

This is an Open Access document downloaded from ORCA, Cardiff University's institutional repository:<https://orca.cardiff.ac.uk/id/eprint/108136/>

This is the author's version of a work that was submitted to / accepted for publication.

Citation for final published version:

Hadfield, Mark and Jopling, Michael 2018. Case study as a means of evaluating the impact of early years leaders: Steps, paths and routes. *Evaluation and Program Planning* 67 , pp. 167-176. 10.1016/j.evalprogplan.2018.01.005

Publishers page: <http://dx.doi.org/10.1016/j.evalprogplan.2018.01.0...>

Please note:

Changes made as a result of publishing processes such as copy-editing, formatting and page numbers may not be reflected in this version. For the definitive version of this publication, please refer to the published source. You are advised to consult the publisher's version if you wish to cite this paper.

This version is being made available in accordance with publisher policies. See <http://orca.cf.ac.uk/policies.html> for usage policies. Copyright and moral rights for publications made available in ORCA are retained by the copyright holders.



Case study as a means of evaluating the impact of early years leaders: steps, paths and routes

Mark Hadfield, Cardiff University
Michael Jopling, Northumbria University

Corresponding author:
Professor Mark Hadfield
Cardiff University, School of Social Sciences, Glamorgan Building,
King Edward VII Avenue, Cardiff, CF10 3WT
029208 74907
HadfieldM@cardiff.ac.uk

1. Introduction

In an era where neo-scientific methodologies dominate many areas of educational evaluation and research, it is perhaps unsurprising that the role and value of case study have come under scrutiny. In those areas of programme evaluation where quasi-experimental designs are most influential, there is a danger of it being relegated to a peripheral role (Donmoyer and Galloway, 2010; Jolley, 2014). This could result in case study being treated only as a means of developing initial hypotheses for testing or of illustrating or grounding formal findings, rather than contributing more substantively to our understanding of the phenomenon being studied.

The highly-contextualised knowledge provided by evaluative case studies might at first appear to be limited when contrasted with the ‘general characteristics’, linear logic models, and effect sizes generated by evaluations using randomized controlled trials (RCTs) and matched sample designs. Latterly, the utility and generalizability of such quasi-experimental approaches have been called into question, particularly in respect of their capacity to guide the development and implementation of large-

scale professional development programmes (Desimone, 2009; Breault, 2014; Hill, Beisiegel, and Jacob, 2015). It is the contention of this paper that educational leadership is an area in which evaluative case study still has a pivotal role to play in describing and conceptualising the nature of the local causality involved in leaders bringing about changes in organisations.

As studies in education have developed to include more collective, or distributed, notions of leadership theories of how individual leaders' affect change have increasingly come to focus on the part played by organisational context. Context being brought out of the shadows of educational leadership research (Hallinger, 2016) has led to a radical questioning of the ways in which overlapping contexts and their effects have been conceptualised and how they interact with leaders, their approaches, and effects (Leithwood, Patten and Jantzi, 2010; Gronn, 2011).

A key contextual dynamic is that been between groups of leaders in a given context, particularly between formal and informal leaders (Fairman & McKenzie, 2014; Stoelinga, 2008).

This paper argues that to capture adequately the effects of the complex dynamic between leaders and the social contexts of the organisations they work in requires the use of case study designs that use an inclusive theoretical construction of leadership. Inclusive in the sense that it includes both a focus on how individual leaders' influence others and their role in shaping the social and organisational contexts in which they operate.

Understanding the nature of the dynamics between leaders and their contexts is key to resolving the 'enactment conundrum' (Ball, Maguire and Braun, 2012) at the centre of the evaluation on which this paper is based. This conundrum relates to how to describe the interaction between individual factors and contextual influences when explaining the effects of leadership development programmes on participants' subsequent performance. The theoretical response to this conundrum was two-fold. Firstly, both individual and collective constructions of leadership were used to explain how existing formal and informal leadership structures, a key contextual factor (Braun, Peus, Weisweiler and Frey, 2012), affected individual leaders' approaches to improving the quality of provision. Secondly, the dynamic between leaders and these structures was illustrated using a theoretical framework that encompassed the transactional/normative, systemic/regulative, and dispositional/socio-cognitive aspects of organizational change (Tilly, 2008).

The resulting cases described not only how leaders' attempts at improvement were prefigured by existing leadership structures but also how they set out to reconfigure these over time. The dynamic between leaders and their contexts was described using three nested constructs: steps, paths and routes, in order to reflect the complexity involved in attempting to describe the linkages between leadership effects and organizational change.

2. Background to the evaluation

The paper is based on an evaluation of a national leadership development initiative in England: Early Years Professional Status (EYPS). The early years sector in England

has historically been considered as having lower status than other sectors. Practitioners have generally been less well-paid and less well-supported by leadership development structures and programmes, which have tended to focus on schools and school leaders (*Reference deleted for peer review*). EYPS was introduced in 2007 towards the end of a period of increased central government commitment to early years provision, which had led to a rapid expansion of the sector and associated concerns about the quality of provision and its leadership. It was intended to improve the quality and status of leaders in the early years sector by both drawing in new university graduates and providing a nationally recognised leadership status for graduate leaders already working in the sector (CWDC, 2008). The developers of EYPS drew on existing into effective educational leadership development programmes, both in terms of its content, specifically the focus on the leadership of learning, and its overall mode of delivery, which was based on reflective engagement in work-based interventions and inquiries. The relative paucity of prior research into effective leadership in the early years sector at that time meant that the developers had a limited specialised knowledge base to draw on. Two linked evaluations of EYPS were commissioned. The first, a small-scale matched sample design (Mathers, Ranns, Karemaker, Moody, Sylva, Graham et al, 2011), set out to establish if the early phases of EYPS had a positive impact on the quality of provision in settings. The second, which is the focus of this paper, aimed to support the development of the programme by generating detailed insights into how leaders improved the quality of provision in different types of settings through multi-site case study.

3. Conceptualising leadership and leadership effects

The theoretical framework for the evaluation drew on school leadership research and organizational theory to supplement the limited availability of studies of early years leadership at that time. The development of a theoretically robust account of the relationship between leaders approaches, the influence of organizational contexts, and leaders' effects on the quality of provision was crucial in helping the evaluation team grapple with a very specific 'enactment conundrum' (Ball et al, 2012). The key theoretical and methodological conundrum being the relative emphasis to be given to differences in individual leaders' capacities and approaches or variations in the contexts in which they worked when attempting to determine the impact of gaining EYPS on their approach to leadership.

3.1 Effective leadership in the early years

Interest in leadership in the early years sector in England and elsewhere has developed steadily over the last two decades due to increasing recognition of the effect of early years education on children's later school performance and the related policy commitments to expand provision (Feinstein, 2000; DfES, 2006; Peisner-Feinberg & Burchinal, 1997). Historically, early years settings have been under-researched in comparison to schools and the extent to which findings based on school leaders can be applied to early years leadership is strongly disputed (Aubrey, 2011; Bush, 2013).

However, in contrast to the relative paucity of leadership research in the early years, a sustained research programme had explored the link between the quality of

provision and longer-term outcomes for children (Mooney, 2007). Longitudinal and concurrent studies had shown that high quality early childhood education can significantly benefit children's learning, academic achievements, self-esteem and attitudes towards lifelong learning (Sylva, 1994; NICHD, 2002; Burchinal, Roberts, Riggins, Zeisel, Neebe & Bryant 2000). Although the extent to which these early benefits persist through childhood has been found to vary across research projects (Hillman and Williams, 2015), a substantial evidence base suggests that variations in the quality of provision in early years settings can affect a wide range of cognitive, social and emotional outcomes in children's learning and development (Siraj-Blatchford, Sylva, Muttock, Gilden & Bell, 2002; Clifford and Bryant, 2003; Sylva, Melhuish, Sammons, Siraj-Blatchford, & Taggart, 2004; Mathers and Sylva, 2007).

One of the earliest accounts of effective leadership in the early years sector in England, the researching effective pedagogy in the early years (REPEY) study (Siraj-Blatchford, et al 2002), was based on case studies of a number of settings in which high quality provision had been linked to positive outcomes for children. The main limitation of the REPEY study was that it was based on a series of retrospective case studies, which described what leaders of high quality settings were seen to do, rather than describing how they had improved these settings. Similarly, the initial evaluation of EYPS on leaders' practices and the quality of settings' provision, which used a matched sample design, demonstrated that gaining EYPS had a statistically significant impact on leaders and their ability to improve the quality of provision in a setting when assessed against an objective set of research-based measures (Mathers

et al, 2011). However, it did not generate a detailed account of effective early years leaders brought about improvements in different types of settings.

The lack of prior research in early years leadership led to the decision to utilise a multi-site case study methodology in order to explore how 30 leaders with EYPS in a range of different types of settings brought about improvements in the quality of their provision. The leaders were conceptualised as ‘practice leaders¹’, using the intentionally broad definition of leadership taken from the EYPS Standards (CWDC, 2010, p. 17) which focused on ‘making a positive difference to children’s wellbeing, learning and development’. The evidence base around school leadership was used to design how the cases would explore leadership effects over time.

3.2 Individual and collective leadership and organizational contexts

Educational leadership research has been heavily influenced by trends within leadership research more generally, not least of which has been the gradual shift from studies of individual heroic leaders to more collective, or distributed, notions of leadership (Bush & Glover, 2014; Gunter, 2016). Research into distributed leadership has highlighted how formal leaders place themselves within existing staff networks in order to exert influence and draw down support (Spillane, 2006; Miškolci, 2017). Thus, the trend in school leadership research has been to emphasise the role played by the intersection of formal structures and informal leadership networks (Gronn, 2011; Stoelinga, 2008). Discussion of the benefits to leaders and the influence on

¹ To minimise confusion, practitioners with EYPS have been described throughout this paper as ‘practice leaders’.

their leadership has increasingly been conceptualised in terms of the exchange, development and accumulation of different forms of capital (Spillane, Hallett and Diamond, 2003; Minckler, 2014).

The case study design would need to encapsulate both individualistic and collective notions of leadership. The actual approach adopted by practice leaders was likely to be affected by key contextual variations between settings, such as numbers of staff and the history of leadership and improvement, as well as by individual characteristics, such as the relative experience of individual leaders and the challenges they faced in bringing about change. The two key strands of leadership research drawn on by the evaluation team were principal effectiveness (Hallinger and Heck, 2011) and distributed leadership (Spillane, 2006; Harris & DeFlaminis, 2016).

In combination the two strands encompassed individualistic and collective notions of leadership and their different constructions of the dynamic between leaders and organisational contexts. As the cases developed both strands of research were drawn on with the relative importance of each in a specific case being based upon an initial analysis of the practice leaders approach. How the enactment conundrum was resolved varied across the cases depending upon how three key areas were conceptualised and analysed:

- a) The extent to which individual leaders' approaches and their ability to influence others *directly* were seen to be configured and affected by the school context (Day, Gu and Sammons, 2016).

- b) The ways in which various leadership approaches to *influence* staff *indirectly* were affected by contextual variables (Gurr, Drysdale and Mulford, 2010).
- c) The extent to which leadership approaches were affected by the impact of external socio-cultural factors on school processes and cultures (Clarke and O'Donoghue, 2016).

School principal effectiveness research places individual senior leaders and their individual influence or agency at the centre of its theoretical framework. Research in this strand has generated numerous claims about the efficacy and relative importance of certain categories of leadership practices, often via calculations of their relative effect sizes, with regard to pupil outcomes (Hallinger, 2016; Robinson, 2007). Early principal effectiveness research popularised the use of causal or logic models in which context was theorised as a 'medium' through which leaders' practices, and hence their influence, had to travel. The foundational studies relied on iterations of a basic mediated-effects model that adopted a linear view of causality (Muijs, 2011). In such models, leadership practices do not have a direct causal impact on pupil outcomes, but are mediated by a range of intervening variables, in which organizational context is as a key variable, as Figure 1 illustrates.

Figure 1 *Mediated-effects model*

Insert figure 1

[Source removed for peer-review.]

Viewed as a medium, school context consists of various factors that may either support or hinder leaders: 'Some of those variables *moderate* (enhance or mute) leadership effects, others "link" or *mediate* leadership practices to pupils and their learning, the *dependent* variables in our proposed study' (Day, Sammons, Hopkins, Harris, Leithwood, Gu, et al, 2009, p. 19). Single path, linear 'mediated' models, as illustrated in Figure 1, are simple system accounts whose explanatory power is based on causal factors operating on, but not interacting with, each other. In a linear causal model, organizational context is only one of a number of 'intervening variables'. There is a tendency in such models, due to a form of confirmation bias, to place greater focus on 'positive' (mediating) contextual variables, than on those (moderating) more likely to have a 'negative' effect.

Recent, more developed logic models contain sequences of unilateral and multilateral causal chains, or paths (Leithwood et al, 2010). A feature of these later models is the reciprocal nature of the relationships between leaders and the contexts in which they operate (Heck & Hallinger, 2010a; 2010b). First put forward almost thirty years ago by Pitner (1988), reciprocal models have still to gain the same level of popularity amongst leadership and improvement researchers as mediated effects models. Reciprocal models require complex and expensive data collection frameworks operating over extended periods and are less amenable to the forms of statistical analysis used to validate linear models (Muijs, 2011). This has restricted their conceptualisation of the relationship between leaders and contexts mainly to forms of reactive or proactive feedback loops. Reactive loops, like earlier

contingency theories of leadership (Scott, 1981), are based on leaders adapting their approach to reflect not only the nature of the task at hand but also their relationships with others in their setting (Fiedler, 1964). In contrast, leaders operating in proactive feedback loops set out to change their contexts. For example, Heck and Hallinger (2010a) argue that leaders who set out to increase their schools' leadership capacity will, if successful, gradually adopt more collaborative approaches to leadership as the number and quality of leaders increases.

The second research strand drawn on, distributed leadership, developed out of research that drew attention to the social and organizational contexts in which leaders operate, particularly the effects of informal leadership structures (Lichtenstein, Uhl-Bien, Marion, Seers, & Orton, 2006; Spillane, 2006; Spillane & Kim, 2012). Leadership was treated as a multi-level organizational phenomenon set within, and emerging from, practitioners' interactions in overlapping networks of leadership relationships (Finnigan & Daly, 2012; Moolenaar, 2012; Penuel, Riel, Frank, & Krause, 2009). From the more social perspective of distributed theories, leadership is regarded as an essentially collective phenomenon, inextricably linked to organizational context. The relationship between leaders and context is constructed as a complex of interlinking networks shaped by formal and informal organizational and social structures:

Leadership is a social influence process whereby intentional influence is exerted by one person (or group) over other people (or groups) to structure the activities and relationships in a group or organisation. (Yukl, 2002, p. 3)

Leadership in this strand of research is constructed as emerging from the social context of an organization, 'stretched' across the interactions and relationships of its members (Gronn, 2002; Hiller, Day & Vance, 2006; Spillane, 2006). Leadership becomes a collective social enterprise, spatially dynamic in that it is not bounded by organizational boundaries, but located in and across internal and external networks of leaders operating at all levels (Balkundi and Kilduff, 2006). The extent to which leadership in an organisation is an individual, collective or hybrid phenomenon has led it to being constructed as a 'constellation' of agency-structure interactions (Gronn, 2009; 2011). In such constellations, a wide cast of actors with a broad range of intentions exert very different types of influence through both formal and informal structures.

From a distributed perspective, leadership is as concerned with reconfiguring the organizational context, and the structures that affect interactions within in it, as with establishing influence. Studies in this research strand have been key in introducing complex systems perspectives to describe the contextually-specific nature of leadership, the non-linear nature of the causality that links leaders' practices and impacts, and the dynamic and emergent nature of leadership (Rosen, 1991).

The drawing together of the two strands of leadership research was seen as necessary not only to encompass the range of approaches likely to be encountered across 30 settings, but also to ameliorate each strands respective limitations. Studies of distributed leadership have focused on providing detailed accounts of the

dynamics of how leaders' agency arises from, and reconfigures, school contexts (Ling, 2012). By mapping the spatially and temporally dynamic nature of collective leadership, research in this strand has made a strong theoretical contribution to the study of the connection between leadership and organisational development. A major limitation of studies of distributed leadership is that they have often struggled to articulate how the effect of emergent social leadership on organizational structures results in improved pupil outcomes (Lichtenstein et al, 2006). In contrast, studies of the effectiveness of individual principals have tended to compromise on the theoretical expansiveness of their constructions of the dynamic between leaders and school context in order to build correlational connections along logic models that link leaders' practices with pupil outcomes (Day and Sammons, 2013). Collectively, studies in this area have covered a wide range of potential interactions between leadership effects and school context, but they have tended to be relatively static accounts. However, the construct of organizational context has gradually developed from being treated as a single medium containing a relative constant mix of variables through which leaders' influence passes to being regarded as more complex, heterogeneous effect 'paths' along which a range of leadership effects travel. Individual leaders enact their leadership in very different ways depending on which paths they select and whether they operate reactively or proactively as their routes take them through various aspects of the school context (Leithwood, Patten & Jantzi, 2010). Combined with the interactional focus of the distributed perspective, these paths and routes, and the steps leaders took down them, were central to our case study design.

4. Methodology

The evaluation was based on 30 contemporaneous longitudinal case studies of practitioners who had recently gained EYPS. The case studies ran over three years during which the extended research team tracked the effect of the 'practice leadership' (Authors, 2015) of 42 leaders with EYPS on the quality of provision and organizational contexts in their settings. The longitudinal nature of the cases made it possible to construct an 'improvement trajectory', based on a series of measurements of the quality of a setting provision, that could be set alongside a narrative account of individual leadership effects. The use of multiple cases allowed for the analysis of a range of interactions between leaders and organizational contexts as they varied in terms of their size, the nature of the communities they served, and the initial quality of their provision.

In this way, the case study design combined elements of both principal effectiveness research and studies of distributed leadership in an attempt to overcome the limitations associated with each strand in accounting for leadership effects. On the one hand, the case studies followed individual leaders as they selected and pursued certain improvement paths in order to determine the extent to which following such paths resulted in improvements in the 30 settings. On the other hand, the cases captured in real time how leaders developed and enacted their own leadership via studying the dynamics of their interactions with a key aspect of their organizational contexts: the existing informal and formal leadership networks (Beijaard, Meijer, & Verloop, 2004; Day, Elliot, & Kingston, 2005). As a theoretical reconciliation of two research strands, the case study design was based on treating individual leaders as

taking steps down a series of improvement paths, while recognising that the routes these paths took through organizational contexts was affected by the interactions between overlapping networks or formal and informal leaders.

4.1 Responding to the enactment conundrum: steps, paths and routes

The enactment conundrum was tackled by treating the practice leaders as bringing about change by taking a number of steps down a series of paths to improvement, an idea adapted from principal effectiveness research. A summative quantitative analysis of the improvement trajectories of the quality of each setting's provision provided the foundational level of evidence on which leaders' narrative accounts of their steps and paths were based. The cross-case analysis focused on the combinations of different improvement paths leaders adopted, rather than their enactment of similar leadership practices, as a means of understanding the role played by contextual factors. The dynamic between leaders and organisational context was discussed in relation to the routes taken by individual paths through the setting.

The description of an improvement **path** was based on reconstructing the key **steps** leaders had taken along it. Illustrated in Figure 2, a step was defined as a narrative account of the conceptual links between past, present and future interactions created by a specific event in a particular context, and the situational consequences it gives rise to (Lawler, 2002). In this way, a narrative step describes an aspect of the local causality at play in a setting without minimising the complexity and reflexivity involved in the practice leader's attempts to effect change:

'Leadership events operate with a degree of contingency and contextual specificity concerning their situational consequences. The notion of causality operating within a step goes beyond sheer association [...] and deals well with the complex network of events and processes in a situation.' (Miles and Huberman, 1994, p. 147)

Figure 2. *A Narrative Step*

Insert figure 2

[Source removed for peer-review.]

Describing the dynamic between a leader's approach and the context of their setting required re-tracing the **routes** the paths took. The routes in these cases described the interactions between the practice leader and the leadership structures and networks in the setting. The analysis of these routes was based around considering to what extent, and when, a change in direction was driven by an individual leader; emerged from informal leadership networks; or originated from within the formal leadership structures. (It may have involved any combination of these potential sources.) The cases also considered the effect the improvement paths had on those it connected along its route, and how this affected the route of subsequent paths.

4.2 Researching a 'step': the links between events, contexts and situational outcomes

The data collection surrounding each step, and the resulting path, attempted to capture at a given point in time a practice leader's 'theory of change' (Connell &

Klem, 2000) in respect of improving the quality of provision in a setting and their actions during a specific 'improvement event'; the dynamic between this event and the context; and how this dynamic was linked to a range of situational consequences.

Improvement events

What constituted an improvement event was left theoretically loose in that leaders were simply asked at each visit to describe what areas of improvement they were working on or had been working on since the previous visit. Where possible, these accounts were based on journals maintained by the practice leaders, supplemented by planning materials, meeting notes and policy documents.

Organizational context

According to Tilly (2008), theoretical secularism, combined with a normative focus on how organisations remain relatively stable social entities, has limited researchers' accounts of the dynamics of organisational development. Tilly (2008) argues that accounting for the dynamics of change within organizational contexts requires the utilization of three overlapping perspectives: transactional/normative, systemic/regulative, and dispositional/socio-cognitive. Understanding how a setting's context influenced the route taken by a leader on a particular improvement path, required a case design that incorporated all three of Tilly's perspectives:

- *Transactional/normative accounts* construct leaders' interaction with a context as an emergent property of repeated and sustained interactions between individuals. The normative aspect emphasizes that the patterning of such

interactions arises not simply from instrumental or systemic pressures, but from more symbolic interactions that shape values and norms and delineate roles, including those relating to leadership.

- *Systemic/regulative perspectives* view the dynamic between leaders and organizational structures through the lens of the power and influence individuals derive from their relative positions within coherent, self-sustaining entities, such as formal leadership structures. The regulative aspect of this is the codification of these differences in power and position into rules, regulations, sanctions and rewards. Influence in these processes is based on how status and authority provide leaders with the ability to direct rewards, impose sanctions, and formalise new approaches into plans and strategies.
- *Dispositional/socio-cognitive accounts* describe the dynamic between leaders and their social contexts on the basis of the relative orientations of individuals in a leadership relationship and the dispositions that affect the grounds on which influence is exerted and justified. The socio-cognitive nature of these accounts emphasises the important role played by practitioners' developing understanding and knowledge of a situation, how it might be improved and how such improvement should be brought about. Dispositions are not purely cognitive orientations, they can also relate to differences in individuals' ability to manipulate everything from emotions to levels of trust.

In combination, the three perspectives were used to capture why a leader selected a particular improvement path, account for leaders' relative progression along different paths and how these paths' routes were shaped by leaders' interactions with the informal and formal leadership networks in their settings.

Data collection on the *transactional* and *dispositional* dynamics between leaders and their settings was based around repeated measures of their position in the informal leadership networks in their settings. To map the changing position, and nature of leaders' interactions, in these informal leadership networks, three separate social network analysis (SNA) surveys were carried out in each setting (Borgatti, Everett, & Johnson, 2013). The analysis of the resulting sociograms focused on shifts in practice leaders' position, and their levels of connectedness, in the overlapping support and leadership networks developed in settings (Penuel, Sussex, Korbak & Hoadley, 2006; Hoppe & Reinelt, 2010; McLinden, 2013).

The SNA surveys were designed to explore a range of support and leadership relationships of varying depth and specificity between practitioners in the settings.

Six questions were repeated in each survey:

1. Who are you most likely to talk to in the setting about your work with children?
2. Who in the setting are you most likely to go for reassurance and support about work related issues?

3. Which people in the setting do you go to for help with routine work-related issues?
4. Which people in the setting do you go to for new ideas about improving practice in the setting?
5. Whose advice or support has substantively changed how you develop children's social and emotional wellbeing in the last 12 months?
6. Whose advice or support has substantively changed how you develop children's learning in the last 12 months?

The SNA tracked shifts in the position and connectedness of leaders and were supplemented with interview data in order to capture changes to the social construction of individual leaders and the development of collective leadership over time. Figure 3 is an example sociogram resulting from the final SNA question about children's learning at the end of the case study. The lead practitioner with EYPS (identified as LP/EYP) is still relatively central but since the start of the case her centrality and connectivity, and that of her fellow lead practitioner (LP), had reduced as the two room leaders (RL) whom she had supported had taken on increased leadership responsibilities. The sociogram supported the practice leader's accounts of her attempts to build a more distributed and collective sense of leadership.

Figure 3. *Example sociogram (Setting LS49)*

Insert figure 3

[Source removed for peer-review.]

Data collection on *systemic* and *transactional* dynamics began with the creation of a series of organograms that charted how formal leadership structures in settings evolved during the case studies. The organograms for each case were analysed alongside the sociograms developed in response to Question 4 of the SNA survey in order to explore overlaps and interactions between formal and informal leadership structures.

The study of the *dispositional* dynamics between leaders and others in each setting began with the recognition that the majority of these leaders were new to their role, their settings or both, and that most occupied a formal position between senior leaders and practitioners in their settings. Thus, they occupied in their settings a space similar to teacher leaders in schools (Muijs & Harris, 2003; York-Barr & Duke, 2004; Wenner & Campbell, 2017). Teacher leadership research has focused on the socio-cultural conditions in schools that support, or suppress, individual teacher leaders and the development of collective leadership (York-Barr & Duke, 2004). This became a focus of the case studies. Research on teacher leadership was drawn on to create the analytical framework, illustrated in Table 1, used to interrogate a range of case study data.

Table 1. *A framework for exploring the dispositional development of practice leaders*

Insert table 1

[Source removed for peer-review.]

Situational Consequences

Two sets of interdependent situational consequences were seen as key, as each would impact on subsequent steps along a given improvement path and, by affecting the existing leadership structures, the routes they would follow. These were the impact of leader's improvement events on the development of collective leadership in settings, and changes to the setting's quality of provision.

Assessments of changes in a setting's collective capacity for leadership were based on the pattern of interactions in leadership networks as revealed by SNA. Overall leadership capacity was seen as growing when more staff members were prepared to support others to improve their practice and the overlap between formal and informal leadership structures increased.

A set of research-based quality criteria were used to track changes in settings and to make relative judgements between cases concerning rates of improvement. The criteria brought together schedules developed in the REPEY (Siraj-Blatchford et al, 2002) and Effective Early Learning (Pascal & Bertram, 2007) research projects.

Researchers used scales and tools adapted from these two projects on at least three separate visits during each case study in order to capture an overall improvement trajectory for each of the 30 settings.

The analytical framework, that underpinned the design of the tools (illustrated in Figure 4), drew on the REPEY study (Siraj-Blatchford et al, 2002), and differentiated between three broad types of improvement paths.

Figure 4. *A framework for the analysis of leaders' chosen improvement paths*

Insert figure 4

[Source removed for peer-review.]

Improvements in **structural quality** would indicate leaders were following a path that focused on improving key structural elements in a setting, such as facilities, working conditions and human resources. Improvements in either of the two sets of **process quality** criteria would indicate how leaders were attempting to improve different aspects of a setting's provision. Impacts on the quality of **pedagogical framing** would indicate that leaders had been working on the learning environment and the 'behind-the-scenes' aspects of planning and routines. Improvements to **pedagogical interactions** would indicate that leaders had focused on improving the quality of child and staff interactions.

The framework limited the number of paths across all cases whose effects were measured against an objective set of criteria. The study of a limited number of paths allowed for an analysis of the relative contribution each made to a case's overall improvement trajectory. Disaggregating the effects of these different paths supported the analysis of how leaders' interpretations of their setting affected their

choice of improvement paths and affected the routes they took. The contingent causal analysis (Pawson and Tilley, 1997) of the effects of these different improvement paths and routes, in respect of overall rates of improvement, provided a number of general insights into why various paths and routes were more or less effective across contexts.

5. Analysis and Findings

The summative analysis of the case studies was tiered in order to create the range of insights required for the intended audiences of the research. The **first tier** of analysis was based on the summative cross-case analysis of the improvement trajectories of the 30 case studies. This measured how far settings had progressed along combinations of various improvement paths. On the basis of these trajectories settings were allocated to one of four categories, as shown in Figure 5. The improvement axis indicates the extent to which settings (identified by a randomly allocated 'LS' code) improved against their baseline measure of quality. The zero line indicates no overall improvement and a positive score indicates improvement from the baseline. The baseline quality score axis indicates the original assessment of the quality of the setting: the higher the score, the higher the initial quality of the setting. The crosshairs were created where the horizontal line that represents the mean baseline quality score crosses the vertical zero improvement line, which indicates no overall improvement in quality over the length of the study. Comparing these scores with the settings' final quality scores produced four improvement categories into which each setting was placed, which are mapped in the quadrant diagram in Figure 5.

Figure 5. *Case study settings' improvement categories*

Insert figure 5

[Source removed for peer-review.]

EYPS had been developed to improve the leadership in a sector whose rapid expansion had led to concerns over the quality of provision. Mapping the overall improvement trajectories of the 30 case studies indicated three trends that evidenced the programme's effectiveness in respect of its initial policy aspirations. Firstly, the most rapid rates of improvement in category 1 were associated with initially low quality settings where leaders had focused on pedagogical framing paths (see Figure 4). Secondly, in category 1 the settings that showed the largest overall gains in quality were those whose improvement paths included both framing and interactional aspects of pedagogy. Finally, the group of initially low quality settings in category 2 that failed to improve were those in which leaders were more likely to report difficulties in progressing along structural improvement paths due to issues such as high staff turnover or being insufficiently senior to influence decisions on funding or working conditions. The failure of category 2 settings to improve indicated how certain paths were interconnected in settings, particularly if they followed similar routes.

The **second tier** of analysis was concerned with the **route** taken by paths within a setting. The cross-case analysis indicated the extent to which leaders' judgements about which paths to pursue were influenced by different contextual dynamics, and their ability to influence them. For example, paths based on improving framing pedagogies, changing routines and improving the learning environment, were regarded as being relatively open to being influenced by individual leaders within formal leadership structures. Contrastingly, paths based on improving pedagogical interactions were regarded as less amenable to influence from individuals' actions of and therefore required more collective and dispersed forms of leadership. Effective leaders recognised how interactions between staff and children were not only set within historical organizational relationships, but also nested in some cases within local community norms around appropriate adult-child interaction. To address this required significant shifts in the dispositional and interactional dynamics of a setting. Consequently, leaders tended to see progressing along these paths as requiring greater collective engagement in informal leadership networks in order to ensure that new patterns of interactions introduced into settings were sustained in practice.

The **final tier** of analysis comprised final case reports with detailed accounts of the nature of local causalities in play in the 30 settings. The individual cases described how leaders' progression along different routes was shaped by the interaction of a range of transactional, systemic and dispositional influences (Tilly, 2008). In combination, these contextual dynamics affected the status and position of leaders and the growth of collective leadership. For example, one setting in which a leader

was unable to position themselves centrally within informal support and leadership networks faced difficulties in creating positive, or refuting negative, 'community narratives' (McGillivray, 2011) about improvement efforts, both historical and contemporary, and failed to develop greater collective leadership.

6. Conclusions

As a process intervention, case study can be both a costly and high-risk evaluative methodology (Mjoset, 2009). There was, for example, no guarantee that any of the cases selected in the EYPS evaluation would contain an 'effective' leader, in the sense that the quality of their setting's provision would improve over time.

Longitudinal case studies are justifiable, and necessary, when there is a lack of understanding and inadequate theorisation of the phenomenon under study. This research argued that this was the case in the area of early years leadership effects, particularly in respect of understanding the dynamics between leaders and their contexts. A failure to adequately theorise the role played by context was at the heart of Leithwood and Levin (2005, p. 4) critique of the then existing evaluations of school leadership development programmes in the UK and we would argue still has resonance in many areas of leadership research:

'We now have considerable evidence about what are the most potentially powerful [context] variables mediating school leader effects but we know much less about how leaders influence these mediators [context variables] [...] lack of attention to [moderating: enhancing or reducing] variables seems likely to be a major source of conflicting findings in the leadership research literature.'

Furthermore, when studies do attend to moderators [context variables], their choice has often been difficult to justify and largely atheoretical.

We have argued that adopting a case study approach to evaluating leadership development programmes is not a substitute for inadequate theorisation. Prolonged engagement within a case study provides researchers with opportunities to capture the dynamics between leaders and their organisational contexts. However, unless sufficiently inclusive and expansive theoretical notions of leadership and its relationship to organisational context are developed, many of these are likely to be missed opportunities.

Highlighting the notion of context in leadership research brings to the fore the 'local' nature of causality in which leaders operate and how this is nested within the multiple contexts in which leadership is enacted. Any evaluation of leadership effects will have to come to its own resolution of the enactment conundrum. The theoretical response described in this paper was to trace leaders' steps, paths and routes and to provide progressively more detailed descriptions of the relationships between leaders' practices, their interactions in their contexts, and changes in settings' quality of provision. Each tier of analysis operated with a causal logic that became incrementally less general and less linear and increasingly more local and more complex.

If case study is to be given a central role in future programmes of research into leadership effects, it will need to be easier to make comparisons between case

studies across research projects. Deriving bounded generalisations by comparing cases requires studies to be selected on the basis that they belong to theoretically distinct (or similar) categories of cases. In the EYPS evaluation, case selection was not sufficiently theoretically driven in respect of either the nature of the leadership it contained or how each settings' contexts interacted with that leadership. This limited the generalisations that could be made about leadership effects. The EYPS evaluation is as open to the criticism of being overly reliant on methodological individualism as many earlier studies of 'heroic' leadership, (Gunter, 2005; Hunter, Bedell-Avers, & Mumford, 2007; Yukl, 2009).

Making analytical comparisons across multiple case studies will require a sustained programme of research into leaders and their effects. The programme will not only need to capture the anatomy and hybridity of different leadership structures and so ascertain whether 'leadership configurations are potentially infinite in number or whether they cluster and consolidate around a smallish set of sub-types' (Gronn, 2009, p. 390). It will also need to determine if the interactions of these configurations with their contexts can also be categorised. However, there are significant theoretical and methodological challenges involved in developing the use of case study in this way. Commitment to overcoming these challenges will depend on the importance given to understanding the relative importance of individual and collective forms of leadership and their different dynamics within organizational contexts.

7. Lessons learned

The evaluation of leadership development programmes needs to keep pace with changes in both formal and substantive theories of leadership. The development of more collective theories of leadership has placed greater focus on the dynamic between leaders and the social context of organisations. When constructed as a process of social influence, leadership necessarily involves the study of the social context in which it is being enacted.

The evaluation required the theoretical reconciliation of aspects of both collective and individual theories of leadership. This was based on using the idea of steps, paths and routes to steer the evaluation between reliance on either overly simplistic linear notions of causality, such as those found in mediated effects models, or the adoption of overly intricate non-linear notions of causality, found within complex systems theory (Rosen, 1991; Patton, 2011). Tracing how the steps taken by leaders down certain improvement paths affected their route through an organisation was an attempt to capture the complexity of local causality, while still attempting to link leadership practices to organisational outcomes such as changes in the quality of provision.

The main compromise, or limitation, of the study was the decision to focus narrowly on certain aspects of leadership practices, by limiting the categories of paths that were studied, in order to explore how different contextual dynamics - systemic, transactional and dispositional (Tilly, 2008) - affected the route they took. The development of more expansive formal theoretical models of leadership will not

necessarily result in less holistic accounts of what leaders do, and the effects of their actions, but it will present evaluators with difficult choices as to how they unravel their own enactment conundrums.

Word count: 7084

References

Aubrey, C. (2011). *Leading and managing in the early years* (2nd edition). London: Sage Publications.

Balkundi, P., & Kilduff, M. (2006). The ties that lead: a social network approach to leadership. *The Leadership Quarterly*, 17, 419- 439.

Ball, S., Maguire, M., & Braun, A. (2012). *How schools do policy: policy enactments in secondary schools*. New York: Routledge.

Beijaard, D. Meijer, P., & Verloop, N. (2004). Reconsidering research on teachers' professional identity. *Teachers and Teacher Education*, 20(2), 107–28.

Borgatti, S.P., Everett, M.G., & Johnson, J.C. (2013). *Analyzing Social Networks*. London: Sage.

Braun, S., Peus, C., Weisweiler, S. & Frey, D. (2012). Transformational leadership, job satisfaction, and team performance: a multilevel mediation model of trust. *The Leadership Quarterly*, 24(1), 270-283.

Breault, R. (2013). Power and perspective: the discourse of professional development school literature. *Asia-Pacific Journal of Teacher Education*, 4(1), 22-35.

- Brouselle, A., & Champagne, F. (2011). Program theory evaluation: Logic analysis. *Evaluation and Programme Planning* 34, 68-78
- Burchinal M.R., Roberts, J.E., Riggins, R., Zeisel, S.A., Neebe, E. & Bryant, D. (2000). Relating quality of center child care to early cognitive and language development longitudinally. *Child Development*, 71, 339–357.
- Bush, T. (2013). Leadership in early childhood education. *Educational Management Administration & Leadership*, 41(1), 3-4.
- Bush, T. & Glover, D. (2014). School leadership models: what do we know? *School Leadership & Management*, 34(5), 553-571.
- Children’s Workforce Development Council (CWDC) (2008). *Early Years Professional Status*. Leeds: Children’s Workforce Development Council.
- Children’s Workforce Development Council (CWDC) (2010). *On the right track: guidance to the standards for the award of Early Years Professional Status*. London: CWDC.
- Clarke, S., & O’Donoghue, T. (2016). Educational leadership and context: a rendering of an inseparable relationship. *British Journal of Educational Studies*, 1-16.
- Clifford, R., & Bryant, D. (2003). *Multi-state study of pre-kindergarten*. Chapel Hill: University of North Carolina.
- Connell, J.P., & Klem, A.M. (2000). You *can* get there from here: using a theory of change approach to plan urban education reform. *Journal of Educational and Psychological Consultation*, 11(1), 93-120.
- Day, C., Elliot, B., & Kingston, A. (2005) Reform standards and teacher identity:

challenges of sustaining commitment. *Teaching and Teacher Education*, 21, 563-77.

Day, C. & Sammons, P. (2013) *Successful Leadership: a review of the international literature*. Reading: CfBT Education Trust.

Day, C., Sammons, P., Hopkins, D., Harris, A., Leithwood, K., Gu, Q., Brown, E., Ahtaridou, E., & Kington, A. (2009). *The impact of school leadership on pupil outcomes, Research Report RR108*. London: DCSF.

Day, C., Gu, Q., & Sammons, P. (2016). The impact of leadership on student outcomes: how successful school leaders use transformational and instructional strategies to make a difference. *Educational Administration Quarterly*, 52(2), 221-258.

Department for Education and Skills (DfES) (2006). *Children's workforce strategy: building a world-class workforce for children, young people and families. The government's response to the consultation*. Nottingham: DfES Publications.

Desimone, L. M. (2009). Improving impact studies of teachers' professional development: toward better conceptualizations and measures. *Educational Researcher*, 38, 181-200.

Donmoyer, R., & Galloway, F. (2010). Reconsidering the utility of case study for research school reform in a neo-scientific era: insights from a multiyear, mixed-methods study. *Educational Administration Quarterly*, 46(1), 3-30.

Fairman, J.C. & Mackenzie, S.V. (2015). How teacher leaders influence others and understand their leadership. *International Journal of Leadership in Education*, 18(1), 61-87.

- Feinstein, L. (2000). *The relative economic importance of academic, psychological and behavioural attributes developed in childhood*. Centre for Economic Performance discussion paper no 443. London: London School of Economics and Political Science.
- Fiedler, F. E. (1964). A contingency model of leadership effectiveness. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (pp. 149-190). New York: Academic Press.
- Finnigan, K., & Daly, A. (2012). Mind the gap: learning, trust, and relationships in an underperforming urban district. *American Journal of Education*, 119(1), 586-618.
- Gronn, P. (2002). Distributed leadership as a unit of analysis. *The Leadership Quarterly*, 13(4), 423-51.
- Gronn, P. (2009). Leadership configurations. *Leadership*, 5(3), 381-394.
- Gronn, P. (2011). Hybrid configurations of leadership. In A. Bryman, D. Collinson, K. Grint, B. Jackson & M. Uhl-Bien (Eds.), *Sage Handbook of Leadership* (pp. 436-454). London: Sage.
- Gunter, H. (2005). Conceptualizing research in school leadership. *Educational Management Administration & Leadership*, 33(2), 165-180.
- Gunter, H. (2016) *An Intellectual History of School Leadership Practice and Research*. London: Bloomsbury.
- Gurr, D., Drysdale, L., & Mulford, B. (2010). Australian Principal instructional leadership: direct and indirect influences. *Magus*, 2, 299-314.
- [References removed for peer-review.]*

Hallinger, P. (2016). Bringing context out of the shadows of leadership. *Educational Management Administration & Leadership*, 1-20.

Hallinger, P., & Heck, R.H. (2011). Conceptual and methodological issues in studying school leadership effects as a reciprocal process. *School Effectiveness and School Improvement*, 22(2), 149–73.

Harris, A. & DeFlaminis, J. (2016). Distributed leadership in practice: evidence, misconceptions and possibilities. *Management in Education*, 30(4), 141-146.

Heck, R.H., & Hallinger, P. (2010a). Collaborative leadership effects on school improvement. *The Elementary School Journal*, 11(2), 226–252.

Heck, R.H., & Hallinger, P. (2010b). Testing a longitudinal model of distributed leadership effects on school improvement. *The Leadership Quarterly*, 21, 867-885.

Higham, R., Hopkins, D., & Matthews, P. (2009). *System leadership in practice*. Maidenhead: Open University Press.

Hill, H. Beisiegel, M., & Jacob, R. (2015). Professional development research: consensus, crossroads, and challenges. *Educational Researcher*, 42(9), 476-487.

Hiller, N. J., Day, D. V., & Vance, R. J. (2006). Collective enactment of leadership roles and team effectiveness: a field study. *The Leadership Quarterly*, 17(4), 387-397.

Hillman, J., & Williams, T. (2015). *Early years education and care: lessons from evidence and future priorities*. London: Nuffield Foundation.

Hoppe, B., & Reinelt, C. (2010). Social network analysis and the evaluation of leadership networks. *The Leadership Quarterly*, 21, 600-619.

Hunter S., Bedell-Avers K., & Mumford M. (2007). The typical leadership study: assumptions, implications, and potential remedies. *The Leadership Quarterly*, 18(5), 435-446.

Jolley, G. (2014). Evaluating complex community-based health promotion: addressing the challenges, *Evaluation and program planning*, 45, 71-81.

Lawler, S. (2002) Narrative in social research. In T. May (Ed.) *Qualitative research in action*. (pp. 242–258). London: Sage.

Leithwood, K., Patten, S., & Jantzi, D. (2010). Testing a conception of how school leadership influences student learning. *Educational Administration Quarterly*, 46(5), 671-706.

Leithwood, K., & Levin, B. (2005). *Assessing school leader and leadership programme effects on pupil learning*, Research Report RR662. London: Department for Education and Skills.

Lichtenstein, B.B., Uhl-Bien, M., Marion, R., Seers, A., & Orton, J.D. (2006).

Complexity leadership theory: an interactive perspective on leading in complex adaptive systems. *Emergence: Complexity & Organization*, 8(4), 2-12.

Ling, T. (2012). Evaluating complex and unfolding interventions in real time. *Evaluation*, 18(1), 79-91.

Mathers, S., Ranns, H., Karemaker, A.M., Moody, A., Sylva, K., Graham, J., & Siraj-Blatchford, I. (2011). *Evaluation of Graduate Leader Fund: final report*. London: Department for Education.

- Mathers, S., & Sylva, K. (2007). *National evaluation of the Neighbourhood Nurseries Initiative: the relationship between quality and children's behavioural development, Research Report SSU/2007/FR/022*. London: Department for Education and Skills.
- McGillivray, G. (2011). Constructions of professional identity. In L. Miller & C. Cable (Eds.), *Professionalization, leadership and management in the early years* (pp. 93-106). London: Sage.
- McLinden, D. (2013). Concept maps as network data: Analysis of a concept map using the methods of social network analysis. *Evaluation and Program Planning, 36*, 40-48.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. Thousand Oaks, CA: Sage.
- Minckler, C.H. (2014). School leadership that builds teacher social capital. *Educational Management Administration & Leadership, 42*(5), 657–679.
- Miškolci J. (2017). Contradictions in practising distributed leadership in public primary schools in New South Wales (Australia) and Slovakia. *School Leadership & Management, 37*(3), 234-253.
- Mjoset, L. (2013). The contextualist approach to social science methodology. In D. Byrne. & C.C. Ragin. (Eds.) *The Sage handbook of case-based methods* (pp. 39-68). London: Sage.
- Moolenaar, N.M. (2012). A social network perspective on teacher collaboration in schools: theory, methodology and applications. *American Journal of Education, 199*(1), 7-39.

- Mooney, A. (2007). *Effectiveness of Quality Improvement Programmes*. London: Thomas Coram Research Unit and Institute of Education, University of London.
- Muijs, D. (2011). Researching leadership: towards a new paradigm. In T. Townsend & J. MacBeath (Eds.), *International Handbook of Leadership for Learning* (pp. 115-126). New York: Springer.
- Muijs, D., & Harris, A. (2003). Teacher leadership – improvement through empowerment? An overview of the literature. *Educational Management and Administration, 31*(4), 437–448.
- NICHD Early Child Care Research Network (2002). Early child care and children’s development prior to school entry: results from the NICHD Study of Early Child Care. *American Educational Research Journal, 39*, 133–64.
- Pascal, C., & Bertram, T. (1997). *Effective early learning: case studies in improvement*. London: Hodder & Stoughton.
- Patton, M. Q. (2011). *Developmental evaluation: applying complexity concepts to enhance innovation and use*. New York: Guilford Press.
- Pawson, R., & Tilly, N. (1997). *Realist evaluation*. London: Sage.
- Peisner-Feinberg, E. S., & Burchinal, M. R. (1997). Relations between preschool children's child-care experiences and concurrent development: The Cost, Quality, and Outcomes Study. *Journal of Developmental Psychology, 43*, 451-477.
- Penuel, W. R., Riel, M., Frank, K. A., & Krause, A. (2009). Analysing teachers’ professional interactions in a school as social capital: a social network approach. *Teachers College Record, 11*(1), 124-163.

- Penuel, W.R., Sussex, W., Korbak, C., & Hoadley, C. (2006). Investigating the potential of using social network analysis in educational evaluation. *American Journal of Evaluation, 27*, 437-451.
- Pitner, N. (1988). The study of administrator effects and effectiveness. In N. Boyan (Ed.) *Handbook of research in educational administration* (pp. 99-122). New York, NY: Longman.
- Robinson, V.M.J. (2007). *School leadership and student outcomes: Identifying what works and why* (ACEL Monograph Series 41). Winmalee, NSW: Australian Council for Educational Leaders.
- Rosen, R. (1991). Some epistemological issues in physics and biology. In B. Hilley and F. Peat (Eds.), *Quantum implications: essays in honor of David Bohm* (pp. 314-327). London: Routledge.
- Scott, W.R. (1981). *Organizations: rational, natural, and open systems*. Englewood Cliffs NJ: Prentice Hall Inc.
- Siraj-Blatchford, I., Sylva, K., Muttock, S., Gilden, R., & Bell, D. (2002). *Researching effective pedagogy in the early years (REPEY), Research Report RR356*. London: DfES.
- Spillane, J. (2006) *Distributed leadership*. San Francisco: Jossey-Bass.
- Spillane, J., Hallett, T., & Diamond, J.B. (2003). Forms of capital and the construction of leadership: instructional leadership in urban elementary schools. *Sociology of Education, 76*(1), 1-17.
- Spillane, J.P. & Kim, C.M. (2012). An exploratory analysis of formal school leaders' positioning in instructional advice and information networks in elementary schools.

American Journal of Education, 119(1), 73-102.

Stoelinga, S. R. (2008). Leading from above and below: formal and informal teacher leadership. In M. M. Mangin & S. R. Stoelinga (Eds.), *Effective teacher leadership: using research to inform and reform* (pp. 99–119). New York, NY: Teachers College Press.

Sylva, K. (1994). School influences on children's development, *Child Psychology and Psychiatry*, 35(1), 135–70.

Sylva, K., Melhuish, E., Sammons, P., Siraj-Blatchford, I., & Taggart, B. (2004). *The effective provision of pre-school education (EPPE Project: Effective Pre-School Education Technical Paper 12)*. London: DfE/Institute of Education, University of London.

Tilly, C. (2008). *Explaining social processes*. London: Routledge.

Wenner, J.A., & Campbell, T. (2017). The theoretical and empirical basis of teacher leadership: a review of the literature. *Review of Educational Research*, 87(1), 134-171.

York-Barr, J., & Duke, K. (2004). What do we know about teacher leadership? Findings from two decades of scholarship. *Review of Educational Research*, 74(3), 255–316.

Yukl, G. A. (2002). *Leadership in organisations*, Fifth Edition, New Jersey: Prentice-Hall.

Yukl, G.A. (2009). Leadership and organizational learning: an evaluative essay. *The Leadership Quarterly*, 20(1), 49-53.