managing the contradictory goals of exploration and exploitation within organisations. • The results in the public sector were limited, however the results that emerged were very relevant to the challenges highlighted in the collaborative governance literature.

Appendix 2: Empirical Applications of Collaborative Governance

Author	Case	Ideal	Method	Findings	Notes
North (2000)	UK Government's Action Zones, Local Exchange Trading Scheme	Collaborative Planning	Case Study	Differences in local/national appetite, Healey's concept of hard and soft problems- e.g inappropriate bidding time scales, requirements to be	! need for empowerment

				effective partner, contextual/cultural barriers	
Huxham and Vangen (1996)	Multiple including, child poverty in Strathclyde Region,	Collaboration between public and non profit organisations	Multiple case studies/ workshops	Compromise, communication, democracy and equality, power and trust	
Johnston (2017)	UK government collaboration, multiple including England LEPs, health and well-being boards, Scotland community planning partnerships	Collaboration, gender analysis	Survey	Notes the high proportion of men in leadership positions within interorganisational networks, exclusion in collective decision making, deficit in research	
Smith et al (2006)	Multiple, UK, including- sure start, education action zone, local strategic partnership	Corporate governance, government, business and civil society	Case study	Partnerships are flexible management tools, but exhibit a democratic deficit, rules and procedures	accountability
Vangen and	Multiple, including	Collaboration,	Research oriented	Goals are collaboration	! Common goals

Huxham (2011)	poverty alleviation alliance, public health alliance, care for the elderly	common goals	action research	dependent/independent, content-substantive purpose or collaborative process, overtness, dynamics of goals	
Cristofoli et al (2012)	Switzerland Public homecare service networks, public, private, non-profit-4 networks	Shared governance networks	Cross case analysis	Coordination mechanisms, formalisation and network manager/administrator effective	! leadership, formalised coordination mechanisms
Crosby and Bryson (2010)	U.S, Minneapolis-St Paul region, The metropolitan council, MetroGIS	Integrative leadership, the creation and maintenance of cross sector collaborations	Case study and literature review	Leadership, collaboration sponsors and champions	!-
McGuire (2002)	Texas mental health MHMR system	Network manager	Case study and literature review	Network management strategies based on-Activation, mobilisation, framing, synthesising- linear and recursive strategies	leadership

McGGuire and Silvia (2009)	U.S.A country managers across 46 states	Network leadership, network effectiveness	Questionnaire 505 county emergency managers	Leadership plays an important role, framing, mobilisation and synthesising found to be significant, activation found not to be stat significant	leadership
McGuire and Silvia (2010)	U.S.A, 46 states, county emergency managers		Questionnaires, 417 public sector leaders	Frequency of organisation oriented behaviour vary widely, leaders in network focus more on people orientated behaviours and less on task oriented behaviours compared to leading their agency	Leadership
Armistead et al (2007)	Multiple, UK	Multi-sectoral partnerships	Working with leaders	Advocate first, second and third person approach to interpreting leadership	Leadership
Feyerherm (1994)	-	Leadership	Longitudinal study of two interorganisational rule making groups	Shifting frameworks, gestalt, behaviours that illuminated assumptions, created new possibilities, initiated collective actions	

Alexander et al (1998)	25 Community Care Network Demonstration Sites	Governance in public private partnerships	Semistructured interviews, survey	Governance characteristics and context features, adopting a common vision, clarifying roles, accountability to the community, creating and sustaining collaboration, partnership growth and development	
Huxham and Vangen (2000)	Multiple, UK, partnership on health promotion economic and social regeneration, environmental issues	Collaborative governance	Action research	Leadership through structure, participants, process- representing and mobilising, enthusing and empowering	! Leadership, leadership media
Imperial (2005)	Six watershed programs	Enhancing network governance	Comparative case study, interviews with 200 individuals, documents	Collaboration not appropriate in all contexts	! contextual factors
Weech-Maldonado and Merrill (2000)	Camden City Health Improvement Learning Collaboration (1993)	Building partnerships	Case Study	Various lessons organised around collaborative level, community level and cultural level	!

Roussos and Fawcett (2000)	Community health improvement	Collaborative partnerships	Review	Clear vision, action planning, developing and supporting leadership, documentation and ongoing feedback, technical assistance and support, financial resources, making outcomes matter, contextual factors	!
Rummery (2006)	UK, Health and social care partnerships	Collaborative governance, citizen participation	Review, documents, case study	Barriers and challenges	Citizen participation, social exclusion

Appendix 3: Empirical Applications of Organisational Learning

Author	Case	Ideal	Method	Findings/Factors	Notes
Betts and Holden (2003)	A local authority in England (described as "Bruford City Council"), Two innovation	Organisational Learning	Case study, semi-structured interviews with managers	Barriers and failure- Silo effect, individual rather than real organisational learning, but with	!

	programmes, Investors in Management, Employee led Development			two small success stories	
Elliott (2020)	Public sector managers across Scotland and Wales	Impact of austerity on learning	Interview, 51 public sector managers	Austerity plays a role in stymieing organisational change	Barriers
Moll (2015)	Netherlands, Four cases, including Deelstoel (share seat) a governmental collaboration partnership of public organisations working with other institutions in other cities	New Ways of Working (NWW) influence on Innovative work behaviour	Case studies	New ways of working had a positive impact on innovative capacity	Human resource management New ways of working is an umbrella term including teleworking, flexible workspaces, flexible working hours and ICT support
Rashman and Hartley (2002)	Beacon Council Scheme	Learning, Knowledge transfer	Case study 59 local authorities- focus groups, telephone interviews	Barriers- underlying theories of organisational learning may be insufficient	Leadership, other beacon schemes in education and health

Common (2004)	UK government, Centre for Management and Policy Studies, toolkit, policy hub	Organisational learning	Review of documents and literature	Argues learning organisation ideal can only be realised in a very narrow sense by public organisations	
Vince and Broussine (2000)	146 local authorities in England and Wales	Organisational learning	Questionnaire with quantitative and qualitative sections	Barriers- local authorities create a self-limiting notion of organisational learning based on performance management, blame culture	! Learning how to learn
Addicott et al (2006)	NHS Cancer Networks in London	Organisational learning	Case Study	Barriers- competition, imposing targets/performance management	! networks captured, Also Currie and Suhomlinova (2006) and Bate and Robert (2002)
Currie and Suhomlinova (2006)	UK NHS	Knowledge sharing	Interview, 29 with general health professionals and further interviews	Barriers- power differentials	

			with specialists		
Dekker and Hansen (2004)	Various, Criminal justice, Palme case, Sweden, Interregional criminal investigation team Amsterdam	Learning under pressure	Case study, comparative case study	Cognition and behavioural dimensions, Dutch police showed signs of structural learning,	!-
Kakabadse and Kakabadse (2003)	UK civil service, modernising government agenda	Collaborative inquiry	Case study	Democratic dialogue more fruitful than top down approach in achieving meaningful change	
Nutley and Davies (2001)	NHS	Organisational learning	Review of documents, literature	Various- focus on double loop learning, codification of knowledge, minimise tensions in government guideance	
Pedler (2002)	Local government, neighbourhood facilitators, community regeneration and local	Accessing local knowledge, knowledge generation, organisational learning	Case Study, Nonaka	Limits of Nonaka and Takeuchi's theory	!-

	democracy in Walsall				
Rashman and Randor (2005)	Beacon Council Scheme	Learning to improve	Case study	Need to develop holistic framework which embraces all forms of learning, improvement, innocaiton and change	
Shaw et al (2004)	Primary care organisations, research, pilots	Developing research management and governance capacity	Case study, interviews	Partnership working, critical mass, concerns with levels of bureaucracy	
Vince and Saleem (2004)	UK borough council	Impact of caution and blame on organisational learning	Case study, interviews 9 senior managers	Illustrations of how these characteristics inhibit learning	!-

Appendix 4: Empirical Applications of Organisational Ambidexterity

Author	Case	Ideal	Method	Findings/Factors supporting	Notes
Palm and Lilja (2017)	Two public organisations in Sweden	Ambidexterity	Interview, Soft Systems Methodology	Nine enabling factors	

Touati et al 2016	Quebec Health Care System, Knowledge Sharing and Skills Development Initiative	Innovation, allow degrees of freedom to enable innovation	Case Study, interviews and documents	Institutional entrepreneurs, knowledge mobilisation activities, dialogue and decisions structures, experimental projects at local level, coaching activities	Leadership, ecologies of innovation, embracing ambiguity, mixed correlation between collaboration and innovation
Nuttaneeya Torugsa and Arundel (2016)	Australian Public Service Commission State of Service survey (2011)	Innovation, Workplace creativity, complex innovations	Quantitative, ordered probit model (4,369 Australian Gov Employees)	Manage and circumvent obstacles, draw on variety of sources for ideas and information, workplace conditions (awards, recognition, resources for innovation)	Barriers
Canneaerts et al (2016)	Two Belgian public cultural centres	Ambidexterity	Comparative case study, 21 semi structured interviews, analysed with Nvivo	No pure ambidextrous design, low levels of centralisation and formalisation, T shaped skills, supportive context	Team ambidexterity

Choi and Chandler (2015)	Child Welfare reform, Hawaii-Ohana conferencing (exploration), Wrap Hawaii (exploitation)	Ambidexterity	Exemplary case study	Barrier-exploration and failure trap Barrier-exploitation and success trap	Motivations for public sector agencies to choose exploration or exploitation
Kinder (2003)	Local Councils, Six EU states (incl Leeds England, West Lothian, Scotland)	Interoperability	Survey, Comparative case studies	Inherited cultures and institutional arrangements impact interpoperability	
Lewis et al (2017)	City governments, Barcelona, Copenhagen, Rotterdam	Innovation	Online survey of senior administrators	Leadership qualities, networking, innovation drivers	
Arundel et al (2014)	European public sector agencies, 2010 Innobarometer survey of innovation	Innovation, bottom up agencies- service innovations, process/organisational innovations	Factor and cluster analysis, 3273	Bottom up and knowledge scanning agencies out performing policy dependent agencies	Agency and national factors

Daglio et al (2015)	Multiple case studies- including in the UK: Policy Lab, NHS and local government, Social Impact Bond, Prime Minister Delivery Unit)	Innovation, organisational learning, exploitation	Case study	Tools for collaborative working practices, coproduction with citizens and society	leadership
Emery et al (2016)	Multiple Mindlab, Wealth of Ideas (Denmark), Development of Wellbeing and Civil Safety in Municipalities (Finalnd), Leadership development in Federal Public Service Finance (Belgium)	Innovation	Case Study, best practice examples	Illustrations of innovation capability in relation to culture, leadership, expert knowledge, innovative work design, stakeholder involvement.	Leadership
Smith and Umans (2015)	Swedish public organisations, waste	Ambidexterity at the local government level, managerial focus,	Questionnaire, across 290 Swedish	Local Government Corporations have higher	Important role of leadership

	management	exploration and exploitation	municipalities	levels of organisational ambidexterity than Local Government Administrations	
Tiwana (2007)	Project alliance, including a large American services conglomerate and internet business	Ambidexterity	Questionnaire (173 individuals, in 46 project alliances spanning various organisations	Role of bridging ties and strong ties in innovation seeking alliances	
Wynen et al 2013	Multi country survey data of over 200 public sector agencies- Beligum, Italy, Netherlands, Hong Kong, Romania	Innovation oriented culture	Questionnaire/ survey- innovation, risk taking, willingness to experiment, creativity	High levels of managerial autonomy and result control have positive effects. Interaction between high personnel management autonomy and high result control has a negative effect	

Appendix 5: Typology of Factors of Effective Inter-Organisational Collaboration

Typology of factors of effective inter-organisational collaboration and outcomes for the assessment of effective inter-organisational collaboration in the public sector (where S = "strong influence", M= "medium influence", W="weak influence")

Type	Factor	Character		
		Determining	Influencing	Strength of influence
External Environment	Governmental policy (central, regional and local)	X	X	M
	Legal regulations	X	X	M
	Development of social problems and needs	X	X	M
	National/regional culture	X	X	M
	Social conditions in the region	X	X	M
	Economic conditions in the region	X	X	M
Organisation characteristics	Regulations in particular organisations	X	X	S
	Organisational, professional and social culture of organisations	X	X	S
	Leadership with organisational and communication skills	X	X	S

	Team building	X	X	M
	Resources of individual organisations (finance, time, skills, etc)	X	X	S
	Structure of collaborative tasks		X	S
	Structure of working group (heterogeneity, size)		X	S
	Common ground for collaboration (group norms, values, vocabulary, practices)		X	S
	Collaborative technologies		X	W
	Adaptability to changing work requirements		X	S
	Flexibility and openness		X	S
	Organisation of work in individual organisations		X	S
	Organisational structure of individual institutions		X	S
People Characteristics	Experience of inter-organisational collaboration	X	X	S
	Professional competence of the employees from individual organisations	X	X	S
	Conflicts between personnel form individual organisations	X	X	W

	Informal connections between personnel	X	X	W
	Personality of the leaders of individual organisations	X	X	W
	Friendship between personnel	X	X	W
	Respect between personnel	X	X	W
	Commitment (wiliness to cooperate) of particular organisations	X	X	S
	Trust between personnel	X	X	M
	Understanding between personnel	X	X	W
Interorganisational collaboration	Professional and informal communication between personnel from individual organisations		X	S
	Communication in interorganisational working teams		X	S
	Coordination of working in individual organisations		X	S
	Coordination of interorganisational working teams		X	S
	Incentives to inter-organisaitonal collaboration		X	M

	Organisation of collaborative work (time pressured, competitive, stability)		X	M
	Level of shared inter-organisational knowledge		X	W
	Learning processes between organisations		X	M
	Joint trainings		X	M
	Error management in individual organisations		X	W
	Knowledge management in individual organisations		X	W
Relational Factors	Close links between organisations	X	X	S
	Conflicts between organisations	X	X	S
	Expectations of collaborating organisations	X	X	S
	Constraints in interorganisational collaboration	X	X	M
	Shared mission, vision and goals	X	X	W
	Interest in collaboration in fellow partners	X	X	W
	Ability to compromise between organisations	X	X	M

	Self-interest of individual organisations from collaboration	X	X	W
	Specialisation of collaborating organisations	X	X	S
	Interdependence of organisations	X	X	S
	Interorganisational trust	X	X	S
	Equitable contributions to collaboration of each willing organisation		X	W
	Uncertainty conditions of collaborative work		X	S
	Time of interorganisational collaboration		X	S
	Iteration of interorganisational collaboration		X	M
	Roles of particular organisations in collaboration		X	S
	Balance between dependence and autonomy		X	W
	Inclusiveness to collaboration of needed organisations		X	W
	Demands of collaborative tasks		X	S

	Performance of interorganisational collaboration		X	W
	Support within collaborating organisations		X	W
	Management of interorganisational collaboration (styles, transparency of decisions and guidance)		X	w
	Joint decision making by organisations		X	M

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