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Exploring the Links between Leadership and Improvement in the UK National Health Service

by

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**A thesis submitted in partial fulfilment of the requirements for
the degree of Doctor of Philosophy in Health Sciences**

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Student Declaration

The author confirms that this thesis has not been submitted for a degree at another university. The thesis is the author's own work. The research on which the thesis is based was a wider piece of collaborative research, involving four other colleagues, Mr Hugh Flanagan, Mr Robert Cragg, Professor Peter Spurgeon and Dr Jonathan Shapiro. The aspects of the study covered in the thesis are all areas where the author had primary and extensive involvement. For these aspects, the author was the lead qualitative researcher, and the primary contributor to the theoretical framing of the study, the methodology design, the data analysis, the data interpretation and the discussion and implications.

Some aspects of the material contained in this thesis have been previously used by the author in a report to The Health Foundation, the organisation which funded the research study on which the thesis is based (Hardacre et al. 2010). During the writing of this thesis, one paper has been published based on the material (Hardacre et al. 2010a).

Abstract

Whilst the need for leadership in healthcare is well-recognised, there is still a lack of understanding about how leadership contributes to improving healthcare services. The body of knowledge concerning improvement has grown significantly in recent years, but evidence about links between leadership and health services improvement remains poor, especially within the UK National Health Service. It remains unclear how and why leadership is important to service improvement.

This thesis describes aspects of a broader study commissioned by The Health Foundation. Firstly, the work aimed to explore the extent to which different types of service improvement require different types of leadership behaviour. Secondly, it aimed to investigate the nature of any links between leadership behaviour and improving services. The work draws on theoretical models and concepts of leadership and improvement in the literature, as well as empirical research in these areas. A typology of healthcare improvement was developed in order to classify different types of improvement work. Data about leadership behaviours were derived from semi-structured interviews and using Q-Sort methodology.

The study provides insights into which aspects of leadership are used for different types of improvement work. It makes an original and NHS-specific contribution to the literature, providing empirical evidence of how NHS leadership is associated with service improvement. Results highlight the importance of the relational aspects of leadership behaviour in improving NHS services, reinforcing trends in the literature which promote shared and distributed leadership approaches. A model of improvement leadership is proposed, based on the concept of 'interdependence'. This model could provide the basis for an alternative emphasis in developing leadership in healthcare organisations, away from teaching skills to individuals, towards a collective, team-based approach to leading services with a shared purpose.

Abbreviations

BPR	Business Process Reengineering
CQI	Continuous Quality Improvement
CHI	Commission for Healthcare Improvement
EFQM	European Foundation for Quality Management
FLP	Focus, Level, Process (dimensions on the Healthcare Improvement Typology)
FLPI	Focus, Level, Process, Intended Impact (dimensions on the Healthcare Improvement Typology)
IHI	Institute for Healthcare Improvement
IOM	Institute of Medicine
IQL	Indicators of Quality Leadership
ITM	Improvement Type Measure
LMX	Leader-Member Exchange
LPC	Least Preferred Co-worker
LPI	Leadership Practices Inventory
LQF	Leadership Qualities Framework
MLQ	Multi-factor Leadership Questionnaire
NHS	National Health Service
PDSA	Plan-Do-Study-Act
QEI	Quality Enhancing Interventions
QI	Quality Improvement
QQIP	Quest for Quality and Improved Performance
SSI	Semi-structured Interview
THF	The Health Foundation
TQI	Total Quality Improvement
TQM	Total Quality Management
VAS	Visual Analogue Scale

CHAPTER 1 BACKGROUND AND CONTEXT

1.1 Introduction

In December 2007, The Health Foundation (THF) commissioned the author, as part of a wider research team, to undertake an in-depth evaluation of its Leadership Programme. This initial chapter explains how and why this evolved into the specific study described in this thesis. It provides the background to the study, outlines the scope of the work and describes the policy context for the work.

1.2 Background

Developing leaders to improve healthcare is one of The Health Foundation's five strategic areas for investment. The Leadership Programme which was in place at the time of the study consisted of several leadership development schemes, was viewed by THF as experimental in nature, and had emerged over the lifetime of the organisation.

A detailed internal evaluation of the leadership schemes had been undertaken earlier in 2007 (The Health Foundation 2007). This investigated the experience of participants on the leadership schemes, and provided some data on which to make decisions about re-shaping the design of schemes. However, THF made the judgement that a more extensive piece of evaluative research was required to address some wider questions which were of relevance to their Leadership Programme.

The Health Foundation wanted to use its considerable experience of supporting several cohorts of leaders through leadership development schemes, as a basis for deepening their understanding of how leadership development affects leadership behaviour and impacts on improving health services. This was of particular interest, given the conclusion of the internal evaluation report (ibid):

‘The Leadership Programme would benefit from a clearer articulation of the relationship between leadership development and quality improvement within which to frame the growing body of evidence being generated.’(p.8)

1.3 Parameters of the Funded Study

At the outset of the funded study, there was a formal ‘inception’ period, during which the research team worked with THF colleagues to clearly define and refine the parameters of the study. This involved clarifying how an evaluation of THF’s leadership schemes could go beyond a conventional approach and add to the THF’s understanding of how developing leaders can impact on improving health services. A literature review, outlined below, was undertaken by the author as part of this inception stage.

This pre-work involved the research team, key THF staff, Professor John Ovretveit and the late Professor Bob Sang, as THF expert advisers. It resulted in a clarification of the emphasis in the study. While the effectiveness of the THF leadership schemes remained a key line of inquiry, there was an agreement to address three core research

questions. These broadened the study to encompass wider considerations of the links between leadership in action and its impact on improving health services. The three research questions were:

- 1 What is the nature of any links between service improvement and leadership behaviour in the NHS?
- 2 Do different types of improvement require different 'leadership' behaviours?
- 3 What are the lessons for leadership development generally and for The Health Foundation specifically?

In exploring these questions, the intended outcomes of the study were identified as:

- 1 Developing an approach to measure and classify different 'types' of improvement work;
- 2 Identifying leadership behaviours associated with improvement work;
- 3 Providing THF with specific data about perceptions of effectiveness of their existing leadership schemes;
- 4 Furthering understanding about the extent to which leading improvement can be attributed to leadership development;
- 5 Distilling lessons for the design and delivery of leadership development focused on improvement.

1.4 Scope of the Thesis

Within the broader funded study, the author's primary contributions centred on undertaking the literature review and as lead researcher in respect of the first two of the emerging research questions, namely:

- Do different types of service improvement require different 'leadership' behaviours?
- What is the nature of any links between improving services and leadership behaviour?

Whilst the author was involved in all other aspects of the funded study, the two identified here were her prime areas of research focus, and this thesis is therefore limited to these two aspects of the study. The process by which these research questions emerged from the existing literature and evidence base is detailed in Chapter 4.

1.5 Context for the Study

During the New Labour era, from 1997 – 2010, the policy context was characterised by:

- Removal of the 'purchaser-provider' split
- National standards of treatment
- A programme of 'modernisation'
- National clinical guidelines

- External assessment of clinical and organisational performance
- Key performance indicators and targets
- 'Micro-management' and a 'command and control' approach by government

Against this background, the levels of investment into the NHS were unprecedented. In 1997, health spending amounted to 5.3% of the UK gross domestic product, having been between 4-5% throughout the 1970s and 1980s. By 2008/9, the proportion had risen to 7.7%, with further increases planned. (O'Brien 2009) The focus on improving the NHS was indisputable. Whilst the means of achieving such improvement varied in emphasis over the decade in question, one of the core themes underpinning the era was the oft-stated belief that enhancing leadership would play a large part in improving services. For example, the NHS Plan (Department of Health 2000), which outlined the new policy direction in July 2000 stated,

'Delivering the Plan's radical change programme will require first class leaders at all levels of the NHS.'(p.86)

By the end of the Blair administration, this theme was still embedded in policy documents, and featured strongly in Lord Darzi's Next Stage review of the NHS (Department of Health 2008):

'All these steps together create the right environment for high quality care to happen, but we need to further develop clinical and managerial leadership'. (p.61)

Alongside the policy rhetoric emphasising the role of leadership in improving the NHS, many initiatives were launched to support this, including the NHS Leadership Centre, the development of the NHS Leadership Qualities Framework to assess and benchmark leadership, and latterly the establishment of the National Leadership Council, intended to oversee the leadership aspects of Lord Darzi's review.

However, during the period in question, it would appear that very little empirical research was carried out to better understand the nature of the implicit and rhetorical link between leadership and improved services. There is reference in Lord Darzi's final report (ibid) to '*our new approach to leadership for quality*' (p.65), but this is limited to identifying the core elements of any approach to leadership as Vision, Method and Expectations.

Furthermore, despite the focus in dozens of NHS policy documents of the New Labour era on the importance of leadership, and the associated significant investment made in leadership development, Lord Darzi concludes that,

'Leadership has been the neglected element of the reforms of recent years. That must now change.' (p.66)

What this means is not entirely clear; in what way does he perceive leadership to have been neglected? Some have suggested that the programmatic, top-down style of managing the improvements quashed the scope for leadership initiative to flourish (Hardacre and Keep 2005). Others lament the perceived short-termism of a government with a clear mandate, which could have afforded to take the longer view. One can speculate about the meaning and intentions of the policy and rhetoric about

leadership at this stage in the development of the NHS, but it would seem that leadership was being viewed, to some extent, as '*a catch-all and a panacea*' (Storey 2004, p.5), without any clarity as to how or why it was deemed worthy of such high expectations.

It could be argued that the policy and economic context between 2000 -2010 provided fertile ground for the NHS to gain a deep, evidenced and applied understanding of how leadership is linked to improving services. And yet despite the widespread belief that they exist, these links remain opaque.

The intention behind this thesis was to examine these links in detail and to contribute to building a fuller and more robust understanding of how leadership is associated with improving NHS services.

CHAPTER 2 THEORETICAL FRAMEWORK

2.1 Introduction

The change management literature is so wide-ranging that it begs the question of where to start in searching for evidence which would usefully frame this study. As an illustration of this, By (2007) provides a critical review of change management theories and approaches, concluding that,

‘what is currently available is a wide range of contradictory and confusing theories and approaches, which are mostly lacking empirical evidence and often based on unchallenged hypotheses regarding the nature of contemporary organisational change management.’ (p.378)

A similar point is made by Guimares & Armstrong (1998), who conclude from their study into change management effectiveness that despite a growing generic literature emphasising the importance of change and suggesting ways to approach it, these theories are not generally empirically supported.

Given the breadth and variation in the change management literature, the author decided to shape the theoretical framework for this study around literature specifically addressing the two key aspects of the study, namely leadership and improvement.

Accordingly, this chapter considers key theories and models from the leadership literature, and considers how these may be of relevance to the thesis. A similar analysis is then presented with respect to the improvement literature, summarising

the extent to which links can be seen between improvement theory and leadership theory. This provides a broad theoretical framework for the study, within which a more focused literature review, described in Chapter 3, is undertaken.

2.2 A Theoretical Overview : The Leadership Literature

The evolution of leadership theory has been narrated many times, with different levels of depth. Usually described in a chronological manner, such accounts typically start with 'trait theory', then move from behavioural and style-related theories to transactional and transformational models, encompassing situational, contingency and variations of these conceptualisations along the way (eg. Yukl, 2006; Grint 2007). Some texts consider these leadership models specifically within the context of NHS leadership. (Hardacre (2000); Davidson & Peck (2005); Hartley & Benington (2010)). The intention of this section is not to rehearse the details of the leadership models and theories, but to consider them with particular reference to the research questions of this study, and in terms of what they offer as a theoretical framework for the contemporary challenge of leading improvement in the NHS. Specifically, to what extent do these models shed light on what the links might be between leadership and service improvement?

This section outlines the main leadership theories and concepts from the literature, considers their relative strengths and weaknesses and considers the extent to which they provide a theoretical framework for the study.

2.2.1 Trait theory

The earliest conceptualisation of leadership, whereby an individual's innate attributes, physique and personality are seen as core to his or her leadership effectiveness, has been a core part of leadership studies since early in the 20th century. Indeed, whilst it has its critics, it could be argued that this model of leadership is the most evidence-based of them all. Northouse (2010) observes that,

'The strength and longevity of this line of research give the trait approach a measure of credibility that other approaches lack.' (p25)

This section summarises the evidence-base for the trait model of leadership and considers its relative strengths and weaknesses, then discusses how the model may be relevant in understanding how leadership might contribute to service improvement.

Despite the decades of study and research into the trait approach to leadership, there is no definitive, evidence-based list of leadership traits which reliably emerges from the studies in this area. Such lists have become so extensive that they have arguably lost their impact or utility. Table 1 shows some examples of key studies which have attempted to identify leadership traits.

Table 1. *Key Studies of Leadership Traits*

Stodgill (1948)	Mann (1959)	Stodgill (1974)	Lord, DeVader & Alliger (1986)	Kirkpatrick & Locke (1991)	Zaccaro, Kemp & Bader (2004)
Intelligence Alertness Insight Responsibility Initiative Persistence Self-Confidence Sociability	Intelligence Masculinity Adjustment Dominance Extraversion Conservatism	Achievement Persistence Insight Initiative Self-confidence Responsibility Cooperative- ness Tolerance Influence Sociability	Intelligence Masculinity Dominance	Drive Motivation Integrity Confidence Cognitive Ability Task Knowledge	Cognitive Abilities Extraversion Conscientiousness Emotional stability Openness Agreeableness Motivation Social Intelligence Self-monitoring Emotional Intelligence Problem-Solving

Source: Northouse (2010)

The usefulness of varied lists of traits, albeit those derived from robust research, is questionable when used in isolation. For instance, do such lists imply that all applicants for leadership posts need to be assessed for these traits? If so, what benchmark should be applied to determine which individuals possess sufficient of the traits to be deemed a leader? Can the lists be used generically for all leadership situations, or would the traits differ in a range of contexts? These are some of the many questions which limit the application of identified sets of leadership traits to real-life settings.

In discussing the relevance of trait theory to improvement leadership, it is pertinent to consider evidence of any association which may exist between personality and leadership generally. A significant study published in 2002 suggested that certain

personality traits are associated with being perceived as an effective leader. Judge, Bono et al (2002) undertook a major meta-analysis of 78 personality and leadership studies published between 1967 and 1998. They used the 'Big Five' factors of personality, which have emerged from psychology research as being the generally agreed most basic factors which make up personality, namely Neuroticism, Extraversion, Openness, Agreeableness and Conscientiousness (McCrae & Costa 1987). In this study, extraversion was most strongly associated with leadership, followed by conscientiousness, openness and low neuroticism. The agreeableness factor was weakly associated with leadership.

The current evidence base would suggest that having certain personality traits is associated with being perceived as an effective leader. In their review of the importance of leadership traits, Kirkpatrick and Locke (1991) state,

'Regardless of whether leaders are born or made or some combination of both, it is unequivocally clear that leaders are not like other people. Leaders do not have to be great men or women by being intellectual geniuses or omniscient prophets to succeed, but they do need to have the "right stuff" and this stuff is not equally present in all people.' (p.59)

Such endorsements of the trait approach to leadership mirror the apparent popular need for people to perceive their leaders as in some way 'special people'. The 'Obama' factor, manifestly evident during the 2008 presidential election in the USA, included much media-led debate about the special characteristics of Barack Obama, tracing when and how these became apparent during his formative years. Combined with

research evidence, this type of belief in the importance of personality in leadership does serve to strengthen the face validity of the model. In this respect, it is noteworthy that the notion of 'a hero leader', who can individually exert disproportionate influence over a group of people, remains resolutely embedded in contemporary UK government policy. This is evident, for example, in what Buchanan et al (2007) refer to as 'trait-spotting' (p.249) at the heart of the NHS Leadership Qualities Framework, which provides the basis for all general leadership development in the NHS (having in 2011 been superseded by an updated version). It is also apparent in a continual political reliance on replacing the Chief Executive of an NHS organisation in order to improve the performance of a 'failing' organisation (although the political symbolism of such a decision also plays a part in this trend).

Alongside some of the positive aspects of the trait approach, some significant weaknesses are also evident. One of its most obvious weaknesses is that traits are believed to be born and innate (Stodgill 1974), raising largely unanswered questions about the impact of key influences such as life experience, nurture, socialisation and personal development. There is a lack of consensus emerging from the literature about which characteristics are most important for leaders to possess. In addition, critics of the approach express concern about the subjective nature of assessing for personality (notwithstanding the use of objective selection tools and measures), and the attendant risk of trait-based selection leading to a lack of diversity in the leadership workforce. This links to a further unresolved issue associated with the trait approach, namely its implications for the participation, design and delivery of leadership development.

When considering leadership for service improvement specifically, there are two major weaknesses in the trait approach. Firstly, it does not take into account the relationship between leadership traits and organisational outcomes. The deliberate focus of this research study on leading service improvement lends it a specificity which is not evident in the leadership trait literature. From the significant body of leadership research based on the trait approach, very little of it addresses issues such as the effect of leadership traits on other people, on teams, on productivity or performance (Northouse 2010). Uncertainty therefore remains about whether leaders with identified leadership traits achieve better results than others.

A pertinent gap in what the trait leadership model offers to this study is its failure to consider the context of a situation requiring leadership. Early on in leadership studies, Stodgill (1948) recognised that people who may possess the wherewithal to lead in certain situations may not perform equally well in other contexts or scenarios. This threw into doubt the academic quest to identify a universal set of leadership traits which would be relevant to all situations. Within the realm of improving NHS services, the context can vary enormously, and this research study specifically intended to investigate the links between leadership and different types (and contexts) of improvement. It appears that the trait theory of leadership and the researchers active in this field have not, so far, addressed questions of context. Contingency theories of leadership, which developed later, take into account the question of leadership context. Leadership research into such contingency models, will be considered later in this chapter.

2.2.2 Leadership Skills

In a move away from the personality-based trait model of leadership, research during the 1950s focused on what the leader does rather than who they are, leading to an interest in the abilities, competencies and skills of the leader. A significant difference in this way of thinking is that while personality characteristics are innate, skills can be developed, suggesting that, to some extent, leadership can be learnt.

Katz's work observing 'administrators' in the workplace was the basis for early studies into leadership skills. Katz suggested that effective leadership (articulated as administration at the time) required three sets of skills: technical, personal and conceptual. These are largely self-explanatory, with the technical having a focus on using specific tools and techniques; personal focusing on skills with people and relationships; and conceptual emphasising the ability to work with ideas and concepts. (Katz 1955)

Katz's work suggested that at lower management levels, the technical and human skills were more important than the conceptual skills. In middle management, all three areas were important, and in more senior management roles, the human and conceptual skills were more important than the technical skills.

There is a relative lack of literature exploring skills-based leadership, when compared with other leadership concepts. Given its emphasis on developing skills rather than relying on innate personality factors, it is perhaps not surprising that the skills approach is evident in leadership development activities across organisational sectors

and management levels. However, in terms of robust research data about how the model applies to leading organisations, there are significant gaps.

One large-scale leadership study which was underpinned by a skills approach researched 1800 officers in the US Army in an attempt to devise and test a theory of leadership. (Mumford, Zaccaro et al, 2000) This led to the development of a complex skills model of leadership, comprising individual attributes, competencies, leadership outcomes and environmental influences in an attempt to explain associations between a leader's skills and knowledge and effective leadership performance. Whilst termed a skills model, some of the aspects were broader than skills alone, and the resultant model arguably loses resonance due to its complicated, multi-factorial nature.

Nevertheless, the Mumford, Zaccaro et al. study (ibid) suggests that leadership outcomes result directly from a leader's competencies, encompassing a wide range of skills and abilities, and taking into account several external factors. For this thesis, with its focus on associations between leadership, behaviours and outcomes, it will be interesting to consider how any findings connect with previous work on the skills model of leadership.

2.2.3 Style Theory

This leadership concept focuses not on who the leader is (traits) or what they are capable of (skills), but what they do and how they behave. The two categories of behaviour which consistently emerge from research in this area are task behaviours, giving priority to getting the job done, and relationship behaviours, which emphasise the way people working on the task relate to each other in fulfilling the task. Task and

relationship behaviours combine in a range of ways into different leadership 'styles', and research in this area explored which combination proved to be an optimal one.

The classic studies into leadership style took place during the late 1950s and early 1960s, and aimed to explain the behavioural underpinning of leadership effectiveness. (Hemphill & Coons 1957; Blake and Mouton 1964; Bowers & Seashore 1966;). In particular, Blake & Mouton's Managerial Grid (1964) became widely used in organisations, with its five categories or styles of leadership representing different combinations of task and employee-centredness. There were initial disagreements about whether the task and relationship orientation of leaders were mutually exclusive, but the literature latterly recognised that the two dimensions are independent of one another, and may be evident in a range of different combinations.

Whilst the basic tenets of the style model of leadership have remained embedded in leadership thinking and leadership development over the years, it could be argued that the concept has not developed much beyond the initial insights gained from the seminal studies referred to above. In particular, there remains a gap in understanding how leadership styles are associated with performance outcomes, such as morale, employee motivation, productivity and profitability. Having considered the wide range of research in this field, Yukl (1997) concluded that there were few consistent conclusions about the findings.

The main aim of researchers in the area of leadership style was to uncover the universal behaviours that are associated with effective leadership. This was not achieved, partly due to the inconsistencies in findings. As discussed above, the quest

to find a single best approach to leadership has also proved fruitless so far in relation to trait and skills models of leadership. As a consequence, research moved to considering alternative ways of making sense of leadership, which acknowledged that different leadership may be needed in different situations. These approaches are outlined in the next section.

In terms of relevance to this thesis, the behavioural focus of the leadership style model is of particular interest. However, despite its focus on the actions of leaders, there appears to be surprisingly little detailed exploration in the literature of the actual behaviours used by leaders to achieve certain outcomes. Beyond broad descriptions of leadership style, there would appear to be significant scope for researching more about exactly which leadership behaviours are linked with different outcomes, and a consideration of why.

2.2.4 Contextual Models of Leadership

Whereas the trait, skills and style concepts of leadership focus on individual leaders, contingency theories of leadership view the leader in relation to those being led, and to the task being achieved. They can therefore be considered as models of leadership which are more contextualised than the previously-discussed approaches. The next sections summarise the evidence-base for three contingency models of leadership (situational; contingency and path-goal theories) and consider their relative strengths and weaknesses, then discuss how the models may be relevant in understanding how leadership might contribute to service improvement.

The situational and contingency approaches to leadership are separate and distinct in their theoretical detail, but they were developed contemporaneously in the mid to late 1960s, and show similarities in their underlying assumptions. The focus of both models is on analysing factors present in the situation where leadership occurs, on the basis that understanding the situation in more detail makes it possible to apply relevant and appropriate leadership. Both the approaches acknowledge the importance of the individual leader, and build on the notion of leadership 'style' (Reddin 1967). Implicit within this idea is the assumption that a leader may adopt a range of different leadership styles, depending on the situation requiring leadership.

2.2.5 Situational Leadership

The situational approach to leadership, developed by Hersey and Blanchard (1969), has its focus on the leader diagnosing the nature of their employees and adapting his or her style to match the 'competence' and 'commitment' of those they are leading. The theory offers a diagnostic framework for leaders to assess the needs of their employees on two dimensions : support and direction. The model is comprised of four quadrants, representing whether the employee's needs on these dimensions are high or low. Each quadrant has a related leadership style, deemed to be most appropriate in each circumstance (directing, coaching, supporting and delegating). These consist of different combinations of these factors, e.g. high support, low direction. The appropriate style may vary with a single employee as their own competence and commitment changes.

Situational leadership is a very practical model and therein lies a key attraction for practising leaders. Its credibility is evident through its extensive use in industry and commerce (Hersey and Blanchard 1993) and may be attributed to its prescriptive nature, which could be perceived as reassuringly simple for leaders facing organisational complexities. The idea that leaders can alter their style and approach to deal effectively with any employee is an alluring one. However, the stability of personality traits over time and thus the strong style preferences among leaders, might suggest that such adaptability and flexibility is far from easy to achieve. However, this contradiction is not addressed within the model itself. Indeed, when the situational model is scrutinised from an academic perspective rather than as a pragmatic leadership development approach, its robustness is called into question. As Northouse (2010) points out,

‘The lack of a strong body of research on situational leadership raises questions about the theoretical basis of the approach.’(p.95)

Other criticisms of the situational approach include those relating to the reliability of the key concepts of employee commitment and competence (Graeff 1997) and the validity of the prescriptive categories in the model (Vecchio 1987; Fernandez & Vecchio 1997; Vecchio et al 2006). At a pragmatic level, the transferability of the theory from 1:1 leadership relationships to group leadership is untested; the implicit hierarchical relationship between leader and subordinate arguably no longer reflects organisational reality in the 21st century and contextual factors beyond those relating to subordinates are largely disregarded in the model.

Most significantly in respect of this thesis and study, the situational leadership literature appears to offer no evidence that applying the approach affects the outcome of the leadership task. Hence, situational leadership does not appear to offer any particularly pertinent insights into how leadership might be associated with improving NHS services.

2.2.6 Contingency Leadership Theory

Fiedler's contingency theory (Fiedler 1967) is what is known as a 'leader-match' theory, emphasising the importance of matching a leader's style with the nature of a situation requiring leadership. The factors taken into account in the situation encompass more aspects than those in situational leadership. The relationship between leader and follower is one of the factors in the contingency approach, termed leader-member relations. In addition, task structure and position power are also key aspects of the situation which are considered. These three variables are each rated as Good or Poor in relation to any leadership situation, and together they determine the overall favourableness of a situation from a leader's point of view. One aspect of the contingency theory is therefore determining the nature of the situation on these dimensions.

The other aspect of the theory involves assessing the leader's style using the LPC (Least Preferred Co-worker) questionnaire developed by Fiedler et al (1984) to determine whether a leader is more task-motivated or people-motivated. Contingency theory outlines which type of leader is best suited to different types of situation, and offers a framework to highlight that leaders showing certain LPC profiles are better suited to some situations than others.

Unlike the situational approach, contingency theory has a solid research base (Strube & Garcia 1981), testing its validity and reliability in explaining how effective leadership can be achieved. In terms of its utility, it has strengths in acknowledging that people should not be expected to be effective leaders in all situations, and that organisations need to consider placing leaders in situations which are optimal for their style. This is commonsensical, even if its realistic application to organisational life may be challenging.

The notion that task-centred leaders are more effective in extreme situations and relationship-centred leaders are better in more moderate circumstances underpins contingency theory. Explanations of why this is the case are key, but remain opaque. Moreover, the combination of factors leading to a situation being assessed as extreme or moderate is arguably over-simplistic, using only the categories of Good and Poor, when most organisational phenomena would be more realistically defined through a more sophisticated categorisation.

Other criticisms of contingency theory relate to its reliance on extensive test-taking to gain insights; the design and face-validity of those tests, which are perception-based; and the lack of clarity about how organisations should deal with a mismatch of leader and situation. As a personality-based theory, the implication is that the situation should be changed rather than the leader taught how to deal with situations beyond his or her ideal.

Despite the limitations outlined, contingency theory has been pivotal in leadership literature by acknowledging and, to some extent, evidencing the importance of context to leadership effectiveness. As a theory, it potentially has insights to offer a study such as the one in this thesis. The hypothesis within the theory is that different

leadership styles suit different leadership situations. This links to the research question exploring whether different types of service improvement are associated with different leadership behaviours. It will be pertinent to return to consider this at the end of the study to reflect on the extent to which the study findings are resonant or dissonant with contingency theory of leadership.

2.2.7 Path-Goal Theory

In the path-goal theory of leadership, the style adopted by the leader is contingent on the characteristics of both the 'subordinate' and the task. Its principles are based on expectancy theory, suggesting that employees are motivated to do a task if they are led in a way which makes them feel able to achieve their objectives, adequately rewarded and that their efforts will be worthwhile. Like other contingency models of leadership, path-goal theory focuses on the leader choosing an appropriate style according to the factors deemed to be key. In this case, the styles are termed directive; supportive; participative and achievement-oriented, and are all based on responding to the perceived needs of the employee and the nature of the task they need to complete. According to Northouse (2010), the focus of this theory on employee motivation makes it unique.

In relation to the study of this thesis, the premise on which path-goal theory is based would suggest that any links between leadership and improvement would be associated with the way in which employees are motivated. However, evidence of exactly why adopting certain leadership styles might be effective for certain types of employees is not clear from the theory, and research findings into the model are

inconsistent. (Northouse 2010). Its narrow focus on the motivation of employees disregards other potentially relevant contextual factors. In addition, the extent to which the employee feels competent and rewarded are arguably subject to many extraneous factors beyond the individual leader's sphere of influence.

2.2.8 Leader-Member Exchange Theory

The interactions between leaders and followers are the key concept underpinning the Leader-Member Exchange theory of leadership, with a premise that a leader deals with each follower in a different way. Early research in this area led to the notion of some followers falling into either a favoured, mutually-beneficial relationship with the leader (the 'in-group') or into a relationship based on the formal hierarchical roles, expectations and boundaries of the employment contract (the 'out-group'). This rather polarised and arguably simplistic analysis was further shaped by research into how organisational performance is affected by leader-member exchanges. Findings indicate that good leader-member exchanges are associated with lower employee turnover, more frequent promotions, higher levels of commitment to the organisation, better individual performance evaluations, more enjoyable work, more positive attitudes to work and more attention and support from the leader. (Graen & Uhl-Bien 1991; Liden et al 1993). In terms of organisational outcomes, there is recent evidence of more creativity among staff with good relationships with their leader (Atwater and Carmeli 2009) and, when combined with empowerment factors, better job outcomes (Harris et al, 2009). Overall, such studies provide some evidence that when relationships

between leaders and followers are good, both parties are more positive and achieve more, leading to better outcomes for the organisation.

Some of the criticism of the Leader-Member Exchange theory centres on its inherent inequity, and the way it could be seen as legitimising the favouring of some employees over others. Indeed, McClane (1991) has reported that there are potentially damaging effects on a wider group if it contains both 'in-groups' and 'out-groups'. However, this is countered by an argument proposing that LMX theory merely explains a sociological phenomenon which is present and evident in most organisations.

In practical terms, one of the pertinent questions about this leadership model relates to how high-quality leader-member exchanges are developed in the workplace. Ideas in the literature include on the one hand considerations of compatible personalities, skill-sets and communication styles among particular people, and on the other hand the importance of trust, respect and commitment in all leader-follower relationships. Despite much research on the LMX theory, a clear set of conclusions remains lacking, and questions over the validity of LMX measures and the comparability of data from different studies mean that there is more exploration to do in clarifying the precise contribution of the model to leadership theory and practice.

More research findings are needed to build an understanding of how a high quality relationship in LMX terms, is developed, and which leadership behaviours or actions are associated with such high quality relationships. When considering the relevance of the LMX model to this thesis specifically, the theory raises the question of whether the

quality of the relationship between leader and staff members affects NHS service improvement, and if so how.

2.2.9 Transactional and Transformational Leadership

The distinction between transactional and transformational leadership first emerged from work by Burns (1978). He characterised transactional leadership as being grounded in a series of exchanges or transactions between a leader and followers, normally rooted within a hierarchical organisational structure. In contrast, transformational leadership does not depend on hierarchical seniority, but rather is a product of followers desiring to be led by a particular person, regardless of the formal relationships between them. Transformational leaders appeal to the needs of others and connect with them in a way which engages their interest and energy separately from task-related transactions. Later literature about the differences between transactional and transformational highlighted that the transactional model tended to relate to the managerial priorities of maintaining order, focusing on task achievement, controlling and problem-solving within an environment of relative stability. In contrast, it was proposed that the transformational model was conducive with rapidly-changing environments, where vision, innovation, adaptability and challenge were the key factors (Kotter 1990; Bennis & Nanus 1985).

The transformational model of leadership views leaders as agents of change, who inspire people in relation to what they are trying to achieve (a vision) by gaining trust and commitment from others. Although the literature thereafter became rather polarised into a transactional/ transformational debate, Bass (1985) described the two

concepts as on a single continuum. Latterly, there has been an acknowledgement that both types of leadership are needed in organisations, but for different purposes.

Several variations of the transformational leadership model have emerged from research, each with different ways of describing and categorising the features. They all tend to have a behavioural dimension, articulating what leaders need to do in their practice to demonstrate transformational leadership. The research done by Kouzes and Posner (1987) led to the development of the Leadership Practice Inventory (LPI), to provide leaders with access to some self-diagnostic development. Another frequently-used measure is the Multifactor Leadership Questionnaire (MLQ) (Bass 1985).

The terms 'charismatic' (House 1976) and 'transformational' leadership are sometimes used interchangeably in the literature and have as a common theme the leader's ability to inspire others. However, charismatic leadership tends to be more heroic, with a focus on what is special about the leader, whereas the transformational model tends to focus on a genuine engagement and mobilisation of the special qualities, talents and ideas of others. (Storey 2004).

In terms of the impact of transformational leadership on outcomes, Yukl (1999) reported that there was a link with staff satisfaction, motivation and performance. Northouse reports a Taiwanese study by Jung et al (2003) in which '*transformational leadership created a culture in which employees felt empowered and encouraged to freely discuss and try new things.*' (Northouse 2010, p.185.)

These research findings are interesting in respect of the focus of this thesis. They raise a question about the impact of transformational leadership on the culture of an organisation and its subsequent effect on staff innovation.

2.2.10 Servant and Ethical Leadership

These two leadership concepts are linked to transformational leadership through their emphasis on caring about and meeting the needs of followers. Servant leadership, an approach first developed by Greenleaf (1970), stresses the importance of caring for and nurturing followers, helping them to fulfil their full potential. A degree of social responsibility is also inherent in servant leadership. Ethical leadership provides a set of ideals and principles to guide leaders in their actions, articulated as values such as courage, honesty, fairness and loyalty. One might expect both these concepts to be highly relevant to NHS leadership, given its focus on service provision and healthcare. However, whilst these concepts are viewed in the literature as interesting areas of potential investigation, there is currently a lack of research findings to substantiate the ethical and servant approaches to leadership. (Northouse 2010). Accordingly, whilst the author acknowledges the importance of ethics in leading NHS improvement, the leadership models themselves do not currently appear to offer particular insights into the links between leadership and performance, or in relation to this thesis, NHS service improvement.

2.2.11 Shared Leadership

'The leadership actions of any individual leader are much less important than the collective leadership provided by members of the organization.' (Yukl 1999, p.293)

This viewpoint is increasingly gaining support in the literature, and reflects a recognition that leader-centric analysis, where one person is attributed with the status of leader, has considerable limitations. Shared or distributed leadership are concepts which recognise that sharing leadership tasks across teams, across organisational boundaries and across networks of organisations is essential to harness the range of skills and knowledge required to achieve outcomes. To look for all the required competence and ability in one person is arguably unrealistic. Alban-Metcalfe (2010) calls this 'integrative leadership' and describes it as,

'a communal form of leadership, whereby individuals succeed, and are seen to succeed, through working collaboratively with one another... Integrative leadership is a shared activity with shared responsibilities.' (p.5)

Gronn (2002) is a critic of the way leadership studies have spent decades demonstrating a '*strong commitment to a unit of analysis consisting of a solo or stand-alone leader*'. (p.423), arguing that this is '*odd, given the other important efforts to recontour the entire field of leadership*'. (p.424). He proposes that the appropriate unit of analysis in the study of leadership is that of distributed leadership, and outlines a taxonomy of distributed leadership. Gronn's work stresses that distributed leadership '*does not privilege the work of particular individuals or categories of persons*' (p.429),

or assume that some people are more influential than others, instead allowing for the possibility that many or all organisational members may lead at some stage.

Distributed leadership as a concept is well-established in the literature (Bryman 1996), and has been promoted as offering a valuable, fresh perspective on leadership in relation to improvement, specifically in the NHS (Buchanan et al (2007). Through an empirical research study, they explored the notion of 'leadership transmission ', derived from concepts of distributed leadership, and articulated it as,

'leadership, not as a set of individual characteristics, but as a fluid commodity that shifts and flows in a dynamic manner ... such that those in positions not traditionally considered as leadership roles nevertheless find themselves adopting leadership roles and exercising leadership practices.' (p.253)

There are resonances here with the concept of the 'ordinary leader', discussed by Ovretveit (2004) in his review of the leader's role in healthcare quality improvement. Viewing the actions of ordinary staff members as part of a wider leadership system, he defines ordinary leadership as,

'leadership by any member of the organisation to influence or support others in carrying out improvement. An ordinary leader for improvement is any person who influences others to spend time making the service better for patients.' (p.18)

Badaracco (2002) describes a 'quiet' approach to change leadership, which focuses on improving relatively small things, and Meyerson (2001) highlights how important the

actions of people in the middle of the organisation can be, behind the scenes and 'below the radar'.

Buchanan et al's (ibid) interest in this type of distributed leadership, and their work into leadership transmission is underpinned by the hypothesis *that 'some form of transmission process must be in place for leadership to become more widely dispersed'*. (p. 250). Their conclusions highlight the need to recognise transmission in a range of directions (one-way; bi-lateral and multi-directional) and also to acknowledge the relevance of timescale and context.

It can be seen that shared leadership is an area of burgeoning interest and research. Whilst evidence directly relevant to this thesis is still lacking, current NHS-related studies are underway (eg. Buchanan et al, 2008), which may provide interesting insights into how middle and frontline managers in the NHS impact on improvements to patient care. More broadly, it may be of interest to consider the relevance of shared leadership concepts to the research aims of this study.

2.2.12 Leadership for Complexity

The pace of change and the unprecedented levels of uncertainty which characterise the global context for 21st century organisations mean that leading through ambiguity has become a key leadership role in many organisations (Hartley & Benington 2010). Heifetz & Laurie (1997) propose that many contemporary leadership challenges are so complex that previous notions that a single leader might know what to do, are no longer tenable. Their model of adaptive leadership is one which surfaces conflict,

tensions and dilemmas, acknowledges how difficult issues are and engages people in finding bespoke ways to address unique challenges.

The concept of 'wicked' and 'tame' problems was originally derived several decades ago (Churchman 1967; Rittel & Weber 1973), but has recently re-emerged in the leadership literature as a construct to help differentiate leadership contributions to organisational life. (Grint 2005; Alban-Metcalfe 2010) 'Tame' issues are those whereby the problem may be extremely complicated and very difficult, but it is generally possible to analyse the problem and its parts, and identify a best solution to tackle the problem in a sequential manner. In contrast, 'wicked' issues are typically problems where there are differing views about the nature of the problem, as well as about the potential causes and the possible ways to address it. Wicked issues do not therefore lend themselves to a linear problem-solving approach, but require an 'adaptive response' from leaders, in order to mobilise capacity in the system to adapt to new challenges, rather than a 'designed response', which assumes that problems can all be fixed in a step-by-step, cause-and-effect way.

A certain congruence is apparent in the literature about the need for more sophisticated models of leadership to address increasingly complex organisational challenges. At a conceptual level, this may be very interesting, but as yet, the literature has little to offer to clarify exactly what leadership for complexity is in behavioural terms, or what impact it has on organisational or systems outcomes. However, for the purposes of this thesis, it may be pertinent to consider the relevance of complexity models of leadership in the context of improving NHS services.

2.2.13 Relevance to Thesis

It is clear from this analysis of key leadership theories and models that some concepts are more evidence-based and empirically-tested than others. Table 2 provides a summary of the main leadership models from the literature, outlining research gaps associated with each and highlighting aspects of the models which appear to be of potential relevance to this thesis.

Table 2. *Summary of key leadership models and theories with potential research issues and gaps*

Model or Theory	Key Associated Literature	Research Gaps	Relevance to exploring links between NHS leadership and improvement
Trait Theory Innate personality factors mean that leaders are born, not made. 'Great Man' and 'Hero' leadership.	Bernard 1926; Stodgill 1948, 1974; Mann 1959;	What is the relationship between leadership traits and organisational outcomes? What are the links between leadership traits and different leadership contexts?	Focus on the individual leader Is personality a factor in leading effective NHS improvement?
Skills Approach Focus on the capabilities of leaders : categorised into technical, human and conceptual skills. Leadership outcomes are related to leader capabilities	Katz 1955; Mumford, Zaccaro et al 2000	To what extent are research findings from US Army relevant to other sectors? How are the skills enacted in behavioural terms?	Technical, human and conceptual skills areas are still evident in current leadership frameworks What links are there between the skills and capabilities of NHS leaders and improvement?
Style Theory Focus on what leaders do. Relationship-centred and task-centred styles (democratic and autocratic)	Katz & Kahn 1951; Hemphill & Coons 1957; Likert 1961; Blake and Mouton 1964; Bowers & Seashore 1966	How are leadership styles associated with organisational outcomes? Given the focus on leader actions, how are the styles enacted in behavioural terms?	Are different leadership styles evident amongst NHS improvement leaders?

Model or Theory	Key Associated Literature	Research Gaps	Relevance to exploring links between NHS leadership and improvement
Situational Theory The leader changes style to suit the competence and commitment of subordinates.	Hersey & Blanchard 1969;	How reliable and valid are the concepts? How does the theory apply to leading groups? How does the theory take account of different contexts? What are the links between the theory and organisational outcomes?	How might the differing nature of employees involved in NHS improvement affect the leadership required?
Contingency Theory The leader changes style depending on the member relations, task structure and positional power held.	Fiedler 1964; 1967 Fiedler et al 1984	Why are certain leadership styles more effective in certain situations?	Are different leadership styles appropriate for different types of improvement work?
Path-Goal Theory The leader adapts their style to optimise the motivation of their subordinate.	Evans 1970; House 1971	How do the leadership styles directly affect staff motivation?	To what extent is the motivation of staff, and appropriate leadership styles to support this, a key factor in leading NHS improvement?
Leader-Member Exchange (LMX) Theory Centres on the quality of the relationship between leader and follower	Danserau, Graen & Haga 1975; Graen & Cashman 1975	How are high quality relationships between leaders and followers developed? How do these relationships manifest themselves and what are the behavioural indicators?	Is the quality of relationships between staff and leaders of particular significance to leading NHS service improvement?
Transactional & Transformational Leadership Transactional leader maintaining order and control ; transformational leader as an inspirational change agent	Burns 1978 Bass 1985 Bennis & Nanus 1985 Kouzes & Posner 1987	To what extent do transactional or transformational leadership enable the conditions for improvement and innovation?	What are the respective contributions of transactional and transformational leadership in achieving NHS service improvement?

Model or Theory	Key Associated Literature	Research Gaps	Relevance to exploring links between NHS leadership and improvement
Servant & Ethical Leadership Providing a service to others; caring for and nurturing followers, underpinned by social responsibility	Greenleaf 1970	What is the evidence of the impact of servant or ethical leadership?	Are either of these models evident in leading NHS improvement?
Shared Leadership Includes dispersed; distributed; and transmission concepts. Leadership at many levels and can be shared between people.	Bryman 1996 Gronn 2002 Buchanan 2007	What is the evidence that distributed leadership is linked with performance? Current study into distributed leadership in the NHS (Buchanan 2008)	How might shared leadership be linked to NHS improvement?
Leadership for Complexity Including adaptive and integrative leadership; intended to address 'wicked' issues, typically through partnership; acknowledgement that there is no clear answer; ill-defined in behavioural terms	Heifetz & Laurie 1997 Grint 2005 Plamping et al 2010	Beyond the concepts, what is leadership for complexity in behavioural or practical terms? What impact does it have on outcomes?	What, if any, role do these models play in leading NHS service improvement?

Source: Developed by the researcher

2.3 A Theoretical Overview: The Improvement Literature

The concept of 'improvement' is extremely broad, drawing on and combining with further wide-ranging concepts, such as those of quality and safety. For the purposes of this review, the wider term of 'improvement' will be used, to encompass aspects which are more specifically described in the literature as quality improvement, safety improvement or other strands of improvement work.

Much of the literature concerning these areas provides descriptions, critiques and evaluations of improvement methodologies, developed as a set of approaches, tools, techniques and processes to support attempts to bring about improvement in the workplace. Most of these are industrial in origin, and have latterly been translated into the arena of healthcare and clinical quality improvement. Boaden et al (2008) note that in terms of healthcare improvement, there has been a need to consider both clinical and managerial aspects of the work, and hence healthcare improvement has drawn on both clinical and industrial improvement approaches to bring about developments.

The purpose of this section is not to describe or analyse the multitude of improvement approaches in their own right. Rather, it is to consider those improvement approaches which pertain to the improvement of healthcare specifically, and to consider what is known about the role of leadership within these. For the purposes of the research questions underpinning this study, the focus of this section is specifically to explore what the improvement literature tells us about any links or relationships between improvement and leadership. According to Lakshman (2006), *'the role of leadership in managing quality is relatively unaddressed in the leadership literature.'* (p.41). This section considers the extent to which the converse is true: how far does the improvement literature address the role of leadership?

Along with the analysis of the leadership literature in Section 2.2, this section is intended to frame the overall study, and provide a starting point from which to further investigate how leadership is associated with improving healthcare. A brief overview of each main improvement approach is provided, followed by a short discussion of the role of leadership within the approach.

2.3.1 Total Quality Management (TQM)

TQM is one of several acronyms representing sets of principles and practices for whole organisation improvement; other examples include Continuous Quality Improvement (CQI) and Total Quality Improvement (TQI). The extent to which these approaches are distinct appears to be a moot point in the literature, according to Larson & Muller (2003), underlining the fact that the terms seem to be used interchangeably in the literature. The core elements of TQM and related terminology are summarised as a *'management philosophy and business strategy'* (Iles and Sutherland 2001, p.48), which could more simply be understood as 'the way we do business'. The key aspects which underpin TQM are summarised as:

- meeting the needs of internal and external customers is essential for organisational success;
- the processes in an organisation impact on quality, and whilst they are complicated, it is possible to make them understandable;
- complicated problems with organisational processes can often become clearer through analysis of related data and simple statistical methods;
- most people are motivated to work hard and achieve;

(Hackman & Wageman 1995)

When the TQM literature is scrutinised for insights into how leadership contributes to total quality management, conclusions are largely tentative and generalised. For example, studies which demonstrate that the way in which TQM is implemented

directly relates to quality performance (e.g. Douglas & Judge, 2001), suggest that leadership has a key role to play in effective TQM implementation. Its importance is highlighted, but what leadership's role is and how it is enacted remain opaque. Similarly, the lack of leadership support is often quoted as a reason for the failure of TQM initiatives. (Lakshman 2006) Here again, however, the literature falls short of exploring exactly what was lacking and how this clarifies the nature of the leadership contribution to TQM. Hackman and Wageman's analysis of TQM (1995) is clear in its conclusion that the founders of TQM (such as Deming, Crosby, Feigenbaum and Juran) viewed quality as a leadership responsibility and saw TQM principles as leadership principles. Lakshman (2006) took this assertion as a basis for developing a theoretical framework of leadership for quality. He summarises the three key TQM principles as customer focus; participation/teamwork and continuous improvement, and comments that all three are, in his opinion, neglected in the leadership literature. On the basis that each of these is a core leadership principle in managing quality, he offers 15 propositions about how leaders' traits, values and behaviours might translate into quality and performance outcomes. Using evidence from the literature to support his framework, he particularly highlights the potential leadership contribution in areas such as communicating the importance of the TQM principles; the use of self-managing teams; high levels of participation; openness and information sharing; coaching behaviours and support to teams. The implication behind the propositions is that if leadership is enacted using the core values and principles of TQM, then this will have a direct relationship with quality outcomes. As a theory, it is arguably logical, thorough and robust; its key limitation is that it has not been tested in practice. Each

of Lakshman's 15 propositions would need to be tested through in-depth empirical research, which limits the immediate applicability of the theory. Nevertheless, despite its focus on quality management rather than improvement more generally, there are aspects of the theory which may be of pertinence to this study.

In summary, the TQM literature seems to indicate that leadership has a key role to play in managing quality, and offers a plausible but untested theory of which aspects of leadership might be of most significance. However, it offers no consistent empirical findings which illuminate these links between leadership and improvement. Given the thorough nature of Lakshman's theoretical framework, it will be worthwhile revisiting these ideas towards the end of the study to explore their potential relevance to NHS improvement.

2.3.2 Business Process Re-engineering (BPR)

Emerging from the work of Hammer and Champy (1993), BPR differs from TQM in significant ways. Unlike TQM, it is not an organisation-wide initiative, focusing instead on specific business processes and radically changing the way these are carried out, with a view to improving or removing non-value adding activities. Its more focused approach to improvement is accompanied by clear and finite timescales, compared with TQM which is intended to take place incrementally and gradually over a longer period of time. It was frustration with the slowness of TQM in achieving improvements that precipitated the introduction of BPR into healthcare. Its drive for efficiency and its patient focus are considered key attributes of BPR in the healthcare setting. (Patwardhan & Patwardhan, 2007)

BPR is based on some underlying concepts, summarised by Iles & Sutherland (2001) as:

- organising around key processes rather than specialist functions
- self-managed teams of multi-skilled workers rather than specialists
- radical re-design rather than incremental improvement
- led from top management down.

This final feature of BPR, relating to the top-down management of BPR, also distinguishes it from TQM. This aspect of BPR has attracted much critique in the literature, with commentators and researchers in healthcare and business suggesting that a top-down approach is unlikely to succeed (Iles & Sutherland 2001) and providing scathing commentary against the approach:

'Quality would seem unlikely to be forthcoming if re-engineering is imposed from the top down in a rigid and mechanistic fashion.... If organizational change is to be effective and sustainable, this will also require the active engagement of, and learning by, employees rather than grudging compliance with management diktat.' (Jones, 1996, p. 4284)

While other criticisms of the approach relate to its lack of regard to organisational context (Buchanan 1997; McNulty & Ferlie 2002), it is the imposed nature of the approach, in contrast to the participative nature of TQM, which appears most relevant in leadership terms to the research questions in this study. Whilst the leadership dimensions of BPR do not seem to prevail in the improvement literature, there is more

of a consensus about how improvement may be inhibited by a top-down approach, than any agreement about what positive contribution leadership might make to BPR.

2.3.3 Six Sigma

This approach to improvement uses statistical methods to identify and then eliminate defects in service or manufacturing processes. Initially developed by Motorola in the 1980s, its statistical analysis methods are reported to have made dramatic improvements in the electronics (Boaden et al 2008), manufacturing and service industries (Antony et al, 2007). There are five key stages to the Six Sigma approach, abbreviated as DMAIC : Define; Measure; Analyse; Improve; Control.

Within the healthcare setting, Antony et al (2007) refer to examples of improvements from Six Sigma in US hospitals as including more timely completion of medical records, increased bed availability and reduced medication errors. However, they suggest that Six Sigma in healthcare is still in its 'infancy', especially in the UK. They propose seven Critical Success Factors, which are essential for the implementation of Six Sigma in healthcare, two of which are specifically related to leadership.

The first of these is what they call 'Uncompromising top management support and commitment', stating that *'if the senior management team is not on board, it is almost certainly a formula for failure.'* (p. 249) They also highlight the need for Six Sigma champions to lead projects. However, there is no reference to what the leaders at senior or champion level are actually required to do, how they might behave, or what would be critical about their leadership approach, which would have an impact on the initiative.

The other Critical Success Factor which has relevance to leadership is a category they call 'Effective Leadership'. Within this, the authors suggest that the following issues may be indicators of leadership commitment within a Six Sigma initiative:

- clear direction and guidance on deploying Six Sigma;
- commitment of both financial and personnel resources for the initiative;
- a clear strategic deployment plan showing the tangible objectives and goals of the initiative;
- development of a communication plan (i.e. need for the initiative, the benefits of implementation, roles and responsibilities of everyone in the new way of thinking, etc.);
- a focus on tangible results; and
- a reward and recognition system.

This list is suggestive of leadership as a set of actions which aim for clarity, control, order and predictability. It resonates with a highly transactional approach to leading improvement, and implies a clear hierarchical relationship between those deciding what is to be done, and those who will do it. This is perhaps not surprising within the context of the Six Sigma methodology, which is quantitatively-driven with production-line, linear-based and mechanised origins. What is intriguing is that the authors also state,

'Achieving the desired results will require changing the way we work and changing the mindset of people. In other words, there is a need to

move people successfully from the old way of doing things to new way of working, which demands supportive leadership.’ (p. 251)

The implication is that their list of indicators for leadership commitment characterise ‘supportive’ leadership. However, when analysed against leadership literature and evidence, there is a disconnect between the expressed need to change the culture, and the programmatic, transactional aspects of leadership that they suggest are critical to success. This is a flaw in their analysis, which limits the usefulness of their hypothesis about how leadership contributes to improvement. An indication that their analysis of the leadership dimensions of Six Sigma is rather superficial is also contained in their closing statement,

‘As with all improvement strategies, all it takes is a couple of brave leaders willing to take the right course and confront resistance to core issues once and for all’. (p. 252)

If this conclusion to a peer-reviewed piece of academic analysis in any way reflects current levels of understanding about how leadership relates to improving healthcare, it underlines the need for more research such as that contained in this thesis. It also highlights a gap in the literature relating to how leadership makes a practical contribution within a Six Sigma approach.

2.3.4 Lean

The term ‘Lean’ originated from the Toyota Production System of producing high quality cars cost-effectively, quickly and with minimal waste. Its transfer from the

production line to other industries, including public services, was based on 'Lean Principles' outlined by Womack & Jones (1996). These core principles are not dissimilar from those of Six Sigma, but Lean is proposed as being a more appropriate step-based, sequential approach to solving identifiable problems, such as those of a production line, whereas Six Sigma is deemed more appropriate when the cause of an improvement-related problem is more complex and unknown. (Boaden et al 2008).

The literature draws comparisons between Lean and other improvement approaches. For example, the elimination of non value-adding activities at the heart of the Lean approach, is similar to one of the principles of BPR. The Lean approach, with its focus on CQI, also resonates with TQM approaches, and its emphasis on rapid improvement events echo the Plan-Do-Study-Act (PDSA) approach (to be explored in the next section). More recently, aspects of Six Sigma and Lean have been combined into an approach termed Lean Six Sigma (Bossert 2003). The literature comparing and contrasting Lean with other strategies shows that many tools are core to both Lean and other approaches, and it is not straightforward to distinguish between them all. Nave (2002) suggests that the organisational culture should determine whether Lean or another approach is appropriate, given their similarities.

In terms of its application to healthcare, Lean's industrial and production-based focus on process flow may not appear obviously transferable to public services. However, Radnor & Boaden (2008) outline a range of evidence-based tools and approaches which have been tested in the public sector, and Boaden et al (2008) provide an analysis of healthcare sector characteristics which suggest that Lean is applicable, plus a wide range of examples of UK NHS organisations adopting Lean methodologies.

Within the Lean literature generally, there is an emphasis on research and practice in lean tools and techniques rather than on factors such as leadership. Beale (2005) observes that *'little thought is given to the need for cultivating an appropriate organisational culture'* (p.2) and highlights an *'important people gap in the research on lean implementation'* (p.5). This gap highlighted by Beale illustrates two areas which could potentially reveal links between Lean and leadership, should there be research conducted.

Findings specifically relating to leadership within Lean provide limited insights. For example, Jones and Mitchell (2006) stress that Lean must be locally-led; successful Lean is related to a supportive organisational culture (Radnor et al 2006); leaders need to *'embrace and embody'* Lean in their own work (Spear 2005, p91); management commitment and capability is associated with successful Lean implementation in the public sector (Radnor et al 2006); leaders must create an environment where frontline staff can implement the solutions to the problems they have identified. (Westwood et al. 2007). The common thread running through these findings relates to how leadership creates a culture where Lean can succeed. The current evidence base sheds little light on this core aspect of leading improvement, and does not offer specific details about what leaders need to do to engender such a culture. Indeed, it is not apparent whether such a culture is any different for Lean implementation than any other improvement approach. Thus, the Lean literature raises some interesting issues relating to leadership, but does not yet appear to have explored them in any detail or depth.

2.3.5 Plan-Do-Study-Act model (PDSA)

Originally termed the PDCA (plan-do-check-act) cycle, this approach was developed by Deming (1986). Cyclical by nature, it is a continuous approach to improvement whereby people involved in the focus area of work engage in a cycle of planning small improvements, making the agreed changes, studying the effects and taking action to make further improvements. Over time, the use of the cycle is referred to as rapid-cycle improvement, where small PDSA cycles are undertaken one after the other in relatively quick succession. (Horton 2004)

The PDSA approach in industry has usually been viewed as one of the many methodologies associated with TQM or Lean. However, in healthcare, the PDSA model was embedded by the Institute of Healthcare Improvement (IHI) into a methodology known as the 'Improvement Collaborative Methodology', giving it higher profile and more recognition than some other methodologies, and meaning it arguably became viewed in healthcare as a quality improvement approach in its own right. The approach brings together teams from a range of healthcare organisations with a common area of focus (eg improving cancer services, acute mental healthcare, coronary heart disease), and provides a structured process for them to undertake agreed rapid improvement cycles in the workplace, and to pool learning gained from improvements made.

The breakthrough collaboratives, which were implemented in a wide range of countries, were extensively evaluated, and a meta-evaluation involved identifying the critical determinants of their effectiveness (Wilson et al 2003). In terms of the relevance to this

thesis, one of these determinants identified was 'senior leadership support'. There were variations in the resources made available, the commitment to the initiative and the recognition and endorsement provided for improvements by senior leaders, and these were all found to impact on the collaborative approach as a whole.

It appears that the role of leadership has not been a core area of research or critique in the literature relating to PDSA or breakthrough collaboratives. As such, beyond a generic finding that senior leadership support helps with the approach, this area of improvement literature currently has little to suggest about any links between leadership and healthcare improvement work.

2.3.6 Relevance to Thesis

As with the leadership models, it is clear from this analysis of key improvement theories and models that some concepts are more evidence-based and empirically-tested than others. Table 3 provides a summary of the main improvement models from the literature, outlining research gaps associated with each and highlighting aspects of the models which appear to be of potential relevance to this thesis.

Table 3. Summary of key improvement models and theories with potential research issues and gaps

Model or Theory	Key Associated Literature	Research Gaps	Relevance to exploring links between NHS leadership and improvement
Total Quality Management (TQM): based on the principles of customer focus; participation/ teamwork and continuous improvement	Dean & Bowen 1994 Hackman & Wageman 1995	Espoused importance of leadership to TQM is not substantially explored Theoretical framework for leading quality through TQM (Lakshman 2006) has not been empirically tested.	How important are the TQM principles to leading NHS improvement? How might TQM principles be enacted by NHS leaders?
Business Process Re-engineering (BPR): a process for re-designing key business processes to eliminate non-value-adding activities and improve efficiency	Hammer & Champy 1993 McNulty & Ferlie 2002	What contribution does leadership make to BPR beyond senior level support and drive?	Top-down, imposed approach appears to inhibit engagement and improvement. Which aspects of BPR might be relevant to leading more general improvement in the NHS?
Plan-Do-Study-Act (PDSA) and Breakthrough Collaboratives: improvement cycle approach based on making successive small but significant local improvements	Deming 1986 Langley et al. 1996	What contribution does leadership make to PDSA beyond senior level support and drive? What has been learnt about local, team-based leadership from the PDSA approach?	How is senior level leadership support manifested / enacted in the NHS? How can senior NHS leadership support team-based local leadership?
Six Sigma: approach to improvement using statistical methods to identify and then eliminate defects in processes	Deming 1986 Linderman et al 2003	Which aspects of leadership are critical to the success of Six Sigma? Critical success factors relating to leadership of Six Sigma (Antony et al 2007) require further detail and more sophisticated analysis to be of practical use.	How relevant are the critical success factors relating to leading Six Sigma when applied to leading improvement in the NHS?

Model or Theory	Key Associated Literature	Research Gaps	Relevance to exploring links between NHS leadership and improvement
Lean: focuses on making the production or service flow process more efficient, combining techniques such as waste elimination, rapid improvement cycles and CQI approaches.	Womack et al 1990 Womack & Jones 1996	Predominance of research on Lean tools and techniques and an absence of research into the human and cultural dimensions of Lean.	How important are the human and cultural dimensions to improvement in the NHS?

Source: Developed by the researcher

2.4 Summary of Theoretical Models

In terms of leadership, the literature offers a rich variety of models, each of which sheds a shaft of light on the overall concept. An integration of these ideas into an overall coherent analysis remains somewhat lacking, although the Warwick Six C Leadership Framework (Hartley & Benington 2010) is a significant contribution relating specifically to the public sector.

Whilst the field of leadership has been widely-studied and extensively researched, it seems apparent that there has been more interest in understanding leadership as a phenomenon in its own right than in exploring the difference it makes to intended organisational outcomes (see section 3.5 for a detailed overview of this aspect of the literature). This may be partially explained by the intrinsic difficulties of linking the broad, contested concept of leadership with the multi-faceted nature of organisational outcomes. Buchanan et al (2007) discuss the problems of linking leadership behaviour,

(arguably an independent variable), with the dependent variable of clinical outcomes, and highlighting the difficulties of isolating leadership as an interceding factor:

'leadership is not a quantifiable variable whose impact can be determined by simple experimental or observational methods.' (p.254).

The purpose of reviewing the leadership concepts and models in the literature was to extract any aspects which seem relevant to leading NHS improvement. Overall, the range of theoretical leadership models provide little specific insight into how improvement is effectively led in practice.

It would appear that some aspects of several leadership models may have relevance to leading NHS improvement and to this thesis. In particular, the concept of contingency leadership has parallels with the hypothesis contained within this thesis that different leadership might be required for different types of improvement work. In addition, both the style and skills approaches to conceptualising leadership, with their emphasis on what leaders do, would appear to reflect the behavioural focus of this study, and may therefore provide an interesting framework for analysing the study findings. Given the contemporary nature of concepts such as shared leadership and leadership for complexity, these would appear to be particularly current as a frame of reference for present-day leadership research findings. Therefore, whilst no single leadership model from the literature would be sufficiently comprehensive to offer an overall theoretical framework for this study, it will be useful to consider several key leadership concepts as a context for the study's results. Emerging themes will be addressed in the discussion in Chapter 7.

Similarly, the improvement literature lacks specificity in relation to the contribution of leadership. What still remains a significant research gap, appears to be the role played by leadership in the implementation of improvement and in creating the required organisational culture and environment alluded to in the improvement literature. This is highlighted by Boaden et al (2008):

‘Despite a huge amount of evidence and research on organisational change, leadership and organisational culture from the social sciences, to date this has not been incorporated to any large extent into the evidence for quality improvement.’(p.128)

Boaden et al’s (2008) review of improvement in healthcare concludes that improvement tools and techniques on their own do not lead to quality; rather, there is general agreement that it is system issues that determine quality, and that tools only have limited impact on changing the system. Leadership would appear to be one of these systems factors, and this is underlined by one of their main conclusions:

‘it is clear that the main issue is the way in which the improvement is implemented, rather than the nature of the improvement itself.’(p.18)

Therefore, in terms of how leadership affects improvement, the literature seems to suggest that it is an important factor, but falls short of identifying what this means in reality, or in any way which might be practically useful to leaders in healthcare organisations. Lakshman’s (2006) theoretical analysis of how TQM principles might translate from being leadership values and behaviours into quality improvement, is the clearest attempt in the improvement literature to integrate the notions of leadership

and improvement, but as a theoretical framework, it stimulates questions rather than providing insights. As a point of reference, however, it is likely to be useful in the discussion of this study's research findings, in Chapter 7.

The clear and significant gap identified from the leadership and improvement literature in terms of how the two concepts relate to each other, is the central focus of this study. It is evident that research is needed to further investigate what these links are. This overview of the literature on theories of leadership and improvement will be revisited in the discussion in Chapter 7, in the light of the results of this research. The analysis of the results will reflect some of the most pertinent questions and issues raised in this chapter.

CHAPTER 3 LITERATURE REVIEW

3.1 Introduction

The starting point for this study was to ascertain the extent of the existing evidence base concerning links between leadership and improvement. The literature review which follows is intended to position the study in a research context, illustrating how the research aims grew out of the current body of knowledge. This chapter firstly defines the relevant terms, to clarify and specify how these are being understood and used within this thesis. It then outlines recent literature reviews which had been undertaken in related areas at the outset of this study. It goes on to explain the literature search strategy used and to describe the detailed literature review undertaken specifically for the purposes of this study. In doing so, it fulfils several of the goals of a literature review identified by Neuman (2006), namely to *'integrate and summarize what is known in an area'* and to *'show a path of current research and how a current project is linked to it.'* (p.111). Finally, the chapter provides what Murray (2002) calls *'an interpretation of the field'*, summarising the trends and themes emerging in the literature and highlighting the extent of the gap in the evidence base in the field.

3.2 Scope and Definition of Terms

In order to scope the literature review, it was necessary to consider the definitions of key terms, to provide focus to the search.

3.2.1 Scope and Definition of Leadership

‘Leadership’ is such a broadly-defined term that its use in the literature search was helpful in keeping the search wide, to encompass the many aspects of leadership which may be of relevance. Consideration was given to including the search term ‘management’ but this was excluded on the basis of the extensive literature concerning the differences between management and leadership. (Kotter 1990; Storey 2004) Given that one of the key differentiators is the focus on future-oriented change rather than here-and-now efficiency, a deliberate choice of the term ‘leadership’ and a deliberate exclusion of the word ‘management’ was made.

Notwithstanding the benefits of including a broad search term such as ‘leadership’, it was acknowledged that some further focus within this was important. Hartley and Benington’s (2010) discussion of leadership concepts offers, for example, leadership as position, leadership as social process and leadership as personal qualities as alternative conceptualisations. They offer an overall framework of leadership as,

‘a lens through which to scrutinize the leadership literature and to provide an overview that takes into account key elements affecting leadership processes and outcomes.’ (p.7)

Their Warwick Six C Leadership Framework encompasses Concepts, Characteristics, Contexts, Challenges, Capabilities and Consequences. Whilst all of these are of potential relevance in respect of this research study, it was specifically the area of Capabilities that The Health Foundation wished to explore more deeply. Their organisational emphasis on leadership development led to a particular interest in

understanding what leaders do (and how this can be developed) which contributes to NHS improvement. From a research perspective, capabilities would be evident through manifested behaviours, as highlighted by Hartley and Benington (ibid):

‘ a focus on behaviours helps to make explicit what the practices are that contribute to effective performance and help to anchor performance in real, observed practices. This is in preference to judgements about skill that are not evidence-based but are prone to personal biases, attribution errors and halo effects.’ (p.80)

The search term ‘behaviour’ was added in order to capture literature which specifically considers the way leadership is enacted through behaviours.

3.2.2 Scope and Definition of Improvement

Just as ‘leadership’ is a broad and contested concept, the same could be said of ‘improvement’. Starting with the most fundamental definition of *‘the act of making or becoming better’* (Concise Oxford English Dictionary 2006), the word ‘improvement’ is intrinsically associated with better quality, as illustrated by the Collins English Dictionary definition: *‘the act of making or becoming better in quality’* (Collins 1986).

Within an NHS context, various interpretations of improvement have developed, including quality improvement (QI), safety improvement, service improvement, systems improvement and process improvement, to the point where ‘improvement’ alone is rarely referred to. These variations on a theme have largely been shaped by other sectors, and in particular by industry and engineering, with lessons and practices

in how to make systems and processes work better leading to the birth of 'improvement science'. As noted by Boaden et al (2008),

'There has been some discussion about the concept of 'improvement science' as a discipline. This term was described as 'knowledge of general truths or the operation of general laws especially obtained and tested through scientific method.' (p.25)

This highlights the significance of methodology within improvement science, and within the NHS context, 'improvement' is now associated with myriad 'methodologies' for making things better. Several of these have been examined in Section 2.3, and include Plan-Do-Study-Act (PDSA) cycles, Breakthrough Collaboratives, Statistical Process Control, Six Sigma, Lean, Business Process Re-engineering and Total Quality Management. Overall, these approaches to improving quality all fall into the category of Business Process Improvement Methodologies, which according to Radnor (2010) focus on *'the need to reduce cost, develop efficient processes and respond to policy'* (p.9) as well as enhancing customer satisfaction or value as derived by an end-user of products or services. Common themes within these approaches are data and measurement, understanding the process to be improved, improving reliability, analysing flow, demand and capacity and engaging staff.

The Health Foundation itself, as the commissioner of this study, adopts a particular definition of quality improvement, with strong influences from the Institute of Health Improvement (IHI) and the Institute of Medicine (IOM). Their definition is based on the

IOM's six dimensions of healthcare quality, namely safety; effectiveness; patient centredness; timeliness, efficiency and equity (Institute of Medicine 2010). It reads,

'Improving quality is about making healthcare more safe, effective, patient- centred, timely, efficient and equitable.' (The Health Foundation 2010, p.3)

It can be seen, therefore, that including 'improvement' as a search term potentially opened the gates to a very wide range of literature, from the very generic to the very specific. However, just as with 'leadership', this was important in ensuring that no key evidence was overlooked. Given the Health Foundation's own emphasis on QI as opposed to just 'improvement', the term 'quality' was included as a separate search criterion.

Full details of the literature search strategy are provided in Section 3.4. In advance of the literature search, the author referred to previous, recent literature reviews which had been carried out relating to leadership and improvement. These provided an initial context for the literature review required for this study, and are detailed in the next section.

3.3 Previous Literature Reviews

A previous comprehensive review of the literature relating to leadership and improvement had been undertaken in 2005 (Ovretveit 2005). This stated,

'In summary, although there are many publications stressing the importance of leadership, only a few studies provide observational evidence to support this view, and no studies have rigorously tested this proposition in healthcare.'(p. 415)

Furthermore, whilst leadership was found to be an important factor by many studies, this was at a generic level, providing very little specific insight into which aspects of leadership made a difference, and how. With a vast range of interpretations of what is meant by the concept of leadership, the best conclusion that could be drawn was that a concept without clear definition, known as 'leadership', appeared to matter in organisations in a range of ways. Hartley and Benington (2010) sum up their own review of the literature saying,

'while the impact of leadership on performance is often asserted, the evidence is more fragile, ambiguous or incomplete.'(p. 96)

In 2008-09, Ovretveit carried out a further, more specific review of the evidence, bringing the previous one up-to-date, and focusing on literature about leader actions related to improvement. It was based on two null hypotheses: firstly, that there was no evidence that actions by leaders have any influence over improvement; secondly that there was no evidence of which specific actions by leaders in which situations influence improvement. (Ovretveit 2009)

In a report to The Health Foundation written by Ovretveit (2008), he stated that there were,

'few studies specifically focusing on leading improvement, and that most studies considered leadership as part of a more general study.'

(p.15)

His work did highlight some 'weak evidence' that action taken by leaders to alter systems, structures and processes could have an effect on patient care (Ovretveit

2009). However, he concluded that the actions most likely to be successful depended on a wide range of factors, including the leadership role; the people to be influenced; the improvement aims; the improvement methods; the organisational context, setting and culture.

So it can be seen that when this study commenced, the Ovretveit reviews provided a helpful, up-to-date position regarding the literature about the effects of leadership on service improvement. They ascertained that there existed very little strong evidence of the impact of leadership on improvement efforts. The evidence base scrutinised by Ovretveit did not provide any consistent findings to determine whether or how effective leadership with a QI purpose is different from any other kind of leadership (e.g. leadership in a crisis; leadership for financial balance). Furthermore, the nature of leadership required for effective QI was unclear; the critical factors which explain how leadership for QI might be contingent on its context were ambiguous; and how leadership for effective QI might be developed was practically uncharted territory. Indeed, Ovretveit highlighted the difficulty in identifying the links between the two concepts of leadership and improvement, and confirming the lack of evidence of direct causality:

“It is a long causal link from a leader’s actions to outcomes’ (Ovretveit 2008, p.25)

While some literature provided guidance to leaders about steps to take in leading improvement, a clear gap in the evidence appeared to exist in understanding exactly what leaders do and how they behave when they are attempting to improve services.

The final Ovretveit evidence review reported in 2008/09, at the very outset of this study, meaning that the author could be confident that a wide range of the literature had been searched. However, the author was aware of a body of relevant literature, which did not feature significantly in the Ovretveit reviews, relating to the indirect links between leadership and improvement. Whilst organisational culture was not central to the research questions for this study, it was nevertheless important to bear in mind evidence which highlighted its relevance in mediating the impact of leadership on improvement. If leadership is shown to have causal impact on culture, which in turn can affect performance, then this evidence would be relevant to understanding the nature of linkages between leadership and improvement.

The Ovretveit reviews had concentrated on PubMed, Medline/ Ovid and Web of Science bibliographic databases as the main literature sources. The author was aware that other bibliographic databases covered many organisational subjects relevant to this study, but with a management rather than a medical or scientific focus. This management focus was identified as an omission to the otherwise apparently comprehensive searches undertaken by Ovretveit. Additional literature searches were therefore undertaken by the author, as detailed below.

3.4 Literature Search Strategy

The search strategy built on that undertaken by Ovretveit, and was undertaken between January 2008 and June 2010. Given the large and diverse literature in this area, the search was limited to research published during the New Labour era, namely

from 1997 – 2010. This was on the basis that service improvement and leadership across public services both became a core focus of government policy during this time, leading to an increased interest in understanding the two concepts, and the relationship between them. (Department of Health 1997; Department of Health 2008).

The search identified Emerald, CINAHL and Ingenta Connect as relevant bibliographic databases not covered by Ovretveit's previous reviews. Emerald was selected to include research related to broad management, business, society and public policy. CINAHL was selected to encompass evidence from clinical fields beyond medicine. Ingenta Connect was included for thoroughness, because of its far-ranging scope relating to scholarly and academic research.

The following keywords were used for the search: Leadership; Improvement, Behaviour, NHS, Quality, Quality Improvement. Within any of these databases, a single keyword yielded a huge number of 'hits'. For example, the keyword 'Leadership' resulted in 2576 results in Emerald and 16738 in CINAHL. The single keywords 'Improvement' and 'Quality' resulted in 40184 and 114834 hits in CINAHL respectively. Combinations of keywords were therefore essential for narrowing down the search. The number of results yielded for Emerald and CINAHL when two keywords were combined are shown in Tables 4 and 5 respectively.

Table 4. Emerald keyword search results

EMERALD	Leadership	Improvement	Behaviour	NHS	Quality	QI
Leadership	2576	39	129	3	108	17
Improvement	39	26064	4	1	353	n/a
Behaviour	129	4	3284	0	138	1
NHS	3	1	0	2780	3	0
Quality	108	353	138	3	4355	n/a

Table 5. CINAHL keyword search results

CINAHL	Leadership	Improvement	Behaviour	NHS	Quality	QI
Leadership	16738	944	77	218	2175	705
Improvement	944	40184	449	458	19671	n/a
Behaviour	77	449	10411	124	1015	43
NHS	218	458	124	11123	1718	252
Quality	2175	19671	1015	1718	114834	n/a

Combined keyword searches narrowed the search considerably, but when the keyword of 'leadership' was combined with one other keyword, this still yielded several hundred articles in most cases. The aim was to narrow down the wide-ranging management and organisational literature to identify evidence about how leadership in practice (eg through behaviour) links to improved performance, and specifically improved NHS services. Three-way combinations of the keywords, as shown in Table 6, were therefore applied to the search, in order to focus in on those studies which had relevance to the specific research questions of the study.

Table 6. 3-Way combined keyword search results

	EMERALD	CINAHL	INGENTA
Lship+Behvr+NHS	0	4	8
Lship+Impr't+NHS	0	27	22
Lship+Impr't+Behv'r	3	6	21
Lship+Behv'r+QI	0	2	9
Lship+NHS+Quality	0	44	23
Lship+NHS+QI	0	15	8

The process of combining 3 keywords illustrated the relative lack of articles relating to leading improvement in an NHS context compared with those about improvement, quality or leadership generically. The material contained some empirical research (mainly survey-based), and primarily included case studies, theoretical analyses, evaluations, commentary, theoretical syntheses and conceptual frameworks. Leadership tended to be defined as a structural, organisational factor (eg. 'the leadership of the organisation' in Vaughn et al. 2006) or as a set of attributes (eg. creating vision, providing direction) rather than in behavioural terms. The majority of studies originated from North America, the UK and Western Europe, with a few from Australia and Asia. The majority of articles were based on public services, with some specific to healthcare and the NHS.

The published articles and reports derived from 2-way and 3-way keyword combinations were electronically sorted by relevance, and the most relevant were then manually reviewed for appropriateness and relevance to the study. In addition to the bibliographic database searches, the author undertook a manual search of books and filed papers relevant to the research questions.

3.5 Review of the Literature about Links between Leadership & Improvement

‘The idea of causal consequences of leadership is provisional in that there is relatively little in the way of longitudinal evidence of its impact.’
(Hartley & Benington p109)

Whilst direct causal links between leadership and improvement remain largely unsubstantiated in the literature, it is important to take into account evidence which suggests an indirect relationship. Buchanan et al (2007) assert that,

‘Numerous factors potentially mediate the links between “better leadership” and “better care”’ (p251)

and cite Mannion et al (2003) who suggest that some of these factors in healthcare include cultural dimensions such as management team stability; organisational receptiveness to change; organisational politics and the scope and timing of the change agenda. On the basis of the literature review undertaken, the concept of culture as a mediating factor between leadership and improvement is explored in the next section.

3.5.1 Culture as a mediating factor

There is a growing body of evidence pointing towards the effect of leadership on the culture or climate of an organisation or team. This, in turn, has been shown to have an important impact on outcomes, and in some cases, on quality.

In a detailed investigation into this area, Ogbonna and Harris (2000) studied organisations in the private sector. They found that leadership style was not directly associated with organisational performance, but that it did affect organisational culture, which in turn had a significant impact on organisational performance.

Several other studies indicate a link between a leader's approach and the safety of care. Firth-Cozens & Mowbray (2001) reviewed the evidence and concluded that:

'One important way in which leaders affect patient care and satisfaction is through their management of teams.' (pii5)

A meta-analytical study by Hogan et al (1990) indicated that the prime cause of stress in the workplace is the 'boss', inferring that good leadership produces good teams with lower stress and higher quality patient care. Corrigan and colleagues (2000) found that team leadership ratings independently accounted for 40% of the total variance in client satisfaction amongst mental health patients. Another study within mental health services (Aarons 2006) found there was a relationship between the willingness of staff to adopt evidence-based practice and transformational leadership.

According to a report into public sector leadership by the government's Performance and Innovation Unit (2000), the climate within a team can account for 30% of a team's performance, and the leader has a critical influence on this team climate, with up to 70% of the climate being influenced by the leadership style adopted in the team.

Leggat and Dwyer (2003) completed a review of the literature on factors associated with high performance in healthcare organisations and other industries. Unsurprisingly, leadership consistently emerged as a necessary factor for high

performance. More pertinent was that the difference made by leaders was specifically in the influence they could have on setting the tone for the rest of the team or organisation:

'The contribution that organisational leaders make to organisational climate, culture and team working suggested that effective leadership is an important prerequisite.' (p.11)

Powell (1995) showed the importance of leadership and culture in relation to performance outcomes in his examination of TQM as a potential source of competitive advantage. He concluded that the key to QI performance appeared to lie more with factors like leadership and organisational culture than in tools or techniques such as process improvement, quality training and benchmarking.

This reaffirms findings from research into high-performing teams (Larson and Lafasto 1989), which proposed a causal chain between improvement and leadership:

- To achieve an elevated goal or vision, change must occur;
- For change to occur, a risk must be taken;
- To encourage risk-taking, a supportive climate must exist;
- A supportive climate is demonstrated by day-to-day leadership behaviour

Firth-Cozens and Mowbray (2001) cite studies from the airline industry (Chidester and Helmreich 1991) which show a correlation between airline captain behaviour and the number of crew errors. They conclude:

'It therefore seems that leaders are able directly to affect the safety of their teams' actions and outcomes—an extremely important finding for patient care.' (pp ii3–ii7)

While healthcare contexts vary enormously, the delivery of critical care is an area where patient safety is of paramount importance. In their literature review into leadership strategies in critical care teams, Kunzle et al (2010) conclude that effective leaders play a *'pivotal role in promoting team performance and safety'*. (p.1).

Dickinson and Ham (2008) cite an established evidence base from high-reliability industries (e.g. Weick 1987; Reason 2000; Ojha 2005) which point to the role that leadership plays in shaping organisational culture, and the consequences of this for safety. In a healthcare context, Edmondson's much-cited work (1996) demonstrated a correlation between nursing team leadership, the quality of teamwork and staff willingness to record errors.

In a study of community health centres, Xirasagar et al (2005) discovered a significant association between transformational leadership and success in achieving organisation-wide changes in clinician behaviour.

One study (Shipton et al. 2008) produced evidence that leadership effectiveness can have an impact on a range of hospital performance measures. The research team examined relationships between perceptions of leadership effectiveness and measures from the Commission for Health Improvement (CHI), external Clinical Governance Review ratings and the number of patient complaints received. They found that the higher the rating of leadership effectiveness, the more highly each healthcare

organisation was rated. Shipton et al. suggest that although they are unable to attribute causality from their study, an interesting link is evident between leadership and performance:

'it may be that leaders influence performance outcomes to the extent that they shape employees' collective belief that patients need to come first. Perhaps the relationship between leadership and performance in a health-care environment is mediated by some factor of climate that reflects a universal determination to achieve high standards of patient care. '(p. 439)

As these examples from the literature show, there is sufficient evidence from a range of perspectives to support the assertion that leadership and culture are both associated with effective and sustainable quality improvement. When the literature is further scrutinised, some commonalities begin to emerge, defining and describing the type of leadership and cultures which foster enhanced quality or performance. It is worth rehearsing these here, as the evidence suggests an important relationship between these two factors and quality improvement. In Schein's (1985) words:

'Leadership and culture are so central to understanding organisations and making them effective that we cannot afford to be complacent about either one' (p.327)

Accordingly, the next two sections present insights provided by the literature into the type of leadership and the type of culture which appear to be associated with improvement.

3.5.2 Type of leadership associated with improvement

An investigation of leadership effectiveness necessarily veers into the oft-debated realm of leadership style. Much has been written about leadership style over the past several decades, since the emergence of contingency theories of leadership in the 1950s, as outlined in Section 2.2. The fundamental belief that leadership styles can all play their part under the appropriate circumstances is still prevalent within the literature. However, this does not necessarily take us much nearer to a workable model of leadership specifically for improvement, as highlighted by Leggat (2003), commenting on high performance in healthcare organisations:

‘There is limited agreement on the leadership style that is most effective, perhaps reinforcing a contingency viewpoint’ (p.10)

Leggat goes on to cite several different studies (Lowe et al. 1996; Waldman et al. 2001; Yousef 2000) in which transformational, charismatic and consultative leadership are respectively found to have positive associations with improved performance. The lack of consistency in this regard does indeed suggest that contingent leadership, involving aspects of all these styles at different times, may be a more fruitful line of inquiry. Where better consistency does emerge is in relation to transactional leadership, which fails to be associated with improvement across several studies, (Lowe et al. 1996; Waldman et al. 2001) and in some cases, appears to be negatively correlated with enhanced performance. (Ogbonna & Harris 2000).

Edmondson’s (1996) study into error reporting demonstrated that in nursing teams led in a dictatorial and hierarchical manner, fewer medication errors were recorded. In

discussing this study, Firth Cozens & Mowbray (2001) summarise that *'repressive and dictatorial regimes are almost bound to produce data which are less than accurate'* (p.ii5) because staff are less inclined to admit mistakes. In short, this kind of team leadership results in higher levels of unsafe or poor quality practice, and is contrary to leadership for quality improvement.

This is echoed by Firth Cozens and Mowbray (2001), who reviewed the evidence on importance of leadership in healthcare. They drew on Chidester et al's (1991) study mentioned in the previous section, indicating that error levels among airline crew were lowest when the captains were *'warm, friendly, self-confident and able to stand up to pressure'*. (p.ii4) Higher error levels were associated with airline captains who typically behaved with *'arrogance, hostility, boastfulness or being dictatorial'*. (ibid) This study, more than recent ones, focuses on the importance of leader personality type and how this impacts upon culture, and therefore performance. From this perspective, leadership can become defined as a very individual and personal matter, arguably underlining the trait theory of leadership.

Whilst a case for the importance of individual characteristics in leadership effectiveness can be made, there are considerable drawbacks to considering leadership for quality improvement as being vested primarily in an individual. Some of these are borne out in the literature. For example, in Holmboe et al's (2003) taxonomy of the characteristics of the physician quality leader, he notes:

'One key insight was substantial heterogeneity in the roles and characteristics of physician leaders involved in quality improvement efforts.' (p.294)

In a similar vein, Locock (2001) concluded that previous definitions of physician leaders had been oversimplified, tending to over-emphasise the individual characteristics of opinion leaders and overlook the importance of that leader's linkage with others within the system, especially with non-physicians. Holmboe et al, (ibid) supported this finding, asserting that a team approach was the bedrock of successful patient care, and implying that the concept of 'team' was crucial to the process of leading quality improvement.

At the heart of this evaluation study is an investigation into the enactment of leadership by individual THF Award Holders. This remains centrally important to the research question, in order to understand what individual leaders can do to optimise improvement of services. However, this perspective needs to be tempered with an appreciation that the concept of 'leader as individual' is likely to provide only a partial answer to the question of leadership's role in improving services. Issues relating to organisational culture and team climate will also need to be taken into account, as illustrated in the next section.

3.5.3 Type of culture associated with improvement

From Ogbonna et al's work, (2000) 'innovative' and 'competitive' cultures seem to be associated with superior organisational performance. These are typically outward-

looking cultures where striving for excellence is the norm, a strong focus on outcomes is the main driver, and where risks in pursuit of improvement are encouraged.

Within a healthcare context, in a study of the role of leadership and culture in hospital-based QI, findings by Parker et al (1999) suggest that:

'A culture emphasising innovation and teamwork provides an important foundation for implementing a QI initiative.' (p. 1278)

The themes of innovation and teamwork from these studies resonate with the notion of developing a culture where trying new things is the norm. Experimentation is encouraged; risk-taking is viewed positively; mistakes provide learning; improvement is a core team activity and individuals are supported to excel by those around them.

Work by Choi and Behling (1997) classified the various orientations that top managers take toward QI initiatives. Defensive and tactical orientations were shown to be largely short-term-oriented, lacking long-term planning and vision. With the converse approach, a developmental orientation, management used the improvement work as a vehicle to develop the organisation's culture and to focus not only on current performance but also to position the organisation for the future. Choi and Behling proposed that long-term success could only be realised when top managers operate from the developmental orientation.

Leggat's (2003) summary of her literature review sums up the array of evidence on the role of culture on performance:

'A non-punitive organisational climate, with a participative team-based culture, in which members have developed sufficient trust and

psychological safety to constructively question behaviours and discuss mistakes openly, supported by a decentralised, participative structure is identified as an enabler of high performance.’ (p.15)

The evidence trail leading to this conclusion is circuitous, but the implication is clear. If these are the cultural factors which pre-dispose a system to achieve and sustain improvement, it would seem that a core role of leadership in that system is to nurture and foster such a culture.

An increasingly common term in the leadership literature is one which appears synonymous with the leadership required to create a ‘non-punitive, participative and team-based’ culture. Various terms ‘engaging leadership’, ‘empowerment’ or ‘inclusive leadership’, it is discussed briefly below, to highlight its potential relevance to the research questions of this study.

3.5.4 Inclusivity in Leadership

Inclusive leadership, whereby staff are involved in decision-making and problem-solving, has been shown to be associated with better outcomes. Church (1995) researched links between leadership behaviours, service quality and organisational performance in the airline industry. In his work, behaviours were described as manifestations of leadership values, such as teamwork and empowerment. For example, for teamwork, a related behaviour might be described as ‘Work to ensure that all team members fully understand each other’s roles’ and for empowerment, the behavioural descriptor was ‘Delegate authority to enable direct reports to make decisions and take action in a

timely manner'. Church found that there was an empirical link between leadership behaviours (as rated by people they managed) and organisational performance and service quality. In particular, he found that empowering leadership behaviours were positively associated with better customer service:

'the more managers were able to relinquish authority and decision-making to their direct reports, and encourage them in their skill development and problem-solving abilities, the more satisfied were their customers' (p.29)

As part of his study of the TQM literature to explore the role of leadership in TQM, Lakshman (2006) reviewed a range of case studies. His conclusion from this was,

'organizations that successfully manage quality tend to have leaders that can effectively involve people at multiple levels in the organization and motivate them to participate in, and as, teams in the management of quality.'(p.47)

Within an NHS context, Bradley and Alimo-Metcalfe (2008) investigated whether and how leadership contributed to the effectiveness of 24-hour mental health crisis resolution teams. Data reported by team members showed that the only significant factor which was positively associated with improved team performance was the level of 'engaging leadership' perceived by the team members. An output from this study was a common set of features associated with the leadership of teams achieving improvements to services (i.e. providing effective alternatives to hospital admission.)

At first glance, Bradley and Alimo-Metcalfe's list appears to resemble several transformational leadership frameworks. However, with deeper consideration, an

important common thread distinguishes it from other such lists. All aspects emerging as key features to improving performance relate to 'how' the leader does things rather than 'what' the leader does. It is less about the transformational leader as individual hero/ heroine and more about the degree to which their style and approach is inclusive of other stakeholders in the process of developing vision and direction, sharing problems and co-developing solutions.

For example, most lists of leadership competences mention 'creating a vision' as a core part of the leadership role. But in this instance, the key to improved quality outcomes for the crisis resolution teams is not the creation of the vision as a task in itself (which would be considered a 'leadership capability' in Bradley et al's terminology), but the fact that this vision is shaped, shared and agreed by team members, who consequently have a strong sense of ownership in it.

Similarly, in addressing organisational 'top-down' changes, the teams showing most improvement in productivity were led in a way which developed a 'collective team response' to these changes, and a jointly agreed way of dealing with them. 'Leading Change' is a core aspect of any leadership role, mentioned by almost all leadership frameworks. However, the emphasis on how others will play a part in shaping (not just implementing) change is distinct in the concept of 'inclusive leadership' when compared with the spotlight more commonly being placed on what the leader will do to bring about change him or herself.

The concept of inclusiveness in leadership resonates clearly with earlier transformational models of leadership (e.g. Bennis (2000), Kouzes & Posner (1998)),

but seems to emphasise the importance of 'others' as at least equal to, and arguably greater than, that of the individual leader, as proposed by distributed leadership models. This signifies a tacit but potentially crucial shift in where leadership for improvement is deemed to lie (i.e. spread across a diverse range of people rather than in a few elite individuals).

The differences between leadership approaches defined in the literature can appear subtle, but could be critical in terms of improving the quality of patient services. Analysis of Bradley and Alimo-Metcalfe's (2008) categories suggests a move away from a leader who is clearly in charge, in control and who knows all the answers, to one who sees his or her role as facilitating others to contribute. This entails a mindset shift in the leader from 'I am centrally important to this work' to 'I have a unique part to play in this work, and so does everyone else.' The leader's role then moves from being centred on the importance of his or her own individual actions to facilitating everyone to make their personal contribution. Necessarily, this must be accompanied by a willingness to delegate and pass power, authority and autonomy to others.

3.5.5 Summary

As John Øvretveit (2008) pointed out in his review of the literature, it is indeed a long journey to explore the causal links between an individual leader's actions and the eventual and ultimate impact on quality outcomes. The route through this literature initially appears to involve many dead-ends and partly-trodden paths, with no clear navigation channel connecting the roads together.

There is limited evidence about the nature and extent of links between leadership and quality improvement, particularly in an NHS context. Certainties in this field therefore remain a distant prospect, and perhaps an unrealistic aspiration, given the subject matter. However, there is a growing body of evidence which points in a similar general direction. It suggests that leadership for improvement is:

- Culturally-sensitive. Culture plays an important role in quality improvement, and leadership and culture are inter-dependent;
- Facilitative. It is linked less with striving to know all the answers and more with engaging others to make their personal contribution;
- Team-based. It has a direct impact on teams and their ability to improve the quality of what they do;
- Inclusive. The significance of personal style and preference has an undeniable impact, but elite, ego-centred leadership appears to be contra-indicated for improvement.
- Collective. To become embedded in the culture, the focus of improvement is on groups of individuals creating collective effort.

Whilst lessons and messages from the literature are becoming increasingly congruent, they remain non-specific and therefore difficult to usefully apply in a context such as the NHS. This study aims to make a modest but important contribution to understanding how leadership behaviours are associated with improvement to health services. In doing so, the intention is to gain insights which can be of both theoretical interest and practical use.

CHAPTER 4 RESEARCH FOCUS AND AIMS

4.1 Introduction

The previous chapters have described the context of this study in terms of the commissioning client's agenda, the policy environment and in relation to evidence emerging from the literature. The aim of this chapter is to clarify the precise focus of the research study, highlighting the key aspects of leading NHS improvement which appeared to require further research to address identified gaps in the literature. It also outlines a key area which was excluded from the research, with the reasons for this.

4.2 Classifying 'Types' of Improvement Work

When considering the practice of leading NHS improvement, one of the most obvious questions to arise is 'what is meant by improvement?'. Does it mean ambitious transformation of services, or everyday changes to the way things are done, which makes things generally better in an organisation? This question provided the starting point for refining the focus of this study.

The quality improvement literature is not short of examples of case studies of service improvement, and description and analysis of the relative merits of different improvement tools and techniques. (Boaden et al. 2008)

However, the literature appears less fruitful in addressing the problem that quality improvement work varies enormously, from very local and small-scale changes, to

whole-system redesign, with a wide range in between. This raises a question about how pieces of improvement work are similar or different.

Some improvement research uses disease groups as the primary organising principle (Shojania et al. 2005). Other approaches adopt the nature of the intervention as the basis for differentiating improvement work. An example of this is Leatherman and Sutherland's work (2007) which develops a taxonomy of quality-enhancing interventions. This typology is discussed in more detail in section 5.2.1, and encompasses the categories of Patient-Focused interventions, Regulatory interventions, Incentives, Data-driven & IT-based interventions, Organisational interventions and Healthcare delivery models. The purpose of this typology was to systematically categorise evidence about quality improvement interventions, with a view to guiding the design and implementation of quality improvement by policy-makers and managers.

In their assessment of lean methodologies employed in NHS organisations, Burgess et al (2010) developed a 'taxonomy of Lean', intended to be a clear set of distinctive approaches. However, the focus is purely on Lean approaches to improvement as opposed to improvement more broadly, and there is no explanation of the process used for categorisation and classification, so the usefulness of this work is limited in respect of this study.

When developing a typology of improvement for the purposes of this study, the most pertinent recent contribution to the literature appears to be Walshe's (2007)

discussion of the need for theory-driven evaluation of quality improvement. His analysis defines the four main variables of QI as being:

- Content: the situation, setting or organisation in which the QI intervention is deployed;
- Context: the nature or characteristics of the intervention itself;
- Application: the process through which the intervention is delivered;
- Outcomes: the results of the intervention.

This analysis moves away from high-level classification categories, into the detail of the nature and context of a quality improvement, for the purposes of evaluating it. Further development of these ideas is not currently evident in the literature.

In summary, it can be seen that few attempts have been made to develop a taxonomy of quality improvement, and the varying purposes of those in existence means that their application is not easily transferable. The emphasis on analysing improvement type in this study is in order to investigate the leadership process associated with its implementation. Existing taxonomies from the literature provided a starting point for this analysis, but it was clear that the development of a new typology, specifically for investigating improvement leadership, would be a necessary and intrinsic part of the study.

Furthermore, the development of such a typology would, in itself, be a significant contribution to current thinking about improvement, which has thus far tended to cluster all types of improvement work into the vastly broad and all-encompassing term 'improvement'. For practical purposes, an instrument which allows 'improvement' to be differentiated into various strands, types or varieties, has the potential to bring

pragmatic meaning and application to what otherwise risks becoming an overly-conceptualised management practice. Clarifying 'what is meant by improvement?' by means of a classification instrument, therefore became a central strand of this study.

4.3 Behavioural Focus on Leadership for Improvement

From the masses of literature about leadership, only a small fraction addresses the issue of what difference effective leadership makes, and how it makes a difference. Within the subset of the literature which focuses on the impact of leadership, there appear to be only one or two studies which specifically consider how the behaviours of leaders affect the outcome.

To reiterate points made in Section 3.3, at the outset of the study, two systematic literature reviews (Ovretveit 2008; Ovretveit 2009) provided an up-to-date overview of the evidence concerning the effects of leadership on service improvement. They ascertained that there existed very little strong evidence, empirical or otherwise, of the impact of leadership on improvement efforts. From the evidence base scrutinised by Ovretveit, the nature of leadership required for effective improvement was unclear; the critical factors which explain how leadership for improvement might be contingent on its context were ambiguous; and how leadership for effective QI might be developed was practically uncharted territory. Indeed, Ovretveit highlighted the difficulty in identifying the links between the two concepts of leadership and improvement, and confirmed the lack of evidence of direct causality:

‘It is a long causal link from a leader’s actions to outcomes’ (Øvretveit 2008 p.25),

While some literature provides guidance to leaders about generic management steps to take in leading improvement, a clear gap in the evidence appears to exist in understanding exactly what leaders do and how they behave when they are attempting to improve services.

One of the only studies which explicitly investigated leadership behaviours was from the airline industry (Church 1995). Church found that there was an empirical link between leaders’ behaviours (as rated by people they managed) and organisational performance and service quality. In particular, he found that empowering leadership behaviours were positively associated with better customer service:

‘the more managers were able to relinquish authority and decision-making to their direct reports, and encourage them in their skill development and problem-solving abilities, the more satisfied were their customers’ (p.29)

However, similar studies in other settings were not evident in the literature base, and little was evident about how leadership behaviours might be associated with improvements to health services.

The focus on *behaviours* adopted by improvement leaders was of particular interest to The Health Foundation in respect of its continuing investment in leadership development activities. In commissioning leadership development, the organisation

wished to invest in developing skills and behaviours which were, as far as possible, believed to be effective.

A contemporary and health-specific consideration of the merit of considering leadership behaviours is offered by Hartley and Benington (2010):

‘a focus on behaviours helps to make explicit what the practices are that contribute to effective performance and help to anchor performance in real, observed practices.’ (p.80)

This evidence gap, combined with The Health Foundation’s particular interest in the area led to a specific focus on the behaviours of leadership within this study.

4.4 Addressing the Evidence Gap

It was important at an early stage to clarify the precise areas of the evidence gap which this research intended to address, and also to be clear about any key areas which were being excluded from the study.

Within the academic context described, this research did **not** set out to identify a causal relationship between leadership and improvement. As the literature review makes clear, such a direct causal link has not, thus far, been theoretically or empirically established, and any such link is subject to a wide range of interceding contextual factors. Rather, the aim of the research was to explore associations between participants’ reported leadership behaviours and the improvements they were reportedly able to achieve. Furthermore, given the wide-ranging scope of

improvement work, the research specifically investigated the extent to which different types of improvement are associated with different leadership behaviours.

4.5 Exclusions from the Research

Whilst the improvements made by NHS leaders were a central line of inquiry for the researcher, the study did **not** include an assessment of whether the outcome of the improvement work was successful or not. The actual outcome of the improvement work, defined in terms of being a 'good' or 'poor' outcome was deliberately excluded from the study at the outset. There were several reasons for this.

Firstly, the assessment of whether or not a piece of improvement work had achieved its intended impact, would, in itself, require some sophisticated data-gathering from a wide range of sources before a judgement could be made. Who would make the final judgement about the success of an improvement? Any such judgement would vary depending on many different perspectives. For instance, improvement work to reduce waiting times in A&E may be successfully achieved from the perspective of the departmental manager, if there are no breaches to the waiting time target, but this same outcome may be perceived as a poor one to a clinician having to prematurely transfer a patient before the necessary diagnostic test results are complete. Patients themselves would have yet more perspectives on the outcome, depending on their own circumstances and viewpoint. A wide range of measurement criteria would also come into play if an objective assessment of improvement outcome was to be required. Given the wide range of perspectives and the various methods of measurement to be taken

into account, the arena of assessing the impact of improvement work is highly complex, and there was not scope within this study to include it.

Secondly, the focus of the study was to better understand the nature of leadership behaviours used in the NHS when attempting to bring about improvement. Were some aspects of leadership behaviour more important or significant than others? If so, which aspects seemed to matter more than others? Such questions, which underpinned the study, bore no relevance to the ultimate outcome of the improvement work. The research question being addressed was **not** 'which leadership behaviours are most likely to lead to successful improvement work?'. Whilst this would be a valid and interesting research question, it was distinct and separate from the aim of this commissioned study. The researcher was interested in the nature of the improvement work, and what it was trying to achieve, only because this may be linked in some way to how the NHS leader behaved in enacting it. Whether the work achieved what it aimed to achieve was beyond the researcher's sphere of concern for the purposes of this study.

Thirdly, linking improvement success with leadership behaviours would imply a direct link between the way a leader behaves and the success of an improvement. The literature review has already illustrated that such a direct link is not apparent in the evidence base, and that the relationship between leadership and impact seems to be mediated by organisational culture. In addition, there are many extraneous factors which also come into play in determining the extent to which a piece of improvement work is deemed 'successful' or not. To control for these wide-ranging factors would arguably be unrealistic in organisational research, and were it possible, would certainly fall beyond the scope of a focused research study such as this one.

4.6 Research Aims

Based on the literature review undertaken, the study which forms the subject of this thesis focused on the following research aims:

- To develop an approach to measuring and classifying different ‘types’ of improvement work;
- To identify leadership behaviours associated with service improvement in the NHS.

Each of these aims grew out of a gap in the current academic research, as identified in the previous section. The first aim was a response to the apparent lack of available methods for differentiating ‘improvement’ activities being undertaken in healthcare. The second aim was to focus on understanding which leadership behaviours are linked to improvement in the NHS, with a particular emphasis on understanding what NHS leaders do when leading service improvement work.

Whilst relatively modest, these two core research aims each addressed a specific gap in current knowledge and research, allowing a deep, focused inquiry into a particular aspect of a broad and wide-ranging evidence base. The study therefore offered potential for a small but significant contribution to the literature relating to how leadership behaviours and service improvement are linked in the NHS.

CHAPTER 5 METHODOLOGY

5.1 Methodology Overview

The research aims, as outlined in the previous chapter, guided the researcher in the selection of research methods aimed at achieving these ends:

- To develop an approach to measuring and classifying different ‘types’ of improvement work;
- To identify leadership behaviours associated with service improvement in the NHS.

Methodologically, the achievement of the two research aims was likely to involve exploring each aim separately and then, at a further level of analysis, investigating how the two lines of enquiry might link together to provide insights into the practice of leading NHS improvement. Each stage of the research required careful consideration in order to ascertain the most appropriate research methods.

This chapter firstly provides an outline of the methods to be used for each stage of the study: i) the typology development; ii) the collection of improvement data and iii) the identification of leadership behaviours. The methods used for each of these research stages is then described in detail. Finally, a summary of the whole research methodology is provided, pulling together the various methods used in the study into a methodological diagram, with brief annotation for purposes of clarity. This can be seen at the end of Section 5.6.

5.1.1 Ethics and consent

As a prelude to the following discussions about research methodology, it is pertinent to clarify issues of ethics and consent which were relevant to the study. The four principles of ethical research identified by Diener & Crandall (1978) will be considered :

- Avoiding participant harm
- Ensuring informed consent
- Avoiding invasion of privacy
- Avoiding deception

The likelihood of *participant harm* in this study was low due to the nature of the research focus. A conscious process of seeking to protect participants from harm was nevertheless an important consideration, and in this case related to potential psychological harm rather than physical harm. The nature of the study was to engage participants in questioning and dialogue about their own behaviours and the impact their actions had on teams, organisations and services. It could be argued that this kind of dialogue is a common aspect of a leader's work, through reflective practice, peer review, appraisal and ongoing personal development processes. However, it was important for the researcher to be sensitive to the potential for participants to personalise the issues being discussed, and through reflection during semi-structured interviews, for instance, to come to new realisations about the way they themselves behave as a leader. Subjective judgements about the relative merits of different approaches to leading improvement did not form part of the intended research methodology, yet it was possible that participants might perceive that their account of

their leadership behaviour was in some way being judged. It was important for the researcher to clarify and reassure participants that this was not the case, and to explain that any measurement of participant data would be against objective measurement instruments and frameworks, and not against the researcher's subjective point of view.

In terms of *ensuring informed consent*, the study was not commissioned as an academic piece of research, but rather as an applied piece of evaluative work, for the specific purposes of The Health Foundation. All THF Award Holders, and therefore all respondents within the study had, as a requirement of their Award funding, provided written consent to participating in any activities commissioned by THF which contributed to evaluating the THF leadership schemes. As such, informed consent was already in place at the outset of the study, which provided clearance under a broad evaluation framework. Despite this informed consent being in place, as May (2001) points out, this needed to be accompanied by an understanding of the aims and processes of the research. The researchers worked with THF to ensure that email notification about the study was given to all Award Holders at its outset. In addition, the author met with several groups of Award Holders at alumnus and THF-related events during the summer of 2008, to provide details of each stage of the study, and to foster interest and engagement with the proposed methods. At each stage of involving individual Award Holders face-to-face in this study, a verbal overview of the work was provided, including a description of how the results of the study would be used.

It should be acknowledged that even the best intentions can fall short of an ideal approach to informed consent. Homan (1991) highlights how difficult it is to give prospective participants absolutely all the information they might need to make an informed decision about their involvement in the research. For example, in this study, it proved difficult to ensure that every single one of the potential participants had exactly the same overview of the research work, as the verbal presentations of the intended approach were provided to different groups of THF Award Holders on different occasions, often on an opportunistic basis, depending on when groups of them were accessible. A combination of rigour, consistency and pragmatism was therefore necessary.

In relation to *avoiding invasion of privacy*, all possible steps were taken during the research to protect the identity of respondents, by means of using identifier numbers. Access to the names of participants taking part was limited to members of the research team involved in arranging or undertaking the data gathering. The staff used for transcription duties were from an external agency, employed under an agreement about maintaining confidentiality relating to the transcribed data. The Q-Sort data were gathered at an open Alumni event where a participant list was available, but each participant's Q-Sort dataset was given an identifier number as soon as it was collected, and became an anonymised part of a wider dataset from a total of 50 people. The confidentiality approach throughout the study was designed to ensure that neither THF, nor wider stakeholders, could trace data back to individual Award Holders.

In addition, all participation in the study was voluntary, with an invitation offered to all THF Award Holders, but with no obligation to take part. The researcher's introductory comments before all interviews covered issues of data confidentiality and use of the data gathered.

Finally, the issue of *avoiding deception* is one with apparently limited relevance to this study. Nevertheless, Bryman's (2008) observation that '*it is rarely feasible or desirable to provide participants with a totally complete account of what your research is about*' (p.125) is worth some scrutiny in this respect. The multi-faceted nature of this study, which formed a smaller part of a wider study, reflected the numerous aims and objectives of The Health Foundation in commissioning the work. These aims ranged from an intellectual interest in extending the research evidence in the area to a pragmatic need to assess the optimal way of investing in future leadership development. The time necessary to outline all the purposes of the study to each and every participant in the study was prohibitive within the parameters of the work. A pragmatic approach was therefore taken by the researcher, ensuring that at the outset of all initial contacts with study respondents, the opportunity was provided for clarification about any of the purpose of the work. Unsurprisingly, some respondents were more interested in the detail of the rationale for the study than others. The principle used was that any question asked about the study would be answered fully, but that this would be when requested rather than automatically provided to all respondents.

5.1.2 Methods for Developing an Improvement Type Measure

Given the emphasis of the first research aim on classifying improvement type, it was clear (as outlined in section 4.2) that the development of a new typology, specifically for investigating improvement leadership, would be a necessary and intrinsic part of the study. Without this, given the paucity of existing suitable frameworks, the study could not proceed. Taking a broader view, the development of such a typology would not merely support the aims of this research study, but in itself would also contribute original thinking and analysis to the field of improvement in healthcare. Thus, the development of a typology was necessarily the first stage of the work.

The methods chosen for developing such a typology were deliberately varied, to ensure that the work drew on theoretical and practical perspectives on improvement. Firstly, a trawl of the literature focusing on improvement type would help to position the typology development in the context of other similar and relevant work. Secondly, a review of the documentation held by the client, THF, would shed light on the kind of improvement typically being undertaken by their Award Holders in the NHS. Thirdly, the researcher envisaged an iterative process of developing the typology, which involved combining the literature and documentary review work with empirical testing of concepts and potential instruments with a population of NHS improvement leaders. This would enable a typology based on theory and documentary evidence to be piloted in practice and refined as necessary.

This three-stage methodology for developing the typology provided triangulation between methods. In Denzin's (1977) terms, triangulation can be undertaken in

relation to data, research method, investigator and theory. Within this categorisation, the approach to developing the typology would be classed as triangulation by data source, combining data about improvement type from the literature with data from Award Holders and from NHS improvement leaders.

Triangulation is defined by Bryman (2008) as *'the use of more than one method or source of data in the study of a social phenomenon so that findings may be cross-checked'* (p.700). This cross-checking would optimise the typology's fitness-for-purpose within the study and enhance its potential utility, reliability and validity for broader application.

The extensive process of developing the typology using these three methods is detailed in Section 5.2.

5.1.3 Methods for Collecting Improvement Data

A substantial amount of data was needed about the types of improvement work undertaken in the NHS. In order to provide sufficient detail to allow differentiation across the data, this would need to include detailed accounts of what the improvement was trying to achieve, as well as full descriptions of its scope and relevant contextual factors.

It was possible that such data, in the form of examples of NHS improvement could have been derived from written case studies described in a range of texts and journal articles. (e.g. detailed vignettes about examples of NHS innovation in Fitzgerald et al (2006)). Methodologically, such examples would have been easy to access. However, it

was crucial that the examples used in the study were each associated with a descriptive account of how the improvement was led and implemented, in order to meet the dual purpose of the study. Thus, the data about the improvement and the data about leadership behaviour to enact the improvement needed to relate to the same examples or case studies. In addition, the Health Foundation, commissioning this study, determined that an intrinsic part of the work should be to investigate how their Award Holders enacted improvement in services. This meant that the data about NHS improvement needed to be derived from the THF Award Holders. The methodological options available were therefore documentary review, paper-based surveys to Award Holders, and interview-based data-gathering.

Undertaking a documentary review of Award Holder application forms was deemed a pragmatic first step in gleaning some of the requisite data about types of improvement work. The application forms included a section for the applicant to describe an improvement they were interested in pursuing in their area of the service. In addition, each Award Holder had been required by THF to have completed a project report at the mid-stage and at the end of their leadership scheme, detailing what improvements they had made and what they had learned about their leadership from this. This combination of documents seemed to be a useful starting point for gathering data about the nature of improvement work undertaken by Award Holders, and also provided access to the individuals for further verbal clarification which may be required. Further details about the documentary review are provided in Section 5.2.1.

A paper-based (or electronic) survey to Award Holders was considered for the purposes of collecting improvement data, but was ruled out. Surveys have been

categorised by Ackroyd & Hughes (1983) as factual, attitudinal, social, psychological and explanatory. For use in this study, the purpose of a survey would be as a straightforward fact-finding exercise, to gather data about improvements undertaken. However, it soon became apparent that such a survey would be duplicating the request for information made by the project report forms, to which the researcher already had access. To ensure maximum cooperation from the population of Award Holders taking part in the study, it was important to use their input judiciously, and avoiding duplication in data-gathering was an obvious example.

The third methodological option for gathering improvement data was to interview Award Holders about the improvements they had made. This would provide a richer narrative account than the documentary review, and would also allow for the improvement to be described in its own context, which may have proved to be an important consideration within the study as it unfolded.

In pragmatic terms, the decision was made to proceed with the documentary review as an expedient first step into gathering improvement data. The survey was ruled out for the reasons given above, but the interview was retained as a potentially useful method for undertaking further investigation based on initial data coming out of the documentary analysis. It was decided to review the extent to which the interview method was needed once there was more clarity about the quality and quantity of data available in documentary form.

5.1.4 Methods for Identifying Leadership Behaviours

Whilst it was unclear at the outset of the study whether interviews would be necessary for gathering improvement data from Award Holders, it was apparent that this would be the optimal method of collecting data about Award Holders' leadership behaviours.

This data needed to be totally contextual, providing not just an account of generic leadership behaviours, but much more specifically, details of exactly which leadership behaviours were used, and how, to enact the improvements to services. Some research methods commentators contend that all interviews are contextual to some extent. For example, May (2001) offers a viewpoint that,

'the data derived from interviews are not simply 'accurate' or 'distorted' pieces of information, but provide the researcher with a means of analysing the ways in which people consider events and relationships and the reasons they offer for doing so.' (p.144-5)

In this study, a crucial purpose of the data was to investigate not just how NHS leaders behave in the workplace, but what the relationship is between the improvements needed in services and their enactment of leadership to effect these improvements. Hence, an account of leadership may indeed be viewed as 'accurate' or 'distorted', but that is not the pertinent point; more relevant is how that account of leadership behaviour relates to the process of improving services.

More details about the interviewing methods used for identifying and collecting data about leadership behaviours is provided in Section 5.3.

For triangulation purposes, it was decided that a more objective research method would complement the subjective nature of data gathered from Award Holders about their own leadership behaviour. The research methodology was designed so that a random sample of the Award Holder population were given the opportunity to express their views about the relative importance of different behaviours in leading NHS improvement. Whilst still producing self-reported data, this method was more objective than the interviews, because it sought views about what NHS leaders should do (i.e. normative data) rather than about what NHS leaders actually do (i.e. descriptive data).

The method selected for this aspect of the study was the Q-Sort methodology. The Q-Sort was chosen because it combines the subjective aspects of qualitative methodology with the objectivity of a more numerate, quantitative approach. The method facilitates conversion of qualitative data into quantitative form and so straddles the interface between qualitative and quantitative research, combining the respective strengths of both (Dennis and Goldberg, 1996).

Details about how the Q-Sort methodology was used as a method for identifying leadership behaviours are provided in Section 5.5.

5.2 Development of an Improvement Type Measure

The conclusion from Ovretveit's review of the literature in 2009 clearly articulated the significance of understanding the type of improvement being implemented by leaders when attempting to identify leadership actions which may be relevant:

'The only generalisation which can be made about leadership actions which are, or are not, effective for improvement is that it depends on the type of improvement and situation.' (Øvretveit 2009, p.74)

This underlines how crucial it is to clarify the type of improvement in question. The THF participants in this study were involved with NHS improvements spanning a very wide spectrum. For example, at one end of the spectrum, a participant might be making a relatively minor improvement in one department to the way in which operating theatre lists are organised. In contrast, another participant may be setting up a pan-London service for 'difficult to engage' clients, involving dozens of agencies from the statutory and voluntary sectors. What were the similarities and differences in the leadership behaviours needed to enact these changes, which were so different in nature? Did different types of improvements require different leadership behaviour sets, or were there commonalities which applied regardless of the nature of the intended change?

To explore these questions, and in line with the research aims of the study, it was imperative that the study use an analytical tool for identifying and classifying different types of service improvement. This would allow an investigation into whether or not different types of improvement work were associated with different leadership behaviours. The lack of typological frameworks available for this purpose has been outlined in Section 4.2. Consequently, one of the early stages of the study was to develop a suitable typology instrument, which was referred to as the Improvement Type Measure (ITM).

The development of the ITM was an emergent and iterative process, combining a quest for thorough, robust analysis with the pragmatic demands of the client and the flexibility necessitated by incomplete and limited initial documentary data. The next section details this development process.

5.2.1 Documentary Review

At the outset of the study, the intention was to base the classification of ‘types’ of improvement work on a documentary review of the application forms and project reports submitted by participants on the various Health Foundation leadership schemes. The application forms gave an overview description, provided by the applicant, of the improvement work they wished to pursue during their time on the leadership programme. The project reports, submitted halfway through the leadership scheme, and on completion, were intended to provide a more detailed account of what improvements had been made, and what leadership learning had been derived during the scheme.

It was important to be clear about the purpose of reviewing these documents. As stated by Platt (1981), documentary research,

*‘can hardly be regarded as constituting a method, since to say that one will use documents is to say nothing about **how** one will use them.’(p.31, original emphasis)*

The research methods literature highlights many potential purposes of documentary review, including situating contemporary accounts into an historical context; providing

insight into how events occurred and why; for comparison with other data sources and providing material upon which to investigate further. (May 2001).

The last purpose in this non-exhaustive list most closely fits the purpose of the documentary review in this study, namely to provide an initial dataset about types of NHS improvement work, which could then be followed up and explored further. The intention was to use the documents to extract typical examples of improvements made. The primary purpose was to use these data to feed into the development of typology categories. A secondary purpose was to potentially provide a basis for examining actual case studies of Award Holders enacting their improvements, in behavioural leadership terms, later on in the study.

All the relevant documentation, for each separate leadership scheme, was reviewed, trawling for data which would be pertinent to classifying different 'types' of improvement work. From this, it became apparent that the level of detail with which different improvement initiatives were described varied enormously amongst the different schemes: some schemes were explicitly linked to service improvement projects identified by participants in their application, whilst others stated an intention or aspiration, identified in a relatively vague way, which was difficult or impossible to quantify. In addition, it was discovered that (for a variety of reasons internal to the THF) project reports had only been completed by a small minority of Award Holders. This meant that the extent of data about improvement type emerging from the documentary review was much more limited than had been envisaged. Nevertheless, some useful participant information about intended service improvements was recorded, as a basis for the typology development.

The most comprehensive taxonomy of improvements in healthcare available at this stage of the study was that emerging from the THF Quest for Quality and Improved Performance (QQUIP) research initiative undertaken by Leatherman and Sutherland (2007). This work included the development of a taxonomy of 'quality-enhancing interventions'(QEI) for healthcare, shown in Appendix 1. This QEI taxonomy was not specifically developed for the purpose of comparing different types of improvement work. Rather, its purpose was to provide categories of improvement as a basis for reviewing the evidence about each category in terms of the effect they have on healthcare processes and patient outcomes. Sutherland and Leatherman (ibid) describe it as '*a taxonomy to organize the available evidence of potential quality-enhancing interventions*'. (p.334)

There were some limitations to the QEI taxonomy in its usefulness for this study. The most evident drawback was a lack of description, either in the THF brochure which was created to disseminate it (Leatherman et al, 2008), or in the associated peer-reviewed paper (Leatherman & Sutherland 2007) as to how it was developed, and how the categories were derived. Had this detail been available, it might have provided a useful basis for designing the typology for this study. Nevertheless, the QEI taxonomy seemed a robust, current and relevant framework with which to begin the work on differentiating types of improvement work.

The data about THF participants' improvement work, which had been extracted from the documentary review, were analysed by the author using the classifications from Leatherman and Sutherland's QEI taxonomy (2007). This is referred to in Appendix 2. However, as noted in Appendix 2, reducing the data down into pre-determined

categories before it had been considered it in its raw form, seemed prematurely reductive, and the analysis proved inconclusive.

As an alternative approach, examples of intended service improvements drawn from the documentary analysis, were listed, and the author attempted to group them into categories of 'type' (as detailed in Appendix 2). Whilst this exercise differentiated the service improvement examples more effectively, it also highlighted the methodological drawbacks of attributing sometimes multi-faceted service improvements to one single 'type' category. In several cases, one improvement example would fall into several 'type' categories. It proved difficult (and potentially counter-productive) to be attributing such items to a single 'type' category, given their complexity. Other examples did clearly fit into a single type. The author's notes to research team colleagues, highlighting this as an issue, are shown in Appendix 2. It can be seen from these notes that at this early stage in the study, the documentary review had surfaced a key issue:

'It seems to me that many of the examples incorporate several 'types' and are more complex than a single dimensional typology would suggest.' (Appendix 2, p.1)

5.2.2 Complexity as an Organising Principle

At this early stage, it was apparent that the QEI taxonomy enabled the researcher to classify improvement interventions according to a range of domains (eg patient-focused; regulatory; data-driven interventions). However, the focus of this study, on leadership enactment of improvement, required a classification of improvement 'type'

which differentiated improvements in terms of their associated processes of enactment and implementation rather than merely on their domain.

What seemed clear was that the *nature* of the process required to implement the improvement potentially offered a more relevant basis for categorisation than the aim or domain of each service improvement. The researcher's thinking therefore moved from a conceptual notion of attributing service improvement categories into the realm of categorising real examples of service improvement.

The difficulties encountered by the researcher in attributing examples of NHS improvement to the single QEI categories had raised an awareness of an apparently important point. Many such examples were not uni-dimensional, so as to fit neatly into single categorisations. More typically, the examples involved various dimensions, and could be described as multi-faceted. For example, an improvement which aimed to reduce waiting times could be viewed as relating primarily to patient access. However, on further scrutiny, the way this improvement was planned involved seeking patient views, investigating staff attitudes to patient waiting and examining the patient pathways in order to uncover causes of long waiting times, prior to taking action on the basis of these initial soundings. What might appear to be a self-evident improvement aim on the face of it, is revealed as an altogether more multi-dimensional challenge than it at first seems, and could be viewed as a systems improvement rather than a process improvement. If the study was to robustly investigate improvement leadership, it was vital that any typology of improvement encompassed some of the subtleties of improvement work. The researcher was

convinced that these would remain opaque if uni-dimensional categories were used for classification.

The term adopted by the researcher to describe the multi-faceted nature of improvement work was 'complexity', and this concept was explored as an organising principle for the typology. The hypothesis was that the relative complexity of different types of service improvement work might affect the leadership behaviours required for realising the improvement. Hence, it seemed important that the Improvement Type Measure developed for this study should capture and reflect the relative complexity of a range of dimensions for each piece of improvement work.

In adopting the concept of 'complexity' as an organising principle for the typology, a caveat was required to clarify what exactly this constituted in the context of this research, for two reasons. Firstly, the term 'complexity' already featured prominently in the mainstream vocabulary of improvement science literature (eg Plsek & Greenhalgh 2001) at the time of the study, so it was important to distinguish the concepts. In addition, for any subsequent research involving the development of a typology based on a complexity principle, some guidelines for developing such an approach could be useful.

Addressing the semantic point, 'complexity' in the improvement literature often has its roots in the notion of organisations as 'complex adaptive systems', as described by Plsek & Greenhalgh (2001):

'A complex adaptive system is a collection of individual people with freedom to act in ways that are not always totally predictable, and

whose actions are interconnected so that one agent's actions changes the context for other agents'. (p.625)

Within this body of thinking, healthcare organisations are frequently described as being characterised by complexity, with implications for management and leadership. Such characterisations typically include aspects such as non-linearity, unpredictability, the importance of the relationships between parts of a system and the self-organising potential of such systems (Plamping 2010). This understanding of complexity is clearly articulated in the literature, but is not what is meant by complexity in the context of this study's typology work.

The meaning lent to the term 'complexity' by the researcher in applying it to the dimensions of an improvement typology was much more a lay interpretation of the word, based on its linguistic meaning. The classic definition of complexity is,

'the quality of being intricate or complex', with 'complex' described as 'made up of inter-connected parts'. (Collins 1986)

It is important to stress that within the researcher's conceptualisation of improvements being more or less complex, there was no implication that a more complex improvement was better than a less complex one. Judgements about the relative importance or significance of pieces of improvement work did not form part of the study: the complexity of an improvement was merely an objective measure to enable improvement data to be analysed.

The researcher's approach to developing a typology organised around complexity aimed to :

- 1 Explicitly acknowledge the nature of the phenomenon being classified as multi-faceted, meaning that it does not readily fit into a single classification category;
- 2 Use several dimensions for measuring the phenomenon, each of which allows the phenomenon to be assessed on a scale from very simple and straightforward (low complexity) at one end, to extremely intricate, difficult or complicated (high complexity) at the other end.
- 3 Express the overall classification or 'type' for the phenomenon as a multi-integer rating, to reflect the various dimensions measured.

Having decided on complexity as an organising principle for the typology, and clarified the rationale for this, the next stage was to develop an instrument which would be workable in practice.

5.2.3 A Matrix Approach

In order to accommodate the multi-faceted nature of the service improvements being studied, the researcher explored the concept of a matrix typology, whereby different levels of complexity could be represented through a range of dimensions, making up an overall typology framework. The next stage of work was to identify the most appropriate dimensions to include in such a matrix typology.

Based on the initial analysis of the documentary data, and from extensive experience of leadership development activities with a focus on improvement work, an initial set of dimensions was considered:

- Focus** what is the target group and scope of the improvement?
- Level** where, in structural terms, in the system or organisation is the improvement taking place? e.g. front-line, middle/ operational, top/ strategic, intra- / inter-organisational, national, international
- Process** how is the improvement being led? e.g. methods, tools, approaches

An initial 3-dimensional taxonomy model was mooted, based on Focus, Level and Process, with progression along each axis implying an increasing complexity, as shown in Figure 1.

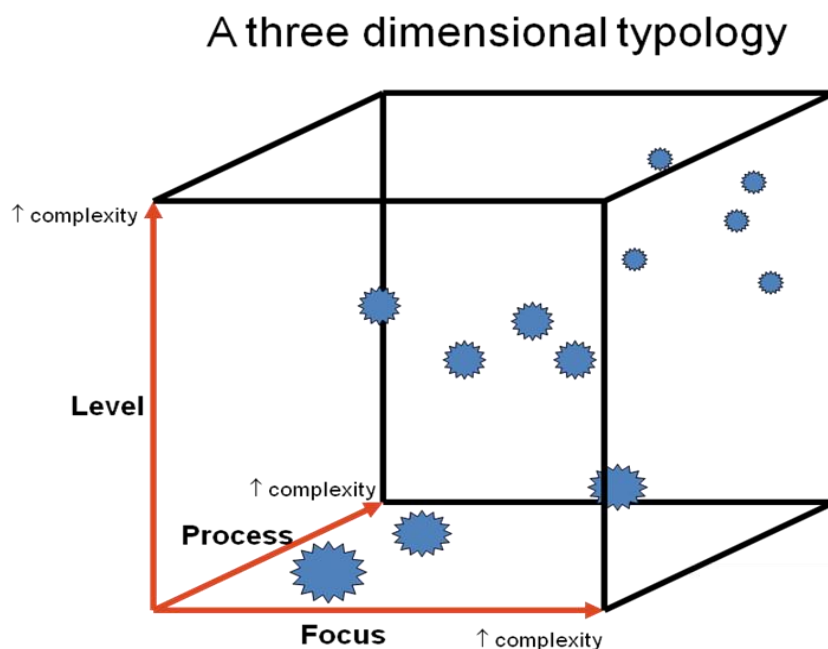


Figure 1. *First Draft of a 3-dimensional improvement typology*

The 'Focus' dimension was originally intended to encompass the number and type of patients involved in the quality improvement, and the nature of the intervention. The 'Level' dimension covered the level of the organisation at which the initiative was taking place, from single departments or intra-organisational linkages, through inter-organisational relationships, right through to national or international working. The 'Process' dimension encompassed aspects such as the number of stakeholders involved, degrees of resistance, and complexity of the change management process itself. The 3D model (Figure 1) was piloted in various parts of The Health Foundation, including with the Leadership Development Consultants and staff from within the Leadership Programme. There was an intuitive agreement with the basic model, and a high level of interest in the multi-faceted way of capturing diverse types of improvement work.

When referring to the quality improvement literature to inform the development of these dimensions, the most pertinent recent contribution to the literature was Walshe's (2007) discussion of the need for theory-driven evaluation of quality improvement. His analysis defined four main variables of quality improvement as being:

Content	the situation, setting or organisation in which the QI intervention is deployed;
Context	the nature or characteristics of the intervention itself;
Application	the process through which the intervention is delivered;
Outcomes	the results of the intervention.

Walshe's categories resonated to some extent with the Focus, Level and Process dimensions from the research team's internal analysis. Walshe's 'content' variable mapped onto the Focus dimension, with less emphasis on identifying the organisational setting, and more attention paid to the specific areas within the organisation which were subject to improvement.

The 'Level' dimension was not explicit and separate within Walshe's discussion, but instead was conflated into the 'content' category. The research team decided that it seemed relevant to retain a separate dimension to capture data about 'Level', as there was such a range of data about this from the early documentary trawl of application forms and end of award reports. For example, some improvements were happening very directly at the front-line of service delivery, such as in wards, operating theatres and clinics. Others were much more organisation-wide, or beyond a single organisation. This differentiation seemed important to capture via the typology, in order to investigate its potential relevance to how improvements are led.

Walshe's 'context' and 'application' variables both focused on how the improvement was delivered. This was similar in meaning to the 'Process' dimension of the typology, which aimed to consider the way the improvement was led. The final variable identified by Walshe was 'Outcome'. An important aspect of the scoping of this research study involved the extent to which the outcome of improvement work was relevant to the research. As explained in Section 4.5, this study did not aim to specifically measure the outcomes of improvements.

The next stage of developing the Improvement Type Measure was to decide how to categorise examples of improvement against the proposed dimensions. Using the idea of a matrix as a basis, numeric values 1-3 were added to each dimension, to allow them to be compared and to some extent, measured in relative terms. Each example could therefore be categorised with a rating such as Focus 1 Level 2 Process 2 (F1L2P2); F3L3P3 etc. This matrix, shown in Figure 2, was known as the FLP matrix, indicating its three dimensions of Focus, Level and Process.

	1	2	3
FOCUS	Single patient group Single intervention / outcome	Multiple patient groups Multiple interventions / outcomes	Indeterminate patient groups Indeterminate interventions/ outcomes
LEVEL	Within a single organisation	Across several organisations	Beyond inter-organisational e.g. regional, national or international
PROCESS	Defined and simple	Defined and complex	Ambiguous

Figure 2. *Draft FLP Matrix Measure of Improvement*

This stage of typology development was highly iterative, with various members of the research team concurrently refining and testing different aspects of its reliability, utility and validity. Each of these aspects is detailed in the next sections.

5.2.4 Early Reliability Testing of the FLP Typology Matrix

The draft FLP matrix measure appeared to be simple in its structure. Internal reliability tests were carried out by the research team, to assess the extent to which there was internal consistency between members of the team in the ratings they derived using the FLP matrix measure (FLP ratings). A number of examples of service improvement

were taken from the documentary review and summarised (Appendix 3). These examples were separately rated by individual members of the research team, and an in-depth review discussion was then conducted between the researchers to compare results.

There was a high degree of agreement between team members about the FLP ratings appropriate to each example. A summary of the agreed ratings is shown in Appendix 4. However, this initial reliability test raised key issues for the next iteration of the instrument.

The testing highlighted the limits of the 1-3 range on the rating scale. In discussions, the researchers found that they were talking about the improvement examples in terms of 'a low 3' or 'a high 2' on various dimensions. For example, two of the examples were rated as P2 (rating 2 for Process), but detailed discussion confirmed that the complexity of implementing each of these improvements was very different. This raised two possibilities: that the Process dimension was too simplistic, possibly conflating what should be separate dimensions (a validity issue); and that the rating scale needed to be extended beyond 1-3 to allow for 'high' and 'low' ratings within each existing band (a utility issue). These possible refinements to the typology were taken into account in the next phase of testing the instrument.

5.2.5 Utility of the FLP Typology matrix

The researchers' use of the FLP matrix was based on an in-depth understanding of its background, purpose and development, meaning that internal consistency in its use was not difficult to achieve within the research team. More challenging was how to

create an instrument which could be widely used during the semi-structured interviews to gather relevant data and to classify and categorise the service improvement work undertaken by THF Award Holders. Furthermore, although it was beyond the immediate scope of the study, the researchers were interested to explore the extent to which such an instrument could be designed to be accessible and usable by the lay person, for potential self-administering purposes.

Integrating the typology measures into a survey instrument offered a legitimate and practical way of addressing one or both of these utility concerns. The aim of the researcher at this stage was to develop an instrument which could be used as part of a face-to-face interview schedule, and also had the potential for self-completion.

A visual analogue scale (VAS) was selected as the measurement tool for the improvement type instrument. The VAS has become a commonly-used measure in capturing subjective data in settings where the variable being measured is difficult to quantify (e.g. pain in patients, as described in Wewers & Lowe 1990). In the context of measuring improvement work, an absolute rating for each dimension of the improvement is less important than capturing the respondent's overall opinion in relation to two contrasting statements about each dimension of change. The absence of numbers on the VAS enables participants to simply weigh the two sentences in their mind in deciding how to respond, rather than attempting to quantify their view. Thus, it was selected because it places fewer constraints on respondents, as they are not forced to choose a specific numeric value on the scale, leading to greater discrimination in how respondents use the scale for expressing their rating.

5.2.6 Validity of Typology Dimensions

The early testing of the FLP matrix within the research team had highlighted some validity issues, in particular raising the question as to whether the three initial constructs of Focus, Level and Process were appropriate in number and range. Particularly within the Process dimension, there seemed to be various factors to consider, which combined to determine the overall complexity of the process, and which arguably warranted separate ratings. These included the nature and number of stakeholders involved in the improvement, and the overall scale of the improvement, both of which seemed to emerge from early internal piloting as key variables for differentiating the more complex improvements from more straightforward change initiatives.

Notwithstanding the deliberate exclusion from this study of any measures of improvement success (as detailed in Section 4.5) the researcher decided that the improvement typology should necessarily attempt to identify different types of intended outcome. This was potentially important in identifying whether the impact of the improvement was intended to be directly on patients (e.g. enhancing the outpatient experience for patients), or on organisational systems which indirectly support patient care (e.g. increasing clinical engagement in commissioning health services). It was acknowledged that such indirect and direct improvements may potentially be led in different ways.

To more thoroughly evaluate the range of dimensions to be used in the instrument, a re-examination of the improvement literature was undertaken, with a particular focus

on identifying any constructs of improvement which seemed relevant to include in an improvement taxonomy. In addition to the constructs already identified as important, several additional constructs emerged from the literature.

Crump's (2008) exploration of key factors driving improvement in the NHS stresses the significance of the source of motivation for the improvement. Crump maps eleven typical examples of NHS improvement 'drivers' onto a simple matrix, showing whether they are internal, external, voluntary or compelled. This analysis resonated with the evaluation team's experience of working with NHS staff, whereby the response and attitude towards improvements could sometimes be linked to whether the change was imposed or voluntary. An item was therefore developed to reflect the 'voluntary-compelled' dimension of service improvement.

This item was the subject of extensive debate among the researchers, in an attempt to extricate the motivational aspects of the variable (i.e. how is motivation for improvement affected by compulsion or voluntarism?) from the contextual aspects (how important are the political imperatives in affecting the implementation of improvement?). Parker et al (2007) draw a distinction between 'local participatory' and 'central expert' quality improvement:

'Local participatory QI is a bottom-up approach in which frontline staff members identify a problem ... and develop and implement local solutions to those problems. Central expert QI, on the other hand, is a top-down approach whereby experts and expert-informed managers

implement QI programs based on research evidence and expert experience regarding best practices'. (p. 1268)

This key difference is characterised by Greenhalgh et al (2004) as “naturally emergent innovation” as compared with “managerial innovation”. Kirton’s (2006) descriptors of “adaptive” and “innovative” change are a simple alternative differentiation. Whilst there remains a debate about the extent to which these terms refer to the nature of the change or the style of its implementation, there appears to be agreement among researchers that this aspect of the improvement can be important to consider in understanding its impact. An item was therefore developed to capture data about the adaptive / innovative nature of the improvements.

These literature-derived constructs were added to those empirically- derived by the researchers, to create a pilot version of a visual analogue Improvement Type Measure, as shown in Appendix 5.

5.2.7 Piloting the Improvement Type Measure

In order to pilot the Improvement Type Measure, some descriptions of improvement projects were required, against which ratings could be made. Examples of improvement work undertaken by THF Award Holders were extracted from the prior documentary review and were formed into brief descriptive paragraphs, as shown in Appendix 6.

Some internal piloting of the ITM was undertaken within the research team, using the written scenarios as a basis. The first external pilot of the typology took place at the

end of a workshop for THF Leadership Fellows in York in June 2008. 17 people took part, including one member of THF staff and 2 Leadership Development Consultants. The group was asked to read through each improvement description, as shown in Appendix 6, and to use the Improvement Type Measure instrument (Appendix 5) to rate each one. Participants were also asked, in a focus group, to verbally comment on the pilot instrument in terms of its face validity and its utility.

In his critical examination of the concept of 'face validity', Mosier (1947) identifies ambiguities surrounding the use of the term. From the four interpretations he identifies, reference here to face validity in respect of the Improvement Type Measure refers to what he calls Appearance of Validity, namely,

'a test which is to be used in a practical situation should, in addition to having pragmatic or statistical validity, appear practical, pertinent and related to the purpose of the test as well' (p.192)

He continues by clarifying that,

'This usage of the term assumes that face validity is not validity in any usual sense of the word but merely an additional attribute of the test which is highly desirable in certain situations.' (p.192)

In relation to the piloting of the Improvement Type Measure, the focus group of participants taking part in the pilot were asked about the extent to which the dimensions on the pilot instrument appeared to measure the sorts of aspects which 'from ordinary experience' (Roth, 1995, p.390) might be expected in a tool with this purpose.

The data collected from this pilot were manually recorded and analysed. The main findings and feedback are shown in Figure 3 :

- Not sufficient information in the scenario descriptions to accurately rate each item – most common comment
- Very little consistency in ratings obtained from 15 completed questionnaires (2 questionnaires incomplete)
- Some of the polarities are too complicated, conflating more than one element (e.g. items 5 & 7)
- Scenarios 2, 5 & 7 are not improvements – they are studies, therefore the ITM is difficult to apply
- Regarding item 6, even if an improvement is an imposed imperative, the implementation can still be creative
- Limited knowledge of clinical areas amongst some respondents limited their ability and confidence to rate the improvements.

Figure 3. *Verbal feedback from respondents piloting the ITM, June 2008*

The lack of sufficient information to make a rating appeared to be an underlying factor contributing to the inconsistency of ratings in the pilot at York, and was therefore a prime area of focus in refining the methodology. The author refined the descriptions of improvement work, replacing the 7 brief summary paragraphs with 3 more detailed descriptions, as shown in Appendix 7.

In addition, some changes were made to the items on the Improvement Type Measure, in response to feedback from the first pilot. The wording at each end of the visual analogue scale was simplified, and the dimension measuring the scale and complexity of influencing stakeholders was divided into two separate items. In response to specific feedback from pilot participants, the dimension measuring patient

impact was divided into two separate items, to allow for health outcome and patient experience to be rated separately. This created an Improvement Type Measure with 9 dimensions (Appendix 8). The pilot of this second version was run at a lunchtime workshop with THF staff. Twenty-two completed questionnaires were returned.

Despite the more detailed examples, specifically written to contain information relating to each item on the Improvement Type Measure, analysis of data from the second pilot showed only slightly better reliability than with the first version. The most concrete scenario (cleft lip and palate network) had the most reliable consistency, and the most ephemeral scenario (high impact changes) the least consistent, but in both cases, the spread of ratings showed that in its current form, the ITM was far from being a reliable measure.

Respondents in the two pilots had provided positive verbal feedback during the focus groups about the face validity of the dimensions. However, there was a sense that whilst the face validity was good, the utility of the instrument as a self-assessment tool was potentially becoming reduced by its intricacies.

The researchers spent many hours debating the tension between developing a holistic, qualitative tool on the one hand and a highly precise, quantitative but reductionist instrument on the other. The aim was to design a typological instrument whereby reliability, validity and utility could be optimised.

Given the difficulties encountered by pilot respondents from a lack of sufficient information in a written scenario, a paper-based approach to classifying improvement work was looking increasingly impractical. It became apparent at this stage that the

essence and detail of improvement work required for useful classification could only be captured through conversation and verbal explanation. Consequently, it was decided that the Improvement Type Measure would be developed into a semi-structured interview format, which could be used with individual THF Award Holders. This would then be incorporated into the semi-structured interview schedule as part of the data-gathering stage of the research.

The work to develop the ITM upto this point was presented and shared at a seminar run by the THF, involving academic advisers, the researchers, senior THF managers and Leadership Development Consultants in July 2008. The seminar provided an opportunity to reflect on the work of the research team thus far, to scrutinise the approach taken and decisions made, and to offer peer review on the overall process and progress.

As a result of discussions during this seminar, the decision was taken to change the Improvement Type Measure from a self-assessment instrument into one that had to be administered by trained 'experts' (ie the researchers and people trained by them). Clearly, such a move made the wider dissemination of the instrument harder to envisage, but it did allow the notion of a more sophisticated, detailed instrument to be developed, whose utilisation could potentially have benefits beyond the simple assessment of the complexity of an improvement initiative, and into the realms of a mature developmental tool.

Once this decision had been made, the focus was to improve the reliability of the interview-based ITM instrument. Pilots of this instrument took the form of recorded and transcribed interviews with two previous THF Leaders for Change Award Holders.

The transcripts were then independently rated by each of the two researchers undertaking these interviews against the ITM, and the two of them then met together and with the rest of the research team to discuss the results. On the basis of these discussions, it became apparent that a core method of interpreting each piece of improvement work was developing among the evaluation team, leading to a good level of internal consistency in rating types of improvement work.

5.2.8 Refining the Improvement Type Measure

To reflect the methodological move towards verbal explanation rather than paper-based description of improvement work, the data-gathering process for the Improvement Type Measure was incorporated into the semi-structured interview phase of the project. Some final refinements were made to the ITM prior to commencing the semi-structured interviews.

Firstly, the measure about the reasons or drivers for change (the voluntary / compelled dimension) was re-considered and removed. The pilots had not provided data to suggest that this was a discriminating factor in the way improvement work was implemented. Some feedback from the pilots had highlighted this item as being a 'red herring' and the researchers also had reservations about its value. The researchers decided that the reasons for an improvement were part of the context for that change, and that the study's focus was on implementation within the given context. Whilst acknowledging the significance of contextual factors, it was beyond the scope of this study to examine contextual factors in specific terms.

Secondly, a factor which emerged as warranting more attention was the sustainability of the changes made to services. The term 'sustainability' has become common parlance in relation to organisational improvement. Within improvement science and process improvement fields, sustainability is defined as,

'when new ways of working and improved outcomes become the norm... not only have the process and outcome changed, but the thinking and attitudes behind them are fundamentally altered and the systems surrounding them are transformed as well.' (NHS Institute 2011, p.4)

In recent years, academic studies have been devoted to understanding why improvement processes are often implemented successfully in organisations, but are difficult to sustain over time. (e.g. Bateman 2005).

In the context of the NHS, the difficulties of improvements becoming mainstream is acknowledged as a continuing challenge. The NHS Institute for Innovation and Improvement has an entire workstream dedicated to supporting sustainability in service improvements, describing successful organisations as those which,

'can implement and sustain effective improvement initiatives leading to increased quality and patient experience at lower cost'. (Online source, NHS Institute 2011a)

In their account of what had been learnt about service improvement in the NHS, Maher & Penny (2005) describe sustainability as,

'being able to hold the gains made during the improvement initiative, evolving them as required and definitely not going back to the old ways of working.'(p.94)

This captures some of the meaning intended by the researcher in introducing sustainability as a dimension for the ITM. More specifically, the item was intended to relate to the influence of the improvement leader, whereby a sustainable improvement would be one where the leader could leave the organisation and the improvement made would be sufficiently embedded into the way of doing things that it would continue even after they had left. In other words, the improvement was not dependent on that individual leader continuing to actively support or promote it.

An item was therefore added to capture data about the extent to which the improvement work was a 'one-off' or was becoming embedded into the way the organisation works i.e. was it dependent on the individual leader or 'champion' or did it become part of 'the way we do things around here'?

Thirdly, early discussions about the ITM dimensions had included debates about the extent to which the Focus and Level of the quality improvement work could be differentiated or conflated, and this issue needed to be resolved. An assumption existed amongst some members of the team that an improvement occurring at a local level, led by someone in the lower hierarchical levels of an organisation, would require simpler, and possibly fewer, leadership skills than a change being led by someone senior in the hierarchy, attempting to change things more strategically. Other members of the team remained unconvinced about this issue.

It was decided that data gathered from the study would help to illuminate this issue and to indicate how significant Level and Focus were in terms of their links to leadership for NHS improvement. Accordingly, the two separate dimensions of Focus and Level were retained within the ITM, to be tested against the data gathered.

Fourthly, a decision was made to extend the scale for each dimension from a 3–point scale (as outlined in Figure 2) to a 7-point scale. The team’s increasing familiarity with the nature of the improvement work undertaken by THF Award Holders led to a concern that there would be a large degree of clustering of ratings towards the centre of a 1-3 scale, resulting in many ratings of 2. This could potentially obscure differences in the types of improvement work, and make it more difficult to uncover relationships and links between datasets. The move to a 7-point scale was therefore designed to allow a greater degree of differentiation between the various quality improvement initiatives being carried out. Detailed descriptors were established for the low, mid and high points on this scale (1, 4 & 7.) A worked example of how ratings were established using these descriptors is provided in Section 5.4.1. These descriptors proved effective in enabling members of the research team to reliably rate the types of improvement work. Given this efficacy, similar descriptors for ratings 2, 3, 5 & 6 were not pragmatically required for the purposes of the study. However, for wider utility beyond an ‘expert’ group of users, detailed descriptors at every rating point would be necessary. This is considered further in Section 7.8.

The lengthy, iterative process of developing an approach to categorising different types of NHS improvement illustrates the significance of this phase of the work as a basis for the rest of the study. The final measurement dimensions were arranged to

form broad headings of Focus, Level, Process and Intended Impact, summarised into what was named the Healthcare Improvement Typology (Figure 4).

The Healthcare Improvement Typology reflects the changes to the dimensions made in response to the literature, the piloting of the measure and the internal reliability testing within the research team. It enabled each piece of improvement work encountered during the data-gathering to be classified, with a 4-integer rating (e.g.F2L4P3I5, abbreviated to 2435). This provided the working taxonomy for the study, and formed the basis of analysis and correlation to leadership behaviours.

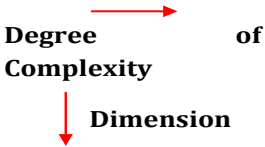
	1	4	7
FOCUS	The improvement is aimed at a defined group of people and is limited to a single clinical condition or one aspect of a clinical pathway.	The improvement is aimed at a wide group of people with a range of clinical needs.	The improvement is intended to benefit unlimited numbers of people with unlimited clinical needs.
LEVEL	The improvement is focused within a single ward, department or general practice.	The scope of the improvement covers several departments or care pathways within a single health economy.	The improvement covers several national and/or international agencies or organisations.
PROCESS	The change involves small improvements to existing practice. It only involves influencing one or two specific, identifiable individuals, and the task involved in this is extremely easy.	Some aspects of the change involve different ways of doing or thinking about things. Influencing is both direct and indirect, involving identifiable individuals and identifiable groups of people. Some of this influencing is problematic.	The change is entirely innovative, with completely new ways of doing or thinking about things. It involves influencing a range of people so diverse that it is virtually impossible to define them all; a task as complex and difficult as it could possibly be.
INTENDED IMPACT	The change does not appear to be making any direct difference to the health, wellbeing or overall experience of service users. It appears to have no sustainability beyond its initial 'input' phase	It appears that the improvement has had a direct impact on improving the health, wellbeing or overall experience of service users. Some aspects of the improvement appear sustainable beyond its initial 'input' phase.	It appears that the improvement has had a direct impact on improving the health, wellbeing or overall experience of service users, and is sustainable indefinitely.

Figure 4. Healthcare Improvement Typology

5.2.9 Summary of developing the Healthcare Improvement Typology

The lengthy process of developing the Healthcare Improvement Typology has been detailed in this section. In summary, the process involved piloting many versions and iterations, starting with an attempt to use single 'type' categories for classifying improvement work. This proved counter-productive, as the NHS improvement work was multi-faceted and therefore did not generally lend itself to being placed in a single

category. This led to a realisation that, at its most fundamental level, NHS improvement work could be differentiated on the basis of how complex it was. Some examples of improvement work were much more complex for a range of reasons, than others. Consequently, a matrix approach was developed, whereby the complexity of improvement work could be 'rated' on a range of factors in order to categorise its type. The factors were:

Focus	the size of the group of people affected and the scope of their clinical needs;
Level	whether the improvement is local, intra-organisational, across organisations, regional, national or international;
Process	whether the improvement is adaptive or innovative; the range of stakeholders to be influenced, and the perceived difficulty of the influencing process.
Intended Impact	the extent to which the improvement had the intended impact on the health, wellbeing and experience of service users, and its apparent sustainability.

The final version of the Healthcare Improvement Typology is shown in Figure 4.

5.2.10 Use of Healthcare Improvement Typology in semi-structured interviews

The aim was to use the Healthcare Improvement Typology as an analytical framework for data gathered during the semi-structured interviews. For each respondent, data were collected about the improvement work they had led, and the Healthcare Improvement Typology was used to classify the data about the improvement. Each respondent's improvement work was rated with a 4-integer rating (eg F2L4P3I5, abbreviated to 2435). These ratings provided a quantitative expression of the descriptive accounts of improvement work given during the semi-structured interviews. The Improvement Type ratings for each respondent provided a basis for analysing whether and how the different types of improvement work were associated with the leadership behaviours reported by participants, helping to investigate whether different types of leadership are needed for different types of NHS improvement work. The details of the semi-structured interview stage of the study are provided in the next section.

5.3 Semi-Structured Interviews

In this study, there were two key aims of the interview stage:

- To gather descriptions of improvement work undertaken, to allow rating against the Healthcare Improvement Typology;
- To gather rich qualitative data about reported leadership behaviours in implementing the improvement work.

These aims guided the researchers' choice of interview type. There was a requirement within the interviews to gather data about specific aspects of the improvement work which related to the Healthcare Improvement Typology. In this respect, the interviews needed to gather comparable data in the sense that discussion about the same aspects of the improvement were required in each interview, to enable the coding of this data into a rating across a range of dimensions. A structured interview approach could arguably have achieved this, using a uniform questionnaire as a data collection instrument. May (2001) outlines the benefits of this method for achieving comparability. However, as highlighted in Section 5.2.7, the work to develop and test out the Healthcare Improvement Typology had illustrated that the essence and detail of improvement work required for useful classification could only be captured through conversation and verbal explanation rather than through paper-based ranking. It was therefore unrealistic to use a structured interview approach for this purpose, as it would be too constraining, preventing the dialogue required between interviewer and interviewee to glean the required data. As outlined by Fontana and Frey (1994), structured interviews allow for little deviation from the questionnaire and no improvisation in the wording of the interview. Such an approach would have been too restrictive in gaining the necessary data about the improvement work, and would have been completely inappropriate for gathering the rich qualitative data needed about leadership behaviours.

An unstructured interview approach was also discounted for the converse reason; that it would be too open-ended, and would not allow for the directed questioning about

improvement type which was necessary for classification purposes. The key characteristics of the unstructured interview are described by May (2001) as being,

'Flexibility and the discovery of meaning, rather than standardization, or a concern to compare' (p.125)

The interviews in this study were less about discovering meaning and more about obtaining a verbal description of issues, actions and behaviours.

The semi-structured interview (SSI) was therefore selected as sitting appropriately mid-way between the structured and unstructured approach, drawing benefits from both. Whilst one section of the questionnaire specified the areas for questioning in relation to the type of improvement work undertaken, the other section, designed to elicit data about leadership behaviours, provided wide scope for the interviewee to describe their approach in their own terms. This enabled interviewers to seek clarification or elaboration where necessary, and to gather codifiable data where needed.

5.3.1 Design of the interview schedule

The semi-structured interview schedule was developed around three areas:

- 1** Biographical details
- 2** Type of improvement work undertaken
- 3** Leadership behaviours used to lead the improvement work

As has been discussed in section 5.3, the second of these sections was designed to gather specific data relating to the type of improvement work undertaken, incorporating the nine dimensions which form part of the Healthcare Improvement Typology, under the headings of Focus, Level, Process and Intended Impact. The third section of the interview schedule was purposefully open-ended, to allow respondents to provide their own description of what they did to bring about the improvement.

5.3.2 Pilot Interviews

The purpose of the pilot interviews was to test the interview schedule and to review the extent to which this methodology would achieve the intended aims. The semi-structured interview schedule was piloted with 2 Award Holders during November 2008.

Pilot interviews were undertaken by interviewers in pairs to cross-check the findings and the approach and the interviews were recorded on audio equipment for transcription and detailed analysis. Interviewees were given the option of doing the interview at their own place of work or in a neutral workplace location. Both opted for their own work location.

The structure of the SSI schedule proved effective in eliciting the necessary data about improvement 'type' and associated leadership behaviours. In practice, some of the questions could be merged, conversationally, but they were retained as separate items on the schedule to ensure thoroughness. No significant changes to the schedule were deemed necessary. The final SSI schedule is shown in Appendix 9.

5.3.3 Sampling

The total population for this study consisted of all the individual Award Holders who had undertaken a THF-funded leadership scheme between 2003-2008. At the interviewing stage of the study, this totalled 211 individuals. In terms of the characteristics of this population, all had, at the time of their award, been working as a clinician, a clinical scientist or a manager in an NHS organisation. As THF Award Holders, they had all undertaken some sort of service improvement work as part of their leadership development programme. The THF was the gatekeeper in the study, and as such, determined the scope of the population. As highlighted by Hammersley & Atkinson (1983),

'Seeking the permission of gatekeepers or the support of sponsors is often an unavoidable first step in gaining access to the data. Furthermore, the relationships established with such people can have important consequences for the subsequent course of the research.'(pp. 72-73)

The relationship with the THF as a gatekeeper and sponsor was a positive one and as such, the constraints around access issues were purely practical (e.g. the extent to which the database of contact information had been kept up-to-date by the THF), rather than permission-related issues. This enabled what Denscombe (2007) refers to as a good '*access relationship*' (p.71) with the THF as gatekeeper.

The sample included a spread across people with different professional backgrounds, working in middle or senior management positions in acute, general practice,

community care, primary care and mental healthcare settings, as well as in Strategic Health Authorities. There was no intention within this study to undertake sub-sampling, whereby different subsets of the sample would be examined separately.

There were several practical factors which had a material impact on the overall study population. Firstly, the contact details for the population had not been kept up-to-date by the THF, meaning that some potential respondents were no longer contactable. Secondly, several of the Award Holders had moved out of the UK since completion of their Award, making a face-to-face interview with them impractical. Thirdly, a small number had left the leadership scheme before the end, and were therefore excluded from the population. Taking these factors into account, the total sampling frame for the interviews consisted of 180 individual THF Award Holders.

This population included Award Holders from five different THF leadership schemes. During the preparatory phase for the interviews, it became clear that of these five schemes, only two involved the Award Holder undertaking any improvement work in the workplace. The other three schemes had a focus on research into improvement rather than its implementation, and the participants of these would consequently not be able to provide any data about leading an improvement. These three schemes were therefore excluded from the population, leaving just Award Holders from the Leadership Fellows and Leaders for Change schemes. This provided a total population of 123.

It was agreed with the THF that the sampling for this remaining population should comprise approximately half from each of the two schemes, but that in all other regards, a random sample be used.

An email (Appendix 10) was sent by the Health Foundation to all 123 in this remaining population, introducing the research team and outlining the purpose of the study. The total interview population was divided into sub-groups and each allocated to one of the researchers, who then directly contacted their allocated participants in order to request a 90 minute interview. An example of the email invitation is shown in Appendix 11. In practice, the sample of participants interviewed was largely influenced by factors outside the researchers' control, such as response rates, interviewee willingness, date availability, logistics and geography. Within these constraints, and the timescale limitations of the study, the researchers interviewed as many participants as possible, undertaking a total of 36 interviews, each lasting around 90 minutes.

5.3.4 Practical Considerations

May (2001) cites the work of Kahn & Cannell (1983) in a discussion of the conditions required for successful research interviews. Three issues are raised, namely accessibility, cognition and motivation. Each of these is considered in this section, with particular reference to the semi-structured interviews carried out in this study.

Accessibility issues potentially arise when, for a variety of reasons, there are limits to the extent to which the interviewee can provide the information sought by the interviewer. It may be that the interviewee has forgotten the details required; that the information is personally sensitive leading to a reticence about divulging it; or that the

interviewer expects a method of answering which is not familiar to the interviewee (eg within an unfamiliar frame of reference). In addition, and linked to the issue of interviewee motivation, some data may be difficult to access due to perceived political and ethical sensitivities.

In relation to this study, the temporal considerations were of particular relevance. Those interviewees who had taken part in earlier cohorts of the THF leadership programme may have completed the associated improvement work two or three years prior to the research interview, and therefore the recollected detail of this was not as fresh as with more recent Award Holders. In some cases, interviewees had changed jobs or organisations at least once during the intervening period, meaning that they were not in a position to know what had happened with their improvements to services since they had left. This impacted on the amount of data which could be gathered about the sustainability of these pieces of improvement work. On the other hand, in those cases where respondents were from earlier cohorts, had a good memory of the improvement work and were still associated with the same services, there was scope to gather more data about the sustainability of improvements, than from more recent respondents, where the improvements had not yet had time to embed themselves. Within the agreed sampling frame and practical limits of the study, the researchers aimed to interview a mix of earlier and more recent Award Holders.

The second condition for successful interviews, according to May (2001) is cognition. This relates to the interviewee having clear expectations about what sort of information is required and also about their own role in the interview. The importance of this issue is highlighted by May (ibid) in his reminder that,

'interviews are social encounters and not simply passive means of gaining information.' (p.128)

For this study, potential issues of cognition related to the various stakeholders in the study. Several sets of organisational and personal loyalties were part of each interviewee's experience of the leadership scheme. Each interviewee had been funded for the leadership scheme by the Health Foundation, and given permission to take part by their NHS employer, which may have been a different organisation from their current employing body. The interviewee would also have built a relationship with the providers of the leadership scheme, potentially including several individual academics, management consultants and leadership coaches. In addition, the high profile of the THF leadership schemes meant that Award Holders had high expectations of themselves and what they could achieve from their participation. The nature of the interview indirectly invited the respondents to reflect on their own performance during the leadership scheme, and to share their perceptions of this with the interviewer, who was a relative stranger. The need for rapport-building early on in the interviews was therefore of particular importance.

Within the introductory comments before the interview, it was important for the researcher to allow for any of these cognition issues to be raised and clarified where needed, to enable the interviewee to engage in the interview as fully as possible.

Thirdly, May (ibid) refers to motivation as a key consideration in providing optimal conditions for the research interview, stressing that,

‘the interviewer must make the subjects feel that their participation and answers are valued, for their cooperation is fundamental to the conduct of the interview. ‘ (p129)

Within this study, amongst those who responded to email requests for participation, there was a high level of cooperation with the evaluation work, and a high degree of motivation to help with the study. In terms of building rapport with respondents and helping them to feel that their participation was valued, there were issues of consistency to take into account, by virtue of three different researchers undertaking the interviews. Inevitably, each interviewer’s style varied to some extent, even within the framework of a uniform interview schedule, particularly in the more free-flowing sections of the interview. As the study progressed, all interviews were transcribed and sent to the author, who undertook the interview analysis for all interviews. This provided an element of consistency verification in the interview process, allowing early transcriptions from different interviewers to be compared for style, and for differences to be discussed among the interviewers so that minor changes in style and emphasis could be made where necessary.

5.4 Interview Analysis Frameworks

Two separate frameworks were required for analysing the interview data; one to code the data about types of improvement work, and the second to code the data about leadership behaviours. This section provides details of the rationale for selecting particular frameworks for this purpose.

Coding has been defined by Strauss (1988) as,

‘the general term for conceptualizing data; thus, coding includes raising questions and giving provisional answers (hypotheses) about categories and about their relations.’ (p.20-21)

In this study, the main questions and hypotheses raised by the coding process related to how to make sense of the extensive and rich, qualitative data pertaining to NHS improvement work and reported leadership behaviours. How could the data be systematically ordered so as to offer insights into the research questions? Were any patterns or associations evident within or between the datasets? If so, what might explain these patterns? If no patterns were evident, what might that suggest about the research methodology or the subject of the research? Did the data provide any new understanding of how NHS improvement and leadership are linked?

In respect of the data about improvement type, the method of coding SSI data and the rationale for this were clear. As detailed in Section 5.2, the extensive work to develop the Healthcare Improvement Typology had as its core purpose to provide a framework for coding the qualitative data gathered during the interviews.

The main piece of improvement work described by SSI respondents was used as a basis for assigning a quantitative 4-integer rating to the work, against the Healthcare Improvement Typology (eg 1111 to 7777). The higher the rating for the improvement work, the more complex its nature, based on the four dimensions of Focus, Level, Process and Intended Impact. This rating was treated as an indicator of complexity for the improvement work undertaken by each respondent. For illustrative purposes, a

worked example of how ratings were assigned to improvement work described during the SSIs is shown in the next section.

5.4.1 Assigning a ‘type’ rating to an improvement

In this worked example, the improvement work being undertaken by the THF award holder was introducing one-stop day surgery for minor surgical conditions. This involved patients being given one single hospital appointment post-referral, preceded by a telephone pre-assessment, and all necessary diagnostics being carried out at the single appointment prior to the day case procedure itself being carried out. The aim was for patients to be discharged on the same day, and provided with follow-up telephone contact rather than any follow-up hospital appointments.

This improvement work replaced a pathway whereby patients previously had to attend for diagnostics and pre-assessment on separate occasions and then attend again for the procedure, sometimes waiting hours for a procedure which took only minutes to perform. A further hospital appointment was then required for follow-up. The improvement work re-designed the pathway to streamline all these processes into one single hospital appointment.

The process for assigning a ‘type’ rating to the project was based on extracting data from the SSI transcription, usually in the form of verbatim quotes. Data relevant to each dimension of the NHS Improvement Typology measure, i.e. Focus, Level, Process and Intended Impact, were noted. For this worked example, each of these dimensions is detailed below.

1. **FOCUS**

The data from the SSI relevant to this dimension were:

'Patients having day surgery for intermediate things like, you know, hernias, varicose veins, and complex things like laproscopic colonectomies and laproscopic incision of hernia repairs. Oh, simple things - moles, toenails, lumps, and bumps.'

These verbatim data were then assessed against the Healthcare Improvement Typology to ascertain an appropriate rating for the Focus dimension:

	1	4	7
FOCUS	The improvement is aimed at a defined group of people and is limited to a single clinical condition or one aspect of a clinical pathway.	The improvement is aimed at a wide group of people with a range of clinical needs.	The improvement is intended to benefit unlimited numbers of people with unlimited clinical needs.

In this case, the Focus rating would be higher than a 1 because the focus was wider than a single clinical condition. However, it would be lower than a 4 because the group of patients affected by the improvement could not be classed as 'a wide group of people'. The people affected by this change were those on a single operating list, so the range was quite narrow, limited to a few clinical conditions, and limited to a single clinical pathway. If more than one clinical pathway had been involved, this would have been assigned a rating of 3, but given that a single pathway was being addressed, the rating 2 for Focus was appropriate in this case.

2. **LEVEL**

The data from the SSI relevant to the Level dimension were not verbatim in this case, but interpreted by the interviewer. From the interviewee's explanation of the improvement work, it was clear that the level at which it was happening was within one surgical day case list in the day surgery unit. The Healthcare Improvement Typology was then used to determine a rating for this:

	1	4	7
LEVEL	The improvement is focused within a single ward, department or general practice.	The scope of the improvement covers several departments or care pathways within a single health economy	The improvement covers several national and/or international agencies or organisations.

In the worked example, this improvement appears to fit with the description of rating 1. However, other data from the SSI reveals that the improvement involved liaison with other departments as well as day surgery, such as diagnostics, outpatients and the IT department, for the purposes of making the changes required to the care pathway. This meant that a rating of 1 was too low. A rating of 4 was too high, because whilst several departments were involved, only one care pathway was being altered. An assessment therefore needed to be made as to whether this improvement was at Level 2 or Level 3. The Level 3 rating was aimed at a level below a single health economy, namely, within a single organisation, but spanning many parts of a whole organisation. This worked example was at a more local, departmental level than this. Therefore, Level 2 was agreed as being the appropriate rating for this dimension.

3. PROCESS

The data relevant to the Process dimension related to the type of change involved, the range of stakeholders and the influencing process. For the worked example, the data are shown below, in verbatim form.

Type of change/ Scale of change

(Innovative) I am not aware of this being done anywhere else on an all-comers basis.

Range of stakeholders

Outpatient nurses, theatre staff, consultant surgeons, day case ward staff, patient admin people, managers, anaesthetic team, IT people

Influencing

Because now we have a model pathway and it then has to match up with various people's thinking, it has to, you know, the Trust shouldn't lose money on this, the computer system should match up, the consultants surgeon should agree, the anaesthetist should agree, because when you say 'all comers', people immediately worry...get worried that, you know, somebody off the road is going to come up and ask for a heart transplant or something like that, you know, even though that is clearly not the case.

So first we had to get agreement from the surgical team, we had to agreement from the anaesthetic team...

Outpatient nurses, they were very worried because they are losing business, they were worried that, you know, some of them might get unemployed or outpatients might fall to...you know, numbers may fall, day case ward nurses, they were worried that, you know, we are not outpatients so why are these patients who have not been checked before going to come here, and if they needed follow ups and all that, you know, how are we going to arrange that.

The computer systems the patient admin people said, you know, this will not work with the computer systems because the system is designed for outpatient pre-assessment, TCI, discharge, follow up, it will never do it within one day, where's the outpatient? And I said, in that in case tweak the system, he was going 'no you can't, because there is...this is not an authorised pathway'.

For instance, two tries at the patient admin 'choose and book' computer systems just didn't work at all. They sat and listened to me in great appreciation but it still didn't happen. So, you know, these are all the types of hurdles which we had to deal with one step at a time.

These data were assessed against the dimension descriptors on the Healthcare Improvement Typology, shown below.

	1	4	7
PROCESS	The change involves small improvements to existing practice. It only involves influencing one or two specific, identifiable individuals, and the task involved in this is extremely easy.	Some aspects of the change involve different ways of doing or thinking about things. Influencing is both direct and indirect, involving identifiable individuals and identifiable groups of people. Some of this influencing is problematic.	The change is entirely innovative, with completely new ways of doing or thinking about things. It involves influencing a range of people so diverse that it is virtually impossible to define them all; a task as complex and difficult as it could possibly be.

For the worked example, the Process rating fell clearly into the 4 domain. Whilst the one-stop day case list was common in some parts of the country, these lists would only be for one condition at a time. In the case of the THF award holder, some of the work was therefore towards the more innovative end of the spectrum, in that it created a one-stop day case list covering a range of surgical procedures, and this list was managed dynamically during the operating session, to reduce time spent waiting by patients to a minimum. The stakeholder influencing involved some direct persuasion of people, such as certain consultants, anaesthetists and theatre staff, but also indirect influencing of day case ward nurses and patient admin staff. Some but not all of this influencing proved problematic.

4. INTENDED IMPACT

The data relevant to the Intended Impact dimension related to the direct effect of the change on patient experience and health outcomes, as well as the likelihood of the change being sustainable. For the worked example, the data are shown below, in verbatim form.

Health outcome

Oh yes, from referral to discharge, we are about three or four weeks, that's our average time. Our re-admission rates are as good or better than the national average. Our inadvertent stay...overnight stays — you know, they come in as day cases but they end up staying — and that is far better than the national average.

we are using more and more local anaesthetics.

But apart from that, you know, the incidents of...we have monitored all clinical parameters, like post-operative bleeding, post-operative pain...bleeding and pain, I think are 0%,. Ah, no, actually one out of 130 patients had bleeding and 1 out of 130 patients stayed in bed due to pain, one had drowsiness, one had nausea. So the results are actually... the clinical results are very good.

And we have some recent audit results which shows that, you know, about 80%-85% we achieve day case, which is very good because the government target, so called target, is 75% and our internal standard was also 75%. So we have clearly exceeded that.

Patient experience

We have a protocol. If the nurses are happy with the protocol they discharge the patient, and then we don't give them a follow-up appointment, instead we give them a telephone number if it's working

time they ring if they have any concerns. If they say they need to see a nurse or a doctor in the hospital, we guarantee them a 48 hours...appointment within 48 hours. But, I don't think that anyone has actually taken that up, but quite a few people ring, but nobody actually takes...has actually taken that opportunity to come and see us within 48 hours.

See, when I thought of this and actually got speaking to various people, they said: 'No, patients won't like it and it can't be done' etc, which from experience we find when we do a surgical clinic, what we find for small problems, you know, if you have a little mole and a patient turns up in a surgical clinic and you tell them that you're going to put them on the waiting list, they always say 'Oh, I thought it was going to be done straight away, it's only such a small problem'.

That's what their thinking was. Who put that thinking into their mind nobody knows, but the patients seem to think 'If I have such a small problem, why can't you do it straight away?' It's a very valid question. And then patients come back for follow up after the operation, if it's a hernia or varicose veins or whatever, most of the time its 'Okay, lets see the scar...okay the scar looks fine, go away.' It's 30 seconds or a minute, and for this they come all the way, they park the car, and whatever else that goes on with it.

Patient satisfaction is excellent. And it is excellent, but we still had complaints and the complaints were 'I waited two hours before I had my surgery', and I want to tell them but I don't, I don't mistake me for it, I mean you would have waited 17 weeks yeah, and you are waiting two hours. But you see, you see the frame of mind when you change the frame...

Sustainability

By the end of the project by the end of the year it was done, embedding was done.

So it's well embedded but not rolled out. Every time when I go and speak, they say: 'Oh this is fantastic, keep doing it, what about doing it...' Does anybody else want to do it? 'Oh no, no, no, not for us, you keep doing it, that's fine. Well done'.

These data were assessed against the dimension descriptors on the NHS Improvement Typology, shown below.

	1	4	7
INTENDED IMPACT	The change does not appear to be making any direct difference to the health, wellbeing or overall experience of service users. It appears to have no sustainability beyond its initial 'input' phase	It appears that the improvement has had a direct impact on improving the health, wellbeing or overall experience of service users. Some aspects of the improvement appear sustainable beyond its initial 'input' phase.	It appears that the improvement has had a direct impact on improving the health, wellbeing or overall experience of service users, and is sustainable indefinitely.

The worked example was attributed a rating 4 for the Intended Impact dimension. On the first aspect of the dimension, the rating would fall in the 5 or possibly 6 domain, due to the significant impact the improvement has had on patient experience and on clinical outcomes. However, the sustainability aspect of the dimension falls below a level 5. The changes which have been put in place are embedded into the way of doing day case surgery, but only for the award holder's day case list, as an individual surgeon. As long as this surgeon remains in the organisation, the new approach will continue. However, if the surgeon in question leaves the organisation, there is low likelihood that the revised pathway will continue, as none of the rest of the day surgery surgeons have adopted the approach. For this reason, the improvement is largely dependent on the THF award holder as an individual, and on the basis of lack of sustainability, does not warrant an Impact rating above 4.

In summary, the overall type rating for this worked example was 2244. For each SSI respondent, a similar process was undertaken to assign a rating, which was then treated as an indicator of complexity for the improvement work described by each interviewee.

5.4.2 Leadership Behaviour Framework

For coding the data about leadership behaviours, the appropriate approach was less self-evident, and raised some methodological options for the researcher. Extensive consideration was given to the relative merits of different approaches to categorising these data.

One possible approach involved analysing the data on leadership behaviours without any particular explicit frame of reference (although it should be acknowledged that the researcher is likely to hold some kind of implicit frame of reference, from his or her own understanding of the topic). This might be considered a 'grounded' approach (Glaser & Strauss 1967), whereby the researcher examines the data with an open mind and organises it into categories on a blank sheet of paper, retaining a willingness to consider new ideas and connections emerging from the data which had previously not been evident. A benefit of this approach is that it is purely data-led, and that it is arguably more immune to influences of bias in coding processes. Significant drawbacks of the approach are that it is extremely time-consuming, and that the coding frame which emerges has no evidence base beyond the data generated by the study.

An alternative to this would be to use a pre-ordained frame of reference for coding the data; in this study, this would be a framework of leadership behaviours. Critique of such an approach may suggest that this pre-determines how the data will be categorised, and forces the data into meanings which are based on the existing frame of reference, rather than allowing possible new meanings and connections to emerge. On the other hand, this approach has obvious pragmatic advantages in terms of time and resources. In addition, a strength of the approach is that existing frameworks are likely to have a basis of literature and evidence behind them, which could enhance their perceived validity, and lend credence to the coding process.

In weighing up the options, the researcher was cognisant of several possible leadership frameworks already in existence and in use in the NHS. The researcher had been involved in mapping and comparing these as part of other work, and it was

deemed unlikely that this study would uncover any significantly different types of leadership behaviour from those identified by extensive previous research in the field. Mouradian & Huebner (2007) found considerable 'overlap' between existing leadership competency frameworks and those that are newly-devised for specific leadership contexts. It was therefore decided to adopt an existing frame of reference for leadership behaviours as a basis for analysing the interview data.

Several leadership behaviour frameworks have been developed for use in the NHS over recent years. An indication of the range of frameworks available specifically for the NHS is given in Appendix 12. Whilst some of these have been developed since this study was undertaken, and the Leadership Qualities Framework has subsequently been superseded by an updated version, the purpose of Appendix 12 is to illustrate, at the time of the study, how strongly the NHS recommended use of the LQF as a *'framework of choice within the NHS'* (online source, NHS Institute 2011b).

The LQF, illustrated in Figure 5, consisted of 15 leadership qualities organised into three clusters - Personal Qualities, Setting Direction and Delivering the Service. Each quality was broken down into a number of competencies describing the attitudes and behaviours required of effective leaders at any level of the service. Effectiveness in each of these competency areas was indicated by levels, with the highest level describing optimal leadership performance.

NHS Leadership Qualities Framework



Figure 5. NHS Leadership Qualities Framework

The framework could be used in a number of ways, including coaching, team development, recruitment and selection and organisation development. It formed the basis for setting leadership standards in the NHS, assessing and developing leadership performance, 360 degree individual assessment and benchmarking of leadership capacity and capability (NHS Leadership Centre 2011). For this reason, the researcher gave the LQF serious consideration as the framework for analysis of the leadership data.

The LQF appeared to have wide-ranging support in the NHS (Bolden 2006). Its resource-intensive promotion by the former NHS Modernisation Agency and latterly by the NHS Institute for Innovation and Improvement went some way to explaining the apparently unquestioning adoption of the LQF by NHS organisations at all levels and for diverse purposes. It is of note that the introduction of the LQF was part of the era of high investment between 2002–2008, and was part of a wide range of tools commissioned by an NHS seeking pragmatic, accessible and quick solutions to endemic cultural and quality-related issues. Among the few commentators offering robust critique of the LQF, Bolden et al (ibid) challenge the premise on which any competency framework is based, suggesting that such frameworks are *'conceptually and methodologically flawed to be of much benefit on their own'* (p.24). They call for an approach to understanding leadership which is less focused on prescriptive, reductionist competencies of individual staff, and instead concentrating on the social and relational nature of the collective leadership process. Specific criticism of the LQF highlights that it was devised from interviews and focus groups with NHS Chief Executives and Directors, and yet was intended to be used with staff at all levels of organisations. Its roots in hierarchical and positional leadership roles were arguably in tension with its purported relevance to leaders at other levels in the NHS. The methodology used, whereby the framework was developed on the basis of self-reported behaviours, without any third-party perceptions of leadership effectiveness, is also highlighted as a weakness in terms of the framework's validity.

As a potential coding framework for this study, the LQF benefitted from widespread usage and a high degree of recognition amongst potential respondents, the wider NHS

community and the Health Foundation. However, aspects of the LQF were somewhat problematic for the purposes of analysing the SSI data.

To illustrate, Figure 6 shows the descriptors for the section entitled Collaborative Working. Some of the descriptors combined more than one behaviour, e.g. 'maintains positive expectations' was combined with 'creates the conditions for successful partnership' into one behavioural descriptor. This type of conflation, which occurred frequently throughout the LQF, would be potentially unhelpful when attempting to code interview data against a single behaviour category.

In addition, the LQF behavioural descriptors were broad and general, lacking the specificity that would aid accurate data coding. In the case of a leader who 'creates the conditions for successful partnership', what sort of reported behaviour would warrant this descriptor? What does a leader actually do to demonstrate that they are creating such conditions? A drawback of the LQF for coding purposes was that it did not break down broad skills areas into specifics. As noted by Applied Research (2008), this is a 'looseness of definition', insufficiently focusing on the actions of leaders:

'One potential problem with such frameworks is that they fail to clearly distinguish the capability of leaders (i.e. their competencies) from what leaders actually do (i.e. their roles).' (p.5)

More specific descriptors of action-based behaviours rather than skills-based competencies would support more accurate data coding for the purposes of this study.

Finally, the distinction between the different behavioural levels of 0-3, whilst fulfilling a key purpose of LQF, introduced the additional dimensions of relative seniority and

differential performance, which were not relevant to this study. For these reasons, an alternative leadership framework was sought.



Figure 6. Example of LQF behavioural descriptors for Collaborative Working

To counter some of the concerns outlined above, the researcher decided to use the Indicators of Quality Leadership (IQL©) framework, developed by researchers over several years, and *'derived from reviewing the leadership literature and integrating this with research into effective leadership and performance in healthcare.'* (Applied Research 2008, p.10). The purpose of its development was to enable indicators of leadership to be readily recognised and categorised, thus making it a fit-for-purpose framework.

A full version of the IQL framework is shown in Appendix 13. The framework is structured into three Competency Areas, namely:

- Interacts Authentically
- Acts Effectively
- Conceptualises Issues

Within these Competency Areas, there are 24 Key Competencies, which are defined through 120 Behavioural Indicators. The structure of the IQL is shown in Figure 7 below.



Figure 7. Structure of IQL framework

The IQL contains detailed behavioural descriptors for each leadership competence. Such behavioural descriptors lend themselves readily to behavioural-based research, because they allow objective coding of behavioural data, and thus reduce the risk of researcher bias. To illustrate how much more detailed the IQL descriptors are when compared with those in the LQF, an example is given in Figure 8. Within Competency Area 1, the fifth Key Competence is *e) 'Builds structures that facilitate co-operation and collaboration'*. This Key Competence refers to some of the same leadership behaviours as the LQF example shown in Figure 6 (Collaborative Working), but describe the leadership actions associated with this much more specifically. Other aspects of the LQF Collaborative Working example (eg taking account of differing viewpoints) are specifically and separately described in the first Key Competence of the IQL, namely *a) 'Seeks, understands and values the viewpoint of others.'* It can be seen that detailed, observable behavioural descriptors are central to the IQL, allowing specific data to be coded and attributed to accurate and well-differentiated categories in the framework.

e) Builds structures that facilitate co-operation and collaboration

- i. Sets up and maintains open communication channels to promote information exchange
- ii. Facilitates cooperation within and between organisations by sharing information
- iii. Implements a range of formal and informal team-building development activities
- iv. Establishes cross-agency working and encourages collaborative partnerships
- v. Develops cooperation and teamwork by encouraging key stakeholders to work together

- a) Seeks, understands and values the viewpoint of others**
 - i. Solicits all points of view and uses these perspectives to build consensus
 - ii. Regularly initiates discussion and facilitates open sharing of opinions
 - iii. Harnesses different opinions and capitalises on the benefits of diversity
 - iv. Takes other people's perceptions seriously and empathises with their feelings
 - v. Encourages the differing and preferred working styles of individuals

Figure 8. *Examples of Key Competence descriptors from the IQL framework*

In summary, this section has outlined the need for clear frameworks for analysing the interview data. The process of analysing improvement type data has been illustrated, and the rationale for selecting the IQL framework for analysing leadership behaviour data has been described. Further details about how these frameworks were applied for data analysis purposes are contained in Chapter 6, which outlines the results of the study.

5.5 Q-Sort Methodology

As highlighted in Section 5.1.4, the research methodology aimed to combine both qualitative and quantitative research methods. To complement the rich, narrative-based accounts of leading improvement derived from the semi-structured interviews, the Q-Sort methodology was used to explore leadership behaviours by a different means, and from a different angle.

The name 'Q' Sort comes from the form of factor analysis that is used to analyse the data. Normal factor analysis, called the 'R method', involves finding correlations

between variables (e.g. height and age) across a sample of respondents. The Q method, on the other hand, looks for correlations between respondents across a sample of variables.

Q-Sort methodology is a research method used in a number of qualitative approaches to study people's 'subjectivity'; that is, their personal viewpoint on a particular topic. It was developed by psychologist William Stephenson (1953) and is used both in clinical settings for assessing patients, as well as in research settings to examine how people think about a topic.

The methodology is unusual for a qualitative research approach in that it has some inherent quantitative features. Developed to enquire into aspects such as personal preference or experience of events, the method facilitates conversion of qualitative data into quantitative form and so straddles the interface between qualitative and quantitative research, combining the respective strengths of both (Dennis and Goldberg, 1996).

Q methodology has been used widely in healthcare in such areas as doctor-patient relationships (Morecroft et al 2006) and quality of life (Stenner et al 2003). For the purposes of this study, it offered a means of systematically eliciting the viewpoints of THF Award Holders about behaviours required for leading NHS improvement. It provided a way of quantifying and measuring diverse viewpoints on a wide-ranging topic, identifying discrete factors from the data and highlighting commonly-held mindsets.

The methodology works by compelling participants to prioritise a set of statements in relation to each other, so that a rank order emerges. In this study, this set of

statements (the Q-set) was drawn from the IQL framework, and consisted of the 120 Behavioural Indicators in the framework (as listed in Appendix 13). The over-arching question for the Q-Sort was : ‘Which of these leadership behaviours do you feel are most important for leading improvement?’

In practical terms, the Q-Sort exercise was run by the researchers at a meeting of THF Award Holder alumni held in London in the Spring of 2009. 50 participants completed the Q-Sort, of which 48 were different respondents from those who were interviewed in the study. This sample size was consistent with the guideline that Q-Sorts generally require between 40-80 respondents. (Watts & Stenner 2005) However, they acknowledge that *‘this is only a rule-of-thumb... effective Q studies can be carried out with far fewer participants’* (p.79).

Participants worked individually and began by reading all 120 Q-set statements and sorting them into three piles – ‘those that least reflect my view’, ‘those on which I have no strong views’, and ‘those that most reflect my view’. They then proceeded to a more refined sorting using a scale of –4 (least agree) to +4 (most agree).

The completed set of sorted statements was then arrayed as a quasi-normal distribution: participants were asked to allocate their choices into a pre-set paper-based scale, with a predetermined number of items allocated to each scale point (as illustrated in Figure 9). The use of ranking, rather than asking respondents to rate their agreement with statements individually, is based on the notion that people tend to think about ideas in relation to other ideas, rather than in isolation.

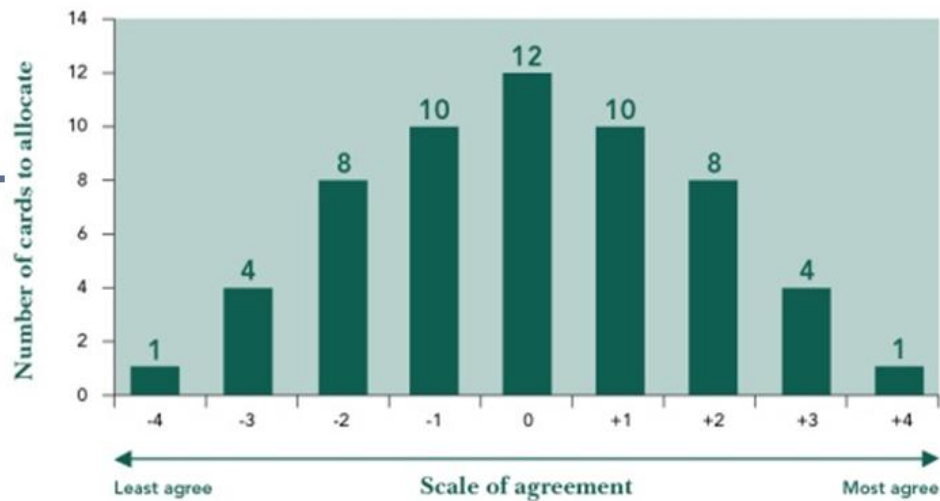


Figure 9. Q-Sort pre-determined rating scale

Participants completed the Q-Sort with no particular time pressure, after which their papers were systematically bundled, to retain the physical ordering of the cards they had placed on the paper scale, and removed for analysis. The details of the data analysis and results are provided in Chapter 6.

The Q-Sort was used deliberately as a method to contrast the semi-structured interviews. The latter provided insights into how individuals described their own behaviour when leading NHS improvement. The former provided a more generic sense of how leading improvement was typically viewed in behavioural terms by a sample of NHS middle and senior leaders. Combined together, the two methods aimed to address the key aspect of the research relating to how improvement leadership is enacted behaviourally in the NHS.

5.6 Summary of Research Methodology

In summary, a multi-method approach was adopted for the study. This included:

- Development of a Healthcare Improvement Typology – as the key method for measuring and classifying different types of improvement work;
- Semi-structured interviews – to gather self-reported data about how NHS leaders lead improvement work, in behavioural terms;
- Q-Sort methodology – to identify how leaders conceptualise leadership behaviours in relation to service improvement work in the NHS.

The first of these, the development of a Healthcare Improvement Typology, was for data analysis purposes rather than data collection. The first stage of the study was designed to gather documentary data about the type of service improvement work undertaken by participants, combined with reviewing the literature, to develop a typology for classifying this work, so as to differentiate between the different types of improvement work involved.

The first data collection method, namely the semi-structured interviews, aimed to gather self-reported data about how, in leadership terms, the individual pieces of improvement work had been carried out by participants. The second method, the Q-Sort methodology, was used to collect data about how NHS leaders think about the behaviours (of self and others) involved in leading service improvement. The Healthcare Improvement Typology was combined with the IQL framework to form the basis for analysing the data.

The overall research methodology aimed to triangulate the conceptual (mindset) data with the empirical (behavioural) data. Webb et al (1966) emphasise the importance of data triangulation, stating that when an area under research is subjected to multiple complementary methods of testing,

'it contains a degree of validity unattainable by one tested within the more constricted framework of a single method.' (p.174, cited in Denzin 1977)

An overview of the whole study methodology, illustrating how the study design allows for data triangulation, is provided in Figure 10. A detailed account of the data analysis is contained in the next chapter, which presents the results of the study.

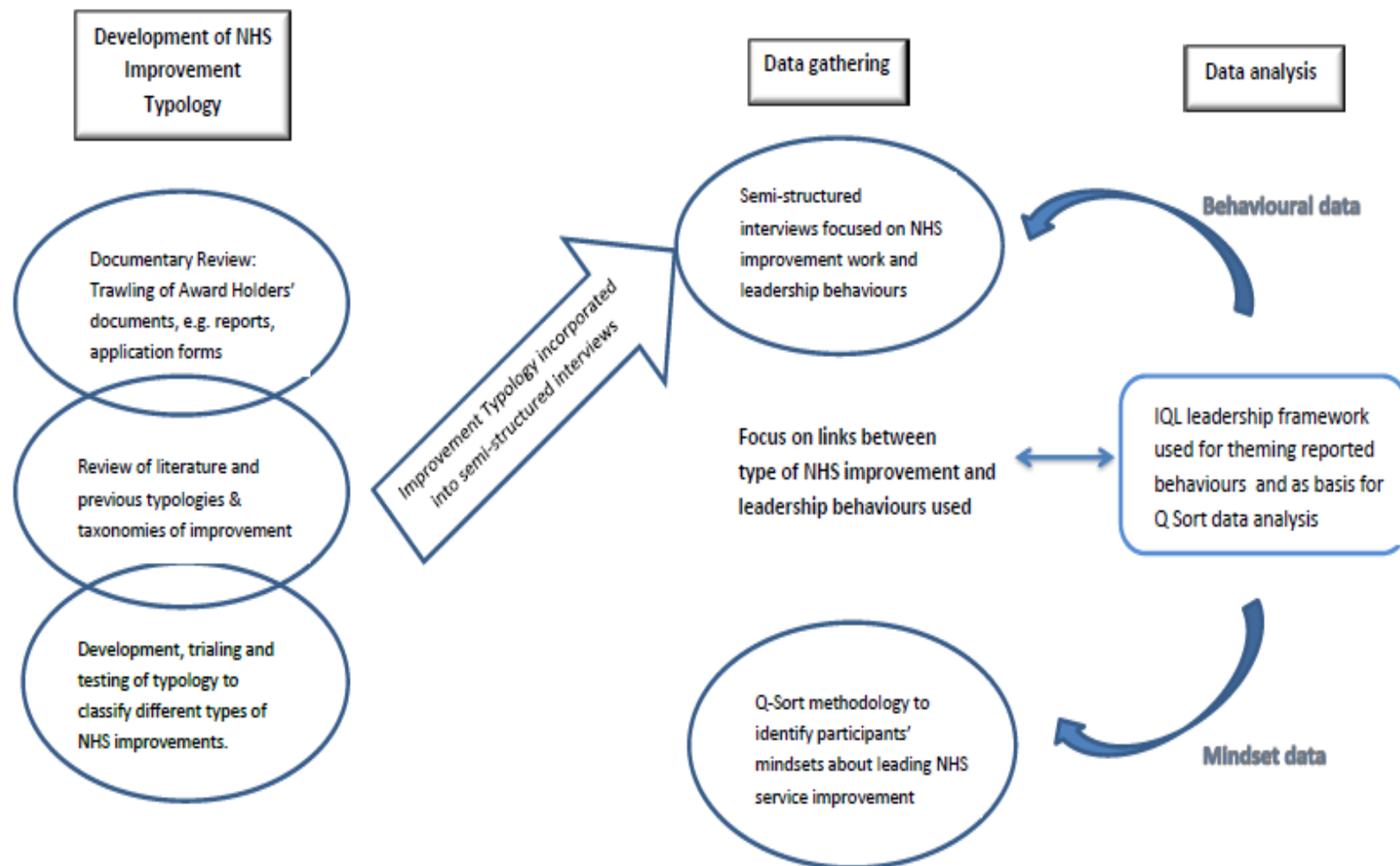


Figure 10. Overview of Study Methodology

5.7 Limitations of the Methodology

It can be seen from the description of the research methods used that all the data for the study were self-reported by the NHS leaders being studied. This is an obvious limitation in the study, and is important to take into account when considering the findings of the research.

Some researchers suggest that self-reported accounts of a person's actions and behaviours can be viewed as 'justifications' or 'excuses' (May 2001, p140), using the benefit of post-hoc rationalisation to explain why something was done. This is one of several criticisms of self-reported interview data, which must be taken into account in considering the validity and use of any data in drawing conclusions. Other problematic areas associated with self-reported data include the fact that accounts of events given by the interviewee are from their perspective only, and may be deemed inaccurate or incomplete from another party's perspective. In this study, the researchers had to rely on the account given by the Award Holder of their own approach to leading the improvement work.

It could be argued that detailed accounts about a leader's behaviour could have been obtained from colleagues involved in the improvement work in those cases where it was still current. This would have allowed a degree of triangulation between data from a range of perspectives, offering what Denzin (1977) refers to as triangulation by data source. However, the number of cases for which this might have been possible was so small that significance levels would not have been feasibly indicated in any associations in the dataset. A more complete understanding of the behaviours

undertaken by the respondents could also have been gained through observation in the workplace over time. In Denzin's (ibid) categorisation of triangulation, this approach would have provided data triangulation over time, potentially providing the benefit of observing on-going interactions. However, this was beyond the parameters of the study given its prohibitively resource-intensive nature.

To provide an element of counter-balance within the self-reported data, a degree of triangulation in the data was possible through comparing the behavioural data from the interviews with the mindset data from the Q-Sort. Although there were 2 people who provided both Q-Sort and interview data, the two population samples were mainly made up of different individuals. The data patterns emerging from each method could therefore be viewed as independent.

This provided an element of what Bryman (2008) refers to as 'confidence in the findings', which 'can be enhanced by using more than one way of measuring a concept'. (p.611). He also stresses the way that triangulated data can reinforce findings from different sources and augment the strength of different sets of data which point in a similar direction. Such triangulation between research methods attempts to achieve a deeper understanding of the phenomenon being researched rather than seeking an objective reality. As Denzin & Lincoln (2008) highlight,

'triangulation is not a tool or a strategy of validation, but an alternative to validation. The combination of multiple methodological practices is best understood, then, as a strategy that adds rigor, breadth, complexity, richness and depth to any inquiry.' (p.7)

CHAPTER 6 RESULTS

6.1 Introduction

The research methods used have been described in Chapter 5 in a sequential manner, to illustrate how each made a separate contribution to the study. When considering the results of the study, this chapter continues in this vein. The chapter firstly outlines how the various data emerging from the separate research methods were analysed. Secondly, the results from the analysis are presented, with a focus on how these relate to the central research questions of the study, namely the associations between NHS leadership and improvement.

For the purposes of clarity, Figure 11 provides a summary overview of the various research methods used, the data derived and the different analyses undertaken, illustrating how these combine together to provide results which are pertinent to the core research questions. 36 semi-structured interviews generated over 60 hours' worth of transcribed qualitative data, and 50 Q-Sets provided both qualitative and quantitative data.

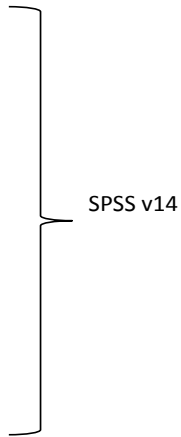
Research Method	Data Derived	Analysis Tool	Analysis Process	Results Produced
Semi-Structured Interviews	Qualitative descriptions of improvement work undertaken	Healthcare Improvement Typology  SPSS v14 IQL Framework	Typology ratings attributed to each example of improvement Correlation analysis x2: 1. Between overall typology ratings and leadership behaviour frequency 2. Between ratings of separate typology dimensions and leadership behaviour frequency Qualitative data coded against IQL and frequency recorded of reported leadership behaviours	Data Range of typology ratings Correlational data showing relationships between typology ratings and leadership behaviour frequencies. Frequency chart of leadership behaviours (by individual) Frequency chart of leadership behaviours (aggregated for all respondents)
	Qualitative accounts of leadership behaviours used to enact improvements			
Q-Sort	Quantitative rankings of IQL behavioural statements (by individuals)	SPSS v15	Correlation analysis across all individually-ranked datasets Factor analysis across all individual datasets	Aggregated ranking of perceived relative importance of leadership behaviours (across all respondents) Data groupings where respondents have similar beliefs or 'mindsets' about which leadership behaviours are important to improvement.

Figure 11. Summary overview of data analysis leading to results

6.2 Analysis of Improvement ‘Type’ Data

The first data analysis aimed to clarify the type of improvement work being undertaken by NHS leaders in the study. As part of the semi-structured interview, each respondent described a piece of improvement work they had led during their time on the leadership scheme. As illustrated in Section 5.4.1, the qualitative data gleaned from the interviews about the improvement work were used to assign a quantitative rating to it, against the Healthcare Improvement Typology (eg. 1111 to 7777). The higher the rating, the more complex its nature, based on the dimensions of Level, Focus, Process and Intended Impact (LFPI). This rating was treated as an indicator of complexity for each piece of improvement work undertaken.

6.2.1 Data Range

The ratings assigned to the improvement work reported by the respondents ranged from 1121 – 5366/ 5554. Each integer within the rating is an independent variable, each relating to a separate dimension of the Healthcare Improvement Typology. The full range of improvement types identified is shown in Figure 12. For the purposes of illustrating the range of ratings, the data are presented here in numerical order. The higher each individual rating, the higher the complexity of that dimension. At the low end of this range, the improvement might, for instance, have involved an attempt to reduce mortality rates for elderly people undergoing a specific major surgical procedure in one department of a hospital. At the high end of this range, improvement work might have involved, for example, setting up from scratch a pan-city, community-

based multi-agency service for previously unidentified patients; or systematically improving nutrition to all patients across several trusts in a health community; or integrating children's services across all related agencies within a health community.

ID	'Type' Rating (LFPI)	ID	'Type' Rating (LFPI)
1	1121	19	4444
2	1221	20	4455
3	1234	21	4533
4	1332	22	4542
5	2242	23	4542
6	2344	24	4551
7	2244	25	4554
8	2445	26	4554
9	2446	27	4664
10	3334	28	5344
11	3335	29	5354
12	3341	30	5355
13	3343	31	5366
14	3452	32	5421
15	3535	33	5444
16	3543	34	5542
17	4346	35	5554
18	4354	36	5554

Figure 12. Data Range of Improvement 'Types'

It is clear that the quality improvement work undertaken by the sample of THF Award Holders studied, did not encompass the whole spectrum covered by the Healthcare Improvement Typology, which extends up to rating 7 on each dimension. This is not surprising, given that the study population typically comprised clinicians and managers in middle to senior leadership positions in local healthcare organisations. Improvements where ratings extended into the realms of 7 would be likely to be led by

people in regional or national level roles and bodies, rather than within single local healthcare organisations.

On the Level dimension, the sample covered the range from 1-5. This illustrates that improvement work done by THF Award Holders tended to take place within a single organisation, a single health economy, or across a region, but did not tend to stretch to a national level or beyond.

In relation to the Focus dimension, the ratings ranged from 1-6, with just one example of ratings 1 and 6, but the majority of the sample falling in the range 2-5. This is likely to be explained by the fact that the Focus of the improvement work would correspond in broad terms to the level at which the improvement was taking place. Hence, as the level of improvements was limited to rating 5, it is unlikely that the Focus of the changes would fall into the realms of the descriptor 'unlimited numbers of people'. Such indefinable numbers, with associated Focus ratings of 6 or 7, would relate more obviously to national and international levels of work, which are not represented within our sample.

The highest Focus rating of 6 related to a project to develop a self-management strategy for all people with long term conditions across a whole London borough, where the numbers of people involved and the range of conditions involved were inordinate but not unlimited. The lowest Focus rating of 1 related to a project to reduce the mortality rates of elderly patients admitted for emergency laparectomy. In this case, the Focus is clearly on a very specific condition, for a very specific, defined group of people.

When considering the Process dimension, the range covered by the sample was 2-6. The extremes at each end of the spectrum (ratings 1 and 7) were not relevant to the THF Award Holders studied, in that nobody was involved with improvement work affecting only one or two people (rating 1), nor was anybody involved with changes which were inordinately complex with indefinable numbers of people to influence (rating 7). Only 2 pieces of improvement work were rated 2 for Process and only 2 were rated 6, with the rest falling in the narrower range of 3-5. An example of a 2 rating for Process would be a project which aimed to reduce post-operative DVT (deep vein thrombosis), in which a small number of individuals were the main people to be influenced in changing their practice, to model the change to others. A 6 rating for Process was attributed to a project where stakeholders from a very wide range of agencies were being engaged in establishing a completely innovative mobile service for detecting and treating tuberculosis among the homeless and prison populations across London.

In relation to the Intended Impact dimension, the range of ratings for the sample of THF Award Holders was between 1 and 6. There were no examples of improvement work where the impact appeared to be sustainable indefinitely, which would have warranted a rating of 7. This was possibly partly due to the lack of time passing since the improvement work was done, meaning that this kind of assessment of sustainability was not yet appropriate. However, in those improvement projects with a 6 rating for Intended Impact, there were typically changes which had become largely embedded as a new way of doing things, with direct impact on patient experience and clinical outcomes. A new way of managing the transition of teenagers with diabetes

into adult services, would be such an example. The lowest rating of 1 for Intended Impact tended to be associated with attempted improvements where the goalposts changed mid-project, meaning that the work was never completed or where the post-holder moved jobs or responsibilities changed. Follow-through on the project was therefore rendered unrealistic or impossible.

The relevance of these results relating to improvement 'type' is considered in section 6.6.

6.3 Analysis of Interview Data

As detailed in section 5.3, semi-structured interviews were conducted with 36 THF Leadership Award Holders, all of whom were middle- or senior-level clinicians or managers. The aim of these interviews was to elicit descriptions of the improvement work each interviewee was undertaking, to enable the improvement 'type' to be determined, and to gather data about the leadership behaviours used to enact the improvements. This section explains in detail how the interview data were analysed.

The 36 semi-structured interviews were fully transcribed from audio recordings. This resulted in over 60 hours' worth of transcribed data. Each transcription containing data relating to the nature and aims of improvement work undertaken by the interviewee and the leadership behaviours reported by the interviewee in effecting that improvement work.

As part of the semi-structured interviews, detailed descriptive accounts were obtained from all respondents about the leadership behaviours they had used to lead the improvements. These accounts consisted of verbal explanations from each participant

about how he or she acted or behaved to lead the work. For all the interviews, the researcher used the full transcripts to code and analyse the data, in order to identify the leadership behaviours reported, and the frequency with which different behaviours were mentioned. As detailed in Section 5.4.2, the framework used for analysing reported leadership behaviours was the Indicators of Quality Leadership (IQL®). A reminder of the structure of this framework is provided in Figure 13 for reference.



Figure 13. Structure of the IQL Framework

There were three different levels at which the data could have been coded. One option was to code data according to the Competency Areas. However, there are only 3 Competency Areas within the IQL and this would not have differentiated the data sufficiently, as the analysis would be at too high a level to be useful. At the other extreme, there was the option of coding the data according to the 120 Behavioural Indicators within the IQL. This approach would have allowed the detail of the data and the subtle differences between the meaning of data to be most accurately captured and reflected, which was deemed important for identifying patterns in the data. However, the main drawback of this approach was that in a 90 minute interview, it

was unlikely that data associated with 120 different Behavioural Indicators would have been reported. This detailed level of analysis therefore risked yielding no data for many of the 120 Behavioural Indicators. Analysis at the mid-level, according to the 24 Key Competencies, offered an approach which differentiated the subtleties in the data sufficiently while also allowing similar data to be grouped into categories which would show any emerging patterns.

Given the options, an approach was adopted which intended to combine rigour with pragmatism. The author decided to code the data according to the most detailed level, using the 120 Behavioural Indicators. This meant that if, at a later stage, it became necessary to interrogate the data at this level of detail in order to identify or explore data patterns, it would not involve a repeat of the coding process. Having coded at this level, the author then aggregated the Behavioural Indicator data into the 24 Key Competences, for reporting purposes.

For each interviewee, the behavioural data were therefore coded according to the 120 IQL Behavioural Indicators. To illustrate the coding process, an example is given in Appendix 14. Within this example, one extract of the verbatim interview data extract is shown in Figure 14:

“They sat and listened to me in great appreciation but it still didn’t happen. Then, when we are going on digging on, you know, which person is actually capable of doing it, we found a lady who was one of our secretaries in the past — for me and my boss — and then we rang

*her and said, you know, this is what we want to do and she was like
'yeah, what's the problem, I'll do it.' "*

Figure 14. *Extract of verbatim interview data (ID 06)*

The statement contained in this excerpt was coded as 1dv, which relates to the Behavioural Indicator 'Engages the support and allegiance of informal networks in formal situations' (IQL dimension 1dv, comprising competency area 1; key competence d; behavioural indicator v), as marked in red in Figure 15.

Indicators of Quality Leadership (IQL ©)

COMPETENCY AREA 1: INTERACTS AUTHENTICALLY

a) Seeks, understands and values the viewpoint of others

- i. Solicits all points of view and uses these perspectives to build consensus
- ii. Regularly initiates discussion and facilitates open sharing of opinions
- iii. Harnesses different opinions and capitalises on the benefits of diversity
- iv. Takes other people's perceptions seriously and empathises with their feelings
- v. Encourages the differing and preferred working styles of individuals

b) Understands personal impact and influence on others

- i. Anticipates how other parties may react to the content of personal communication
- ii. Makes convincing and balanced arguments, tailored to others' needs and expectations
- iii. Takes account of others' reactions re: tones of voice, gestures and facial expressions
- iv. Monitors others' understanding of what is discussed and corrects misunderstandings
- v. Interprets the face-to-face impact of own conduct on others' behaviour and responses

c) Values the skills and expertise of others

- i. Capitalises on the range of skills and talents present in the organisation
- ii. Identifies and nurtures talent to build capacity and capability
- iii. Offers support, rewards achievements and celebrates success
- iv. Gives clear constructive feedback, timely praise and focused recognition
- v. Delegates work to provide challenge and opportunities to learn and develop

d) Creates networks for the creation and sharing of ideas

- i. Identifies and consults with key stakeholders to obtain buy-in for ideas
- ii. Build and enthuses a wide base of support for innovation and change
- iii. Develops and sustains a diverse range of internal and external relationships
- iv. Invests time to establish, sustain and broaden information and intelligence networks
- v. Engages the support and allegiance of informal networks in formal situations

Figure 15. Illustration of IQL Behavioural Indicator 1dv

Whereas the interviewing had been carried out by three different members of the research team, including the author, the analysis and coding for all the interviews was undertaken solely by the author. This decision was taken in order to maximise consistency within the analysis. An additional benefit was that the author became very familiar with the full span of data, and developed an in-depth understanding of the coding process in practice. This was of particular importance when making decisions where some ambiguity occurred in how to code certain data. For instance, there were instances when one piece of data could have justifiably been attributed to more than one behavioural indicator. Such cases tended to fall into one of two categories. Firstly, instances occurred whereby one piece of data seemed to potentially relate to two very similar behavioural indicators, and a choice needed to be made about which one to allocate it to. In these cases, the author was able to check against comparable data which had been coded from other transcripts, to ensure that the coding category used was as accurate and consistent as possible. The second instance where ambiguity in coding occurred typically involved a single piece of data which supported two distinct behavioural indicators. An example of this is illustrated in Figure 16 by means of a verbatim quote from a semi-structured interview:

"I deliberately copied it into somebody who had an important clinical and managerial role in the breast service, but who is notoriously prickly and is notoriously against all these sort of 'airy fairy' [56:52] ideas. So to try and to make absolutely sure there could be no way that she could feel that we were trying to spring a fait accompli on her."

Figure 16. Extract of verbatim interview data (ID 29)

This quote contains two sentences, which for analysis purposes were regarded as separate pieces of data. The quote contains evidence of three distinct IQL behavioural indicators, as shown in Figures 17, 18 and 19.

Data derived from interview	Relevant behavioural indicators	
<i>'who is notoriously prickly and is notoriously against all these sort of 'airy fairy' [56:52] ideas.'</i>	1j)iv Maintains an awareness of people's personalities and motivations and adapts to this.	
<i>'I deliberately copied it into somebody So to try and to make absolutely sure there could be no way that she could feel that we were trying to spring a fait accompli on her.'</i>	1j)ii Anticipates the likely reaction and selects communication style to meet audience needs.	2f)iv Selects the best time to announce a decision to maximise positive impact

Figure 17. Illustration of the same data evidencing several different behavioural indicators (ID 29)



COMPETENCY AREA 1: INTERACTS AUTHENTICALLY

j) Adapts style of communication to audience

- i. Seeks to understand others' non-verbal cues and adjusts presentation style accordingly
- ii. Anticipates the likely reaction and selects communication style to meet audience needs
- iii. Explains complex information using a level of language appropriate for the audience
- iv. Maintains an awareness of peoples personalities and motivations and adapts to this
- v. Asking clarifying questions and reflects back to ensure message has been understood

Figure 18. Illustration of IQL Key Competence 1j and associated behavioural indicators

Indicators of Quality Leadership (IQL ©)

COMPETENCY AREA 2: ACTS EFFECTIVELY

f) Makes important decisions in a timely manner

- i. Identifies and consults with the appropriate key decision makers on emerging issues
 - ii. Demonstrates understanding of units/departments and factors this into any decisions
 - iii. Anticipates barriers to rapid decision-making and takes steps to remove these
 - iv. Selects the best time to announce a decision to maximise positive impact
 - v. Draws on own knowledge and experience to make balanced and timely judgments
-

Figure 19. *Illustration of IQL Key Competence 2f and associated behavioural indicators*

The detailed analysis involved in coding verbatim quotes from each interview typically involved resolving many examples such as this. The challenge for the researcher was often to decide how many times to count a single piece of data which supported different behavioural indicators. This was of crucial importance, because the aggregated instances of each behavioural indicator being reported were to be used to indicate the relative frequency with which different leadership behaviours were reported across the study, and would provide the basis for the correlational analysis between improvement type data and leadership behaviour data. A consistent approach to coding and counting the data was therefore essential.

From the two sentences of interview data extracted for this example, it was necessary to pinpoint exactly which aspects of leadership behaviour were being reported. Analysis of the two sentences highlighted 3 aspects of this interviewee's leadership approach: leading with an awareness of other people and their idiosyncrasies; communicating

using a style to suit other people's idiosyncrasies; and communicating in a timely way to accommodate likely reactions to ideas. The first two of these both provided evidence for Key Competence 1j (Adapts style of communication to audience). Because the data was being coded at the Behavioural Indicator level (of which there were 120), and counted at the Key Competence level (of which there were 24), the two separate sentences in question counted as two separate pieces of evidence that this interviewee reported Key Competence 1j. One of these pieces of data also provided evidence for Key Competence 2f (Makes important decisions in a timely manner), so contributed to the overall count for this Key Competence for this interviewee.

A working principle is evident in this example of the data analysis process, which was applied to the analysis of all the interview data. It was that a single piece of qualitative data (such as one sentence) could be counted against separate Behavioural Indicators if these formed part of different Key Competence areas. However, as data were being counted at the Key Competence level, to avoid double-counting, a single piece of data, such as a single sentence, could not be coded to two different Behavioural Indicators, as this would lead to the sentence being counted twice for that Key Competence area, and over-representing that Key Competence in the interviewee's leadership behaviour profile.

A summary document was created for each interviewee, which brought together all the coded data relating to reported leadership behaviours, mapped against the 24 Key Competences in the IQL. An example of this summary document is provided in Appendix 15.

Competency Area	Key Competency	Behavioural Indicator
1: Interacts Authentically	c) Values the skills and expertise of others	<p>i) Capitalises on the range of skills and talents present in the organisation</p> <p>‘But if any of our junior staff wants to write and publish it they’ll have my full support.’</p> <p>v) Delegates work to provide challenge and opportunities to learn and develop</p> <p>‘I now I do get a fairly experienced person and many times I just stand back and watch these relatively young doctors running the system. And it is a great boost to their confidence that they can run the system, and just my experience alone doesn’t matter. It goes to show that anyone can run the system. They have, you know, two good years of surgical experience. I mean, they can do a hernia, they don’t have to follow-up their patients and the patients do well. So it really boosts their confidence.’</p> <p>iii) Offers support, rewards achievements and celebrates success</p> <p>‘I share my data; anybody who wants to study this process and write about it. And there is one or two other fairly special things that we are doing, like this one-stop. But I share that as well, you know. If you want to study it and do an audit or do a poster or do a publication, you want to include my name/don’t want to include my name; I really don’t care, go and do it.’</p> <p>iii) ‘What I mean by that is this project in my hospital, I would never call it <i>my</i> project, it always goes in at least three names: two consultants and me. For example, local radio and our Trust has a link up, and when they want to speak about one-stop surgery I don’t grab all the chance often even though I run that service, there’s an anaesthetist who goes, there’s a service manager who goes, you know.’</p>

Figure 20. Illustration of how qualitative data was coded by Behavioural Indicator and aggregated at the Key Competency level

A record was made of the frequency with which each Key Competency was reported. In the Figure 20 example, the frequency score for the number of times data was recorded for Key Competency '1c' (Values the skills and expertise of others) would have been 4, as there are 4 separate pieces of qualitative data, in the form of verbatim quotes, which could be attributed to the Behavioural Indicators within that Key Competence. Using this approach, a frequency chart (see Figure 21) was produced for each interviewee to indicate how the data from that interview was spread across the IQL framework. This was represented graphically to show the individual leadership profile for each interviewee (Figure 22).

Interacting Authentically										Acts Effectively								Conceptualises Issues					
a	b	c	d	e	f	g	h	i	j	a	b	c	d	e	f	g	h	a	b	c	d	e	f
0	0	4	2	0	2	0	1	1	1	0	0	0	0	0	0	0	1	0	1	1	0	0	0

Figure 21. Chart showing frequency of reported Key Competencies for one interviewee (ID 06)

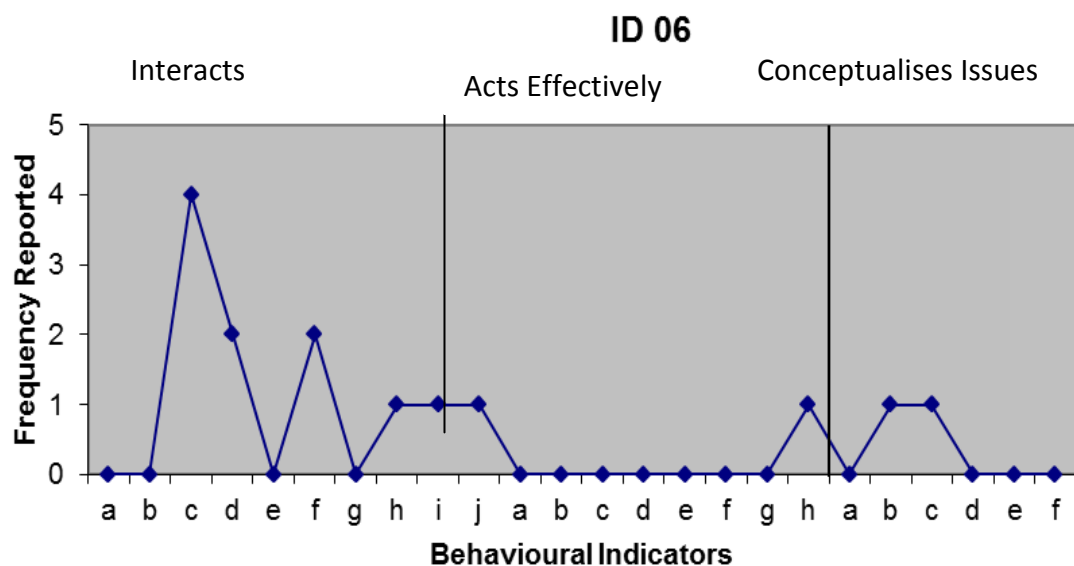


Figure 22. Graphically represented profile of IQL reported behaviours for one interviewee (ID 06)

A summary of frequency data relating to reported leadership behaviours for all SSI interviewees is shown in Figure 23. These results are considered in more detail in section 6.5, and discussed in detail in Chapter 7.

ID	Interacts Authentically										Acts Effectively								Conceptualises Issues							Authentic	Action	Concept
	a	b	c	d	e	f	g	h	i	j	a	b	c	d	e	f	g	h	a	b	c	d	e	f	ALL			
1	1	0	0	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	8	6	0	2
2	0	0	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	7	4	1	2
3	0	0	0	1	2	1	0	2	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	8	6	2	0
4	0	0	1	0	0	1	2	0	0	0	0	3	0	0	0	1	0	4	1	0	0	0	0	0	13	4	8	1
5	1	0	2	0	0	3	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2	1	15	12	0	3
6	0	1	0	1	2	3	1	0	1	1	1	1	0	0	1	0	1	0	1	0	0	1	0	1	17	10	4	3
7	0	0	4	2	0	2	0	1	1	1	0	0	0	0	0	0	0	1	0	1	1	0	0	0	14	11	1	2
8	1	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	2	0	0	0	0	0	1	7	3	3	1
9	0	0	2	1	0	0	0	1	0	0	0	0	0	0	1	1	0	2	0	1	0	0	0	0	9	4	4	1
10	1	0	5	2	1	2	2	1	1	1	1	3	1	0	1	0	1	1	2	0	0	0	3	0	29	16	8	5
11	3	1	2	0	1	0	0	0	0	0	1	1	0	0	0	0	1	0	0	0	2	2	1	0	15	7	3	5
12	4	1	1	0	0	2	1	0	0	0	0	2	1	0	0	0	1	0	0	0	0	0	0	0	13	9	4	0
13	0	0	0	1	1	1	2	0	0	1	0	0	1	0	0	0	0	0	0	0	1	1	0	0	9	6	1	2
14	2	1	0	0	1	2	3	1	0	3	2	0	0	0	1	1	2	8	1	0	0	0	1	1	30	13	14	3
15	5	2	0	2	1	1	0	0	1	0	3	0	3	1	0	0	0	1	0	3	0	1	0	3	27	12	8	7
16	0	0	2	1	1	2	0	3	2	0	0	2	1	0	0	0	1	1	0	0	0	1	0	1	18	11	5	2
17	3	2	1	0	0	2	0	1	0	1	0	1	0	0	0	0	1	0	0	0	0	1	0	0	13	10	2	1
18	3	0	5	1	1	1	4	0	1	1	0	2	2	0	0	0	1	0	1	0	0	0	0	0	23	17	5	1
19	0	0	0	0	1	0	0	0	2	0	4	0	0	0	1	0	0	3	0	1	0	0	0	1	13	3	8	2
20	4	4	3	3	4	4	4	3	0	1	1	0	0	1	4	1	1	2	1	0	1	2	1	0	45	30	10	5
21	1	0	1	0	1	4	1	4	0	0	0	2	1	1	1	0	0	0	0	0	0	1	1	1	20	12	5	3
22	0	0	2	0	1	1	1	0	0	0	1	1	0	0	0	0	2	0	0	0	0	0	0	0	9	5	4	0
23	2	0	0	1	0	0	0	0	0	1	1	1	1	0	1	0	1	0	0	0	0	0	0	2	11	4	5	2
24	1	0	3	1	0	1	2	0	0	0	1	0	1	0	1	2	2	3	0	0	0	0	0	1	19	8	10	1
25	0	0	2	2	1	1	0	1	0	0	1	1	0	0	0	0	2	2	0	0	0	0	0	0	13	7	6	0
26	1	1	5	1	0	0	3	2	0	2	2	1	1	0	0	0	1	0	0	0	2	1	0	2	25	15	5	5
27	1	1	1	0	0	2	0	0	0	2	0	0	1	0	0	0	0	0	0	1	0	0	0	0	9	7	1	1
28	1	1	1	1	0	2	0	1	1	0	1	0	0	0	0	0	0	3	0	0	1	0	1	2	16	8	4	4
29	3	2	1	2	0	2	4	1	0	5	2	0	0	0	1	3	1	0	2	0	0	1	1	1	32	20	7	5
30	3	0	3	2	4	3	0	0	0	0	3	1	1	0	0	0	1	2	1	0	0	0	0	1	25	15	8	2
31	3	0	2	1	4	3	1	1	0	1	2	2	4	2	2	1	0	1	1	1	1	1	0	1	35	16	14	5
32	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	1	0	1
33	2	0	1	0	1	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	7	5	2	0
34	1	0	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	7	5	0	2
35	0	1	0	1	3	0	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	9	7	1	1
36	0	0	0	0	2	1	0	0	0	0	0	0	0	0	3	0	0	1	0	1	0	0	0	0	8	3	4	1

Figure 23. SSI Aggregated Reported Behaviour Frequencies at level of 24 Key Competences

6.4 Analysis of Q-Sort Data

The Q-Sort data were analysed to provide an overall ranking of the relative importance of leadership behaviours in improvement, as perceived by respondents. This was undertaken using the analysis software SPSS v14.

Initially, the Q-Sort data were analysed at the level of 120 Behavioural Indicators, leading to the ranking shown in Appendix 16. However, in order to compare the patterns emerging from the Q-Sort data with those suggested by the interview data, it was necessary to undertake an analysis at the level of the 24 Key Competences rather than at the level of the 120 Behavioural Indicators. The data were therefore aggregated into the 24 Key Competence categories, and the resulting ranking is shown in Figure 24.

Rank	
1	Values the skills and expertise of others
2	Empowers others to inspire and create commitment
3	Builds confidence and trust in others
4	Seeks, understands and values the viewpoint of others
5	Creates Strategies to influence others through persuasive reasoning
6	Identifies risks and opportunities
7	Explores new suggestions and solutions
8	Tolerates ambiguity to promote creative solutions
9	Creates networks for the creation and sharing of ideas
10	Identifies links between the wider system and its components
11	Specifies roles, tasks and performance standards
12	Responsive to changing or emerging internal and external context
13	Builds structures that facilitate co-operation and collaboration

Rank	
14	Aligns people, tasks and resources
15	Adapts style of communications to audience
16	Communicates in a clear and compelling way
17	Understands personal impact and influence on others
18	Manipulates complex facts and opinions
19	Articulates and formulates key issues clearly
20	Makes important decisions in a timely manner
21	Evaluates options to create powerful decisions
22	Identifies project implications
23	Creates clarity from diverse perspectives
24	Structures, analyses and integrates hard and soft data

IQL Competency Areas:

Interacts Authentically
Acts Effectively
Conceptualises Issues

Figure 24. Key Competences in rank order from Q-Sort data analysis

In addition to the ranking analysis, the Q-Sort data were subject to a second analysis, to ascertain how similar or different the respondents were in the way they thought about the behaviours needed for leading improvement. Within Q-methodology, ‘factors’ refer to groupings of people who sort the items provided into a similar order, indicating that they have similar ways of thinking about the core question. In this study, the core question on which the Q-Sort was based was ‘Which of these leadership behaviours do you feel are most important for leading improvement?’. The Q-Sort required participants to sort 120 statements about leadership behaviours from

the IQL framework into an order which reflected their relative importance to leading improvement. This second analysis was undertaken using SPSS v15 and allowed correlations between respondents to be identified, based on the relative rankings given by each respondent on the leadership behaviours in the IQL. These correlations indicated three groupings amongst the respondents, where the way respondents had ranked the leadership behaviours was similar in a statistically significant way. 35 of the 50 respondents were significantly linked to one of these three groupings on the basis of the order in which they had ranked the items, showing that they had significantly similar views about which leadership behaviours were most important. The remainder of the respondents (15 people) were not significantly similar to others in the sample and therefore did not feature in a grouping. The three groupings represented different 'mindsets' or ways of thinking about leading improvement. They are detailed below, showing the items from the IQL which combined in a statistically significant way to create each grouping. The labels have been assigned to each of these groupings by the author in order to differentiate and refer to them and to capture the essence of each mindset. The results of this analysis are presented in Section 6.5.3.

6.5 Leadership Behaviours Associated with Service Improvement

By means of reminder, the study included two main methods for gathering data about which leadership behaviours are associated with service improvement. The first method was the semi-structured interviews, which obtained reports about how NHS leaders *behave* when leading NHS improvement. The second method, the Q-Sort,

derived data about what NHS leaders **believe** to be important behaviour when leading NHS improvement. Results from both methods are presented in this section.

6.5.1 How NHS improvement leaders report their own behaviour

The interview data were intended to provide an insight into the enacted leadership behaviours of respondents when leading improvement, and the purpose of the Q-Sort data was to indicate respondents' 'mindsets' about what is important in leading improvement. The former therefore had its focus on what respondents **do** in behavioural terms when leading improvement, and the latter on what respondents **think** is behaviourally important in leading improvement. A consideration of both these aspects of leadership behaviour was intended to shed some light on the key research aim of identifying which leadership behaviours are associated with improvement in the NHS.

The summary of frequency data relating to reported leadership behaviours for all interviewees is shown in Figure 23. This is represented graphically in Figure 25, where a pattern of reported leadership behaviours starts to become apparent.

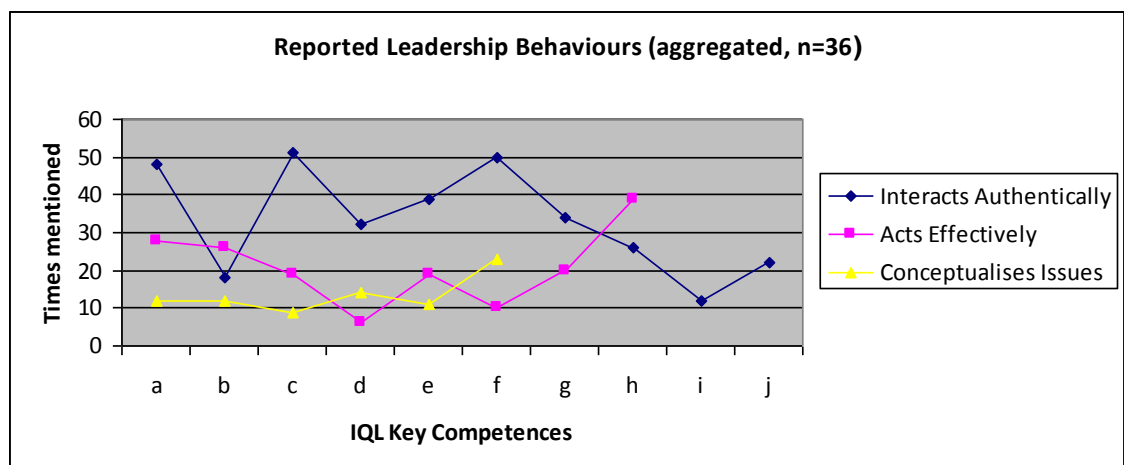


Figure 25. *Self-reported leadership behaviour data from all semi-structured interviews*

When interpreting Figure 25 visually, it appears that overall, the frequency represented by the pink and yellow lines (Acts Effectively and Conceptualises Issues) tends to be lower than the frequency represented by the blue line (Interacts Authentically). Whilst this is not the case for every data point, the trend seems to be that the Interacts Authentically data has higher frequency overall than the other two data categories. Any attempt to establish a 'cut-off' frequency level, in order to determine what might be classed as high and low frequency, is to some extent arbitrary with such a small dataset. Nevertheless, if such a cut-off point were sought, the frequency level of 30 appears to divide the majority of data points falling below this line from a minority which fall above. Of the 24 Key Competences represented on the graph, 17 fall below this line and only 7 lie above it, and of those 7, 6 are on the blue data line, representing the Interacts Authentically category. The results therefore indicate that these seven behaviours are most frequently reported in terms of leading improvement.

Listed below, the first six of these fall within the Key Competence of 'Interacting Authentically' and the other one (listed last) is part of the Key Competence called 'Acting Effectively'.

- Seeks, understands and values the viewpoint of others
- Values the skills and expertise of others
- Creating networks for the creation and sharing of ideas
- Builds structures that facilitate co-operation and collaboration

- Creates strategies to influence others through persuasive reasoning
- Builds trust and confidence in others
- Tolerates ambiguity to promote creative solutions

An emerging pattern appears to be that behaviours linked to Interacting Authentically were reported more frequently than those linked to Acting Effectively or Conceptualising Issues. This would indicate that inter-personal behaviours, focusing on the quality of relationships between people in the system, were the most frequently-reported aspects of how NHS leaders bring about improvement (Interacting Authentically).

Task-related behaviours (Acts Effectively), represented by the pink data line, are generally less frequently reported in participants' descriptions of improving services than Interacting Authentically behaviours. With the exception of item h, (Tolerates ambiguity to promote creative solutions), all the behaviours within this Key Competence fall below the frequency of 30 in the study. Two items fall just below this frequency level: item a (Identifies project implications) at 28 and item b (Specifies roles, tasks and performance standards) at 26. These behaviours are both classically managerial behaviours which emphasise ensuring that sufficient and appropriate resources are deployed in order to get the job done. The frequency with which such behaviours are reported seems to suggest that NHS improvement leaders rely on these leadership competences but that they are less prominent in the overall pattern of leadership behaviour than the afore-mentioned relational behaviours.

Leadership competencies related to thinking and making sense of events (Conceptualising Issues) are not insignificant in the typical reported leadership pattern, but they are much less frequently reported as being central to leading improvement. With one exception, all behaviours in this category had a frequency of less than 15. The one item with a higher frequency of 23 was item f (Identifies the links between the wider system and its components).

The nature of the behaviours within the Conceptualising Issues dimension may to some extent explain why they were consistently reported with lower frequency than the other dimensions. Many of the behaviours within this dimension are cognitive and analytical in nature, related to making sense of the situation, seeking understanding and thinking critically about issues. Such behaviours are likely to be internalised, rather than manifesting themselves directly through externally observable actions. For example, in order to 'identify the links between the wider system and its components' (item f within this dimension), the leader is likely to talk to a range of people and have discussions about the improvement being undertaken in order to be able to analyse such links. When asking a participant about what they did as a leader, it is possible that they would focus on reporting the activities of discussing and seeking information (the externally manifested actions) rather than the internalised actions of using the information gathered from interaction to form judgements and views. Within the methodology adopted for this study, such an approach would lead to the behaviours being coded in interactive terms, leading to a higher frequency for items involving interaction, such as those in the Interacts Authentically dimension. This could be

overcome in future data collection by explicitly seeking data relating to respondents' thinking processes.

Notwithstanding this possible reason for 'Conceptualising Issues' behaviours featuring less prominently in the overall leadership pattern, the results from the semi-structured interviews relating to leadership behaviours do represent a clear pattern. The pattern indicates that relational, interactive competencies feature more prominently in the pattern of leadership behaviour than task-oriented or conceptual competences. These interactive behaviours are more frequently reported by NHS leaders than task-related or conceptual skills. In summary, the behavioural data derived from the semi-structured interviews appear to indicate that engagement and relationship-based behaviours are of fundamental importance in leading NHS improvement.

6.5.2 What NHS improvement leaders believe to be important behaviour

The Q-Sort rankings are graphically represented in Figure 26. When these 'mindset' data are compared with the behavioural data derived from the semi-structured interviews, a consistent pattern becomes apparent between the two datasets. Figure 27 shows the relative frequency and ranking of different leadership behaviours related to how participants say they 'enact' improvement leadership and their 'mindset' (i.e. what they think is important in leading improvement.)

It can be seen that what participants think is important for leading improvement and how they report behaving when leading improvements show a consistent pattern,

emphasising the importance of the Interacting Authentically behaviours. These results highlight the finding that engagement and relationship skills are of fundamental importance in leading improvement, as behaviours which feature more prominently in reported patterns of leadership than task-related or conceptual behaviours.

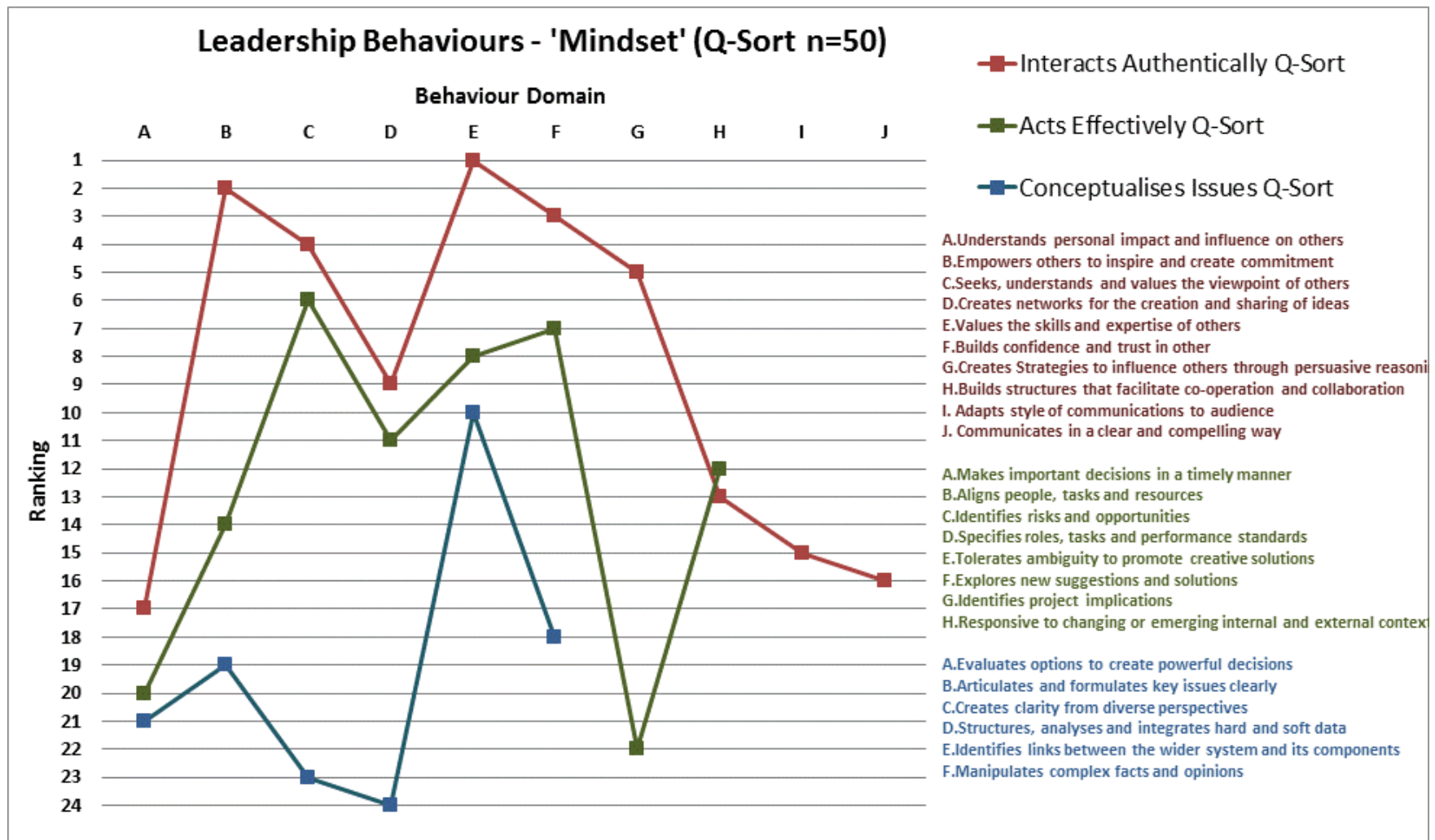


Figure 26. Ranked Q-Sort data

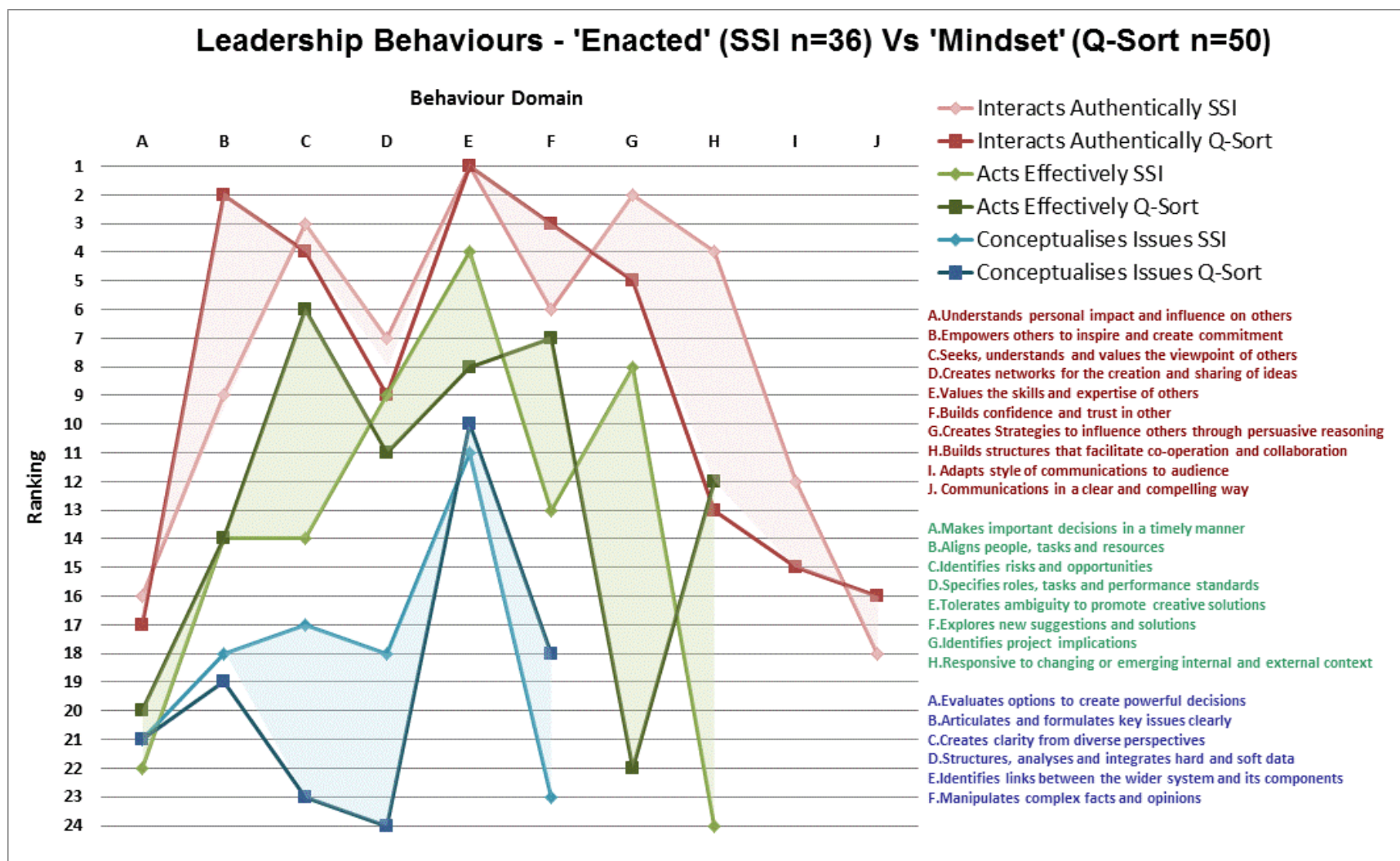


Figure 27. Comparison of reported leadership behaviours and those perceived as important in the Q-Sort

6.5.3 Different Mindsets of NHS Improvement Leaders

The three groupings representing different 'mindsets' or ways of thinking about leading improvement, are detailed below:

Mindset One : Engagement (n=8)

The key defining statements for this mindset are:

- 36 Explains the need for change and inspires commitment to the process*
- 1 Solicits all points of view and uses these perspectives to build consensus*
- 35 Listens carefully to others to gain a real insight into their issues and concerns*
- 33 Shows trust and confidence in staff by acknowledging their effort & contribution*
- 42 Creates meaning for the audience by using events and stories to illustrate key points*
- 43 Uses anecdotes and analogies to illustrate ideas and bring messages to life*

**Indicates significance at $p < 0.01$*

Respondents in this grouping prioritise the building and maintaining of positive relationships with staff and colleagues in order to engage, encourage, communicate and motivate. Key to this mindset is the belief that valuing others and embracing their views and skills is crucial to leading improvement work. This entails the improvement leader in committing time to listening, gathering views and perspectives and bringing an element of empathy to situations, through appreciating how others see things. Trust between colleagues is valued within this mindset, and imaginative communication is used to make key messages meaningful to others.

Mindset 2: Managed Performance (n=21)

The key defining statements for this mindset are:

63 Unites staff around an inspiring vision and aligns staff capacities with planned activities*

12 Identifies and nurtures talent to build capacity and capability*

60 Holds both self and others accountable for effective delivery of results*

11 Capitalises on the range of skills and talents present in the organisation

58 Conducts regular reviews and constructively addresses under-performance*

116 Takes a 'helicopter view' of the system to oversee both short and longer-term issues*

13 Offers support, rewards achievements and celebrates success*

14 Gives clear constructive feedback, timely praise and focused recognition*

59 Establishes structures that delineate authority with clear lines of accountability*

**Indicates significance at $p < 0.01$, otherwise $p < 0.05$.*

Respondents in this mindset grouping also prioritise behaviours relating to staff, in this case managing them by means of clear processes for ensuring performance and accountability. Staff are viewed primarily as a resource to be deployed in the most effective way possible to achieve improvements. Key to this mindset is the belief that the improvement leader puts in place structures and processes to ensure staff are used purposefully towards achieving improvement. Behaviours which balance current issues with future trends are valued by this grouping, and emphasis is placed on communicating to staff what the direction of travel is.

Mindset 3: Networked Innovation (n=6)

The key defining statements for this mindset are:

39 Presents as a role model of creativity, innovation and learning*

28 Uses influence and persuasive skills to involve, engage and gain others' support*

101 Thinks flexibly and creatively under rapidly evolving or unexpected circumstances*

76 Identifies and consults with the appropriate key decision makers on emerging issues*

18 Develops and sustains a diverse range of internal and external relationships*

71 Seeks out opportunities to try out new ideas or innovate schemes*

26 Constructs persuasive arguments to facilitate the acceptance and adoption of change*

**Indicates significance at $p < 0.01$*

Respondents in this grouping believe networking and innovating to be crucial to leading improvement. Central to this mindset is the belief that improvement is led by knowing what is happening elsewhere, having a finger on the pulse of latest ideas and being connected to those involved in novel approaches. Influencing others to think creatively about change, and grasping opportunities offered by unpredictable futures are also key behaviours within this grouping.

The three mindsets which are apparent from the Q-Sort data provide very different perspectives on what is most important for leading improvement. As indicated by the numbers falling into each mindset, the respondents whose way of thinking about leading improvement was significantly linked to a distinct mindset were spread as follows:

Mindset 1: Engagement 23%

Mindset 2: Managed Performance 60%

Mindset 3: Networked Innovation 17%

The mindsets provide insights into the different views held by NHS improvement leaders about how leadership is linked to improvement, and as such, will be discussed in more detail in Chapter 7.

6.6 The Relevance of Improvement ‘Type’ to Leading Improvement

As has been explained in previous sections, a key aspect of the study was to investigate whether the leadership behaviours used by NHS leaders varied according

to the type of improvement being undertaken. To this end, a correlation analysis was undertaken between two datasets. The first dataset was the frequency data from the semi-structured interviews, indicating how many times use of the 24 IQL Key Competences had been reported by each interviewee. The second dataset was the 'type' ratings attributed to each participant's quality improvement work, rated against the Healthcare Improvement Typology. The full dataset used for this correlation analysis is provided in Appendix 17.

The type of correlation analysis used was Pearson's product moment correlation (SPSS v15). The significance tests were one-tailed, in order to test the expectation that the associations would be positive. The aim of this analysis was to ascertain whether any links were evident between the complexity of the quality improvement work undertaken (categorised against the Healthcare Improvement Typology) and the leadership behaviours reported to effect this improvement.

The improvement 'type' was analysed from two main perspectives. The first was to take the whole improvement 'type' rating (eg 2344) and to treat it as an overall indicator of complexity for the improvement work. This involved addition of the 4 integers within the type, in this example, giving a complexity rating of $2+3+4+4 = 13$. This combined complexity rating was then the basis for correlation with the leadership behaviour frequency data. This is the only purpose for which the four integers within the rating were combined to create an overall rating, and was specifically to allow this correlational analysis to be undertaken.

A second correlation analysis was undertaken, which separated out the four components of the improvement type rating (Level, Focus, Process and Intended Impact), rather than dealing with them as an overall combined rating. Hence, correlation indices were obtained, which indicated the extent of any relationship between each of these four dimensions within the Healthcare Improvement Typology and the associated reported leadership behaviours.

The results suggest that as the overall complexity of quality improvement work increases (indicated by the type rating combining all dimensions), certain aspects of leadership are more frequently reported, as shown in Figure 28. The more complex the quality improvement work (as defined by the Healthcare Improvement Typology), the more these 8 key leadership behaviours are reported by those leading the improvement work in the NHS.

Competency Area 1	Interacts Authentically	*
Key Competence: 1a	Seeks, understands and values the viewpoint of others	10%
Key Competence: 1b	Understands personal impact and influence on others	*
Key Competence: 1c	Values the skills and expertise of others	10%
Key Competence: 1e	Builds structures that facilitate co-operation and collaboration	10%
Competency Area 2	Acts Effectively	*
Key Competence 2a	Identifies project implications	*
Key Competence 2c	Aligns people, tasks and resources	*
Key Competence 2e	Identifies risks and opportunities	*
Competency Area 3	Conceptualises Issues	*
Key Competence 3d	Creates clarity from diverse perspectives	*

* = significance $p < 0.05$ 10% = significance $p < 0.10$

Figure 28. IQL Key Competences used more frequently as overall complexity of improvement increases

An important finding emerging from these results is that each of the three Competency Areas from the IQL[®] (Interacting Authentically, Acting Effectively and

Conceptualising Issues) has a significant, positive relationship with the Healthcare Improvement Typology. In other words, the greater the complexity of a piece of improvement work as measured by the instrument, the more frequently the behaviours within these competency areas are reported by leaders in the NHS. This is of particular note given the relatively small dataset, and suggests that the Healthcare Improvement Typology developed for this study is a robust metric. With a dataset of this size, the extent of significant relationships shown by the correlation analysis indicates that the links between the complexity of improvement work and their associated leadership behaviour patterns are noteworthy.

In analysing the correlation matrix of relationships between leadership behaviours and the Healthcare Improvement Type ratings, p value significance levels from 0.01, 0.05 to 0.10 have been reported. This decision to include all these significance levels was taken because the data is in a consistent direction and there are very small absolute differences in the actual correlations observed. These levels of significance are in themselves remarkable given the relatively small sample size.

There is indeed a widespread view that significance testing for correlational data is always potentially misleading since, as Hicks (2009) states, the size of the sample is a major influence upon the significant data obtained. For example, very large samples will often report significant results at correlations of 0.20 but the same result will almost certainly not be significant with a smaller sample. Rather, it is proposed that the pattern and absolute size of correlations should be examined without the use of significance testing at all.

This is sometimes referred to as “effect size” and Cohen (1988) suggests exactly this approach. He suggests a simple rule of thumb as follows:

0.1 - 0.29	Small correlation
0.3 - 0.49	Medium correlation
0.5 – 1.0	Large correlation

In the data for this study, both approaches have been applied, so for example: a correlation of 0.28 is significant at the $p < 0.05$ level, yet a correlation of 0.27 is significant at the $p < 0.10$ level. It is the author’s view that the consistent direction and very marginal difference between such correlation figures for a small sample justify reporting an extended significance level.

Given the limited size and source of the dataset, it would be inappropriate to make generalised statements about the links between improvement type and leadership behaviour. However, taking into account the fact that these data emerged from a sample of THF participants, certain pertinent points seem evident.

As quality improvement work became more complex, NHS leaders increasingly relied on on certain inter-personal and relational behaviours to bring about the changes involved. This behaviour-set includes self-knowledge and empathy; appreciating others’ perspectives; placing central importance on the skills and contributions of others; and encouraging processes which encourage and enable others to cooperate and collaborate in the improvement work.

These engagement behaviours were supported by a core set of behaviours to ‘get things done’, which may be described as more ‘task-focused’ actions. As improvement

work became more complex, NHS leaders more frequently reported that they were considering the detail of executing the changes; working out the likely implications of the improvements; calculating what was required to introduce the improvements and how this would be done. In addition to this 'here and now' focus, as improvement work became more complex, there was a reported increase in forward-thinking behaviours, maintaining an alertness to changing circumstances and opportunities for further improvement.

With increasingly complex improvement initiatives, certain 'sense-making' leadership behaviours were reported as being more frequently used. Typically, these were behaviours seeking meaning from diverse and complex information, views and perspectives.

6.6.1 Focus and Level of the Improvement

The next level of inquiry into improvement type sought to analyse the factors contributing to the overall complexity of the improvement, and to see if these were related to the leadership behaviours used. A reminder of these factors is provided here:

Focus	the size of the group of people affected and the scope of their clinical needs;
Level	whether the improvement is local, intra-organisational, across organisations, regional, national or international;
Process	whether the improvement is adaptive or innovative; the range of stakeholders to be influenced, and the perceived difficulty of the influencing process.
Intended Impact	the extent to which the improvement had the intended impact on the health, wellbeing and experience of service users, and its apparent sustainability.

This section considers the Focus and Level dimensions. A working ‘common sense’ hypothesis might have been that as quality improvement work becomes more complex, encompassing a wider focus and being led from a higher organisational level, the behaviours used for leading the improvements would be different from those used at a more local level and with a narrower focus.

On the contrary, the data from this study suggest that most leadership behaviours used by THF participants were unrelated to the level or focus of the improvement work being undertaken. In other words, the focus and level of improvement work did not appear to significantly affect the typical pattern of leadership behaviour used. The data analysis supporting this finding is shown in Figures 29 and 30 below. They show the extent to which there was any significant relationship between the relative Level or Focus of an improvement and the leadership used to effect it.

Competency Area 1	Interacts Authentically	
Key Competence 1a	Seeks, understands and values the viewpoint of others	*
Key Competence 1e	Builds structures that facilitate co-operation and collaboration	10%

Competency Area 2	Acts Effectively	
Key Competence 2a	Identifies project implications	10%
Key Competence 2e	Identifies risks and opportunities	10%

Figure 29. Key Competences which correlate with differing organisational level

Competency Area 1	Interacts Authentically	
Key Competence 1f	Creates Strategies to influence others through persuasive reasoning	negative 10%
Competency Area 3	Conceptualises Issues	
Key Competence 3a	Articulates and formulates key issues clearly	negative *
Key Competence 3c	Evaluates options to create powerful decisions	negative 10%

* : significance $p < 0.05$ 10% : significance $p < 0.10$ shaded : no significance

Figure 30. Key Competences which correlate with different breadth of project focus

There was no statistical relationship between the 3 IQL[®] Competency Areas of Interacting Authentically, Acting Effectively or Conceptualising Issues for either the Level or the Focus dimension of the Healthcare Improvement Typology. This indicates that differences in the level and focus of an improvement do not seem to be associated with the use of particular leadership behaviour patterns. When considering the 24 Key Competences, a small number of relationships are evident from the data, and whilst they do not present a consistent or meaningful pattern, they are considered below.

The four leadership behaviours identified in Figure 29 are more frequently used with higher level improvement work. However, these four are also associated with more complex improvement work overall (Figure 28), suggesting that there are no uniquely defined behaviours associated with improvement being effected at a local level, lower down in a hierarchy, or more strategic improvements higher up. This reinforces the important

message apparent from the data that the organisational level at which an improvement takes place is not associated with particular patterns of leadership behaviour.

The 'Focus' dimension is the only factor in the Healthcare Improvement Typology that correlates negatively with certain leadership behaviours, as shown in Figure 30. These negatively significant relationships are intriguing in both their origin and meaning. It is possible that the data are revealing certain associations, for example: the broader the focus of an improvement becomes, the less a leader is likely to persuade others (1f), clarify key issues (3a) and weigh up critical factors affecting decision-making (3c). Such an interpretation of the data might suggest that the detailed work involved in persuading, problem-solving and evaluating options is largely operational, and therefore less prominent among people leading wide-ranging improvements.

However, this explanation seems rather implausible and the lack of coherent meaning emerging from the data on the 'Focus' dimension serves to throw into question the usefulness of the dimension. As the significant correlations for this dimension are of a very small number, it would seem that it would need to be tested on a larger and wider sample in order to ascertain its significance.

6.6.2 Process of the Improvement

The third dimension of the Healthcare Improvement Typology was called Process, and comprised the adaptive or innovative nature of the improvement and the range and attitudes of stakeholders involved. In considering how this dimension is associated with leading improvement, some interesting and significant findings emerge, as

illustrated in Figure 31. As improvements become increasingly innovative, involving more complex influencing, it appears that:

- NHS leaders increasingly combine inter-personal and task-focused skills in their leadership approach;
- Leaders typically report more frequent use of persuasive reasoning, building relationships of trust and confidence and adapting their communication styles to suit different audiences;
- Leaders increasingly depend on management skills such as resource allocation and decision-making, while remaining open-minded to new ways of solving problems;
- Conceptual skills do not feature significantly in reported leadership patterns.

The results suggest that more innovative improvement work, involving more complex influencing, is associated with combining operational management with longer term relationship-building, while keeping an opportunistic eye on the possibilities for the future.

Competency Area 1	Interacts Authentically	**
Key Competence: 1b	Understands personal impact and influence on others	10%
Key Competence: 1c	Values the skills and expertise of others	*
Key Competence: 1e	Builds structures that facilitate co-operation and collaboration	10%
Key Competence: 1f	Creates Strategies to influence others through persuasive reasoning	10%
Key Competence: 1g	Builds confidence and trust in other	*
Key Competence: 1j	Adapts style of communications to audience	**
Competency Area 2	Acts Effectively	**
Key Competence: 2a	Identifies project implications	10%
Key Competence: 2c	Aligns people, tasks and resources	*
Key Competence: 2e	Identifies risks and opportunities	**
Key Competence: 2f	Makes important decisions in a timely manner	*
Key Competence: 2g	Explores new suggestions and solutions	10%

** : significance $p < 0.01$ * : significance $p < 0.05$ 10% : significance $p < 0.10$ shaded : no significance

Figure 31. Behaviours associated with more innovative improvement initiatives and complex stakeholder issues

6.6.3 Intended Impact of the Improvement

The final dimension of the Healthcare Improvement Typology was called Intended Impact, and measured the extent to which intended impact was achieved in terms of patient experience, clinical outcomes and sustainability. Leadership behaviours associated with achieving greater impact in these areas are shown in Figure 32.

Competency Area 1	Interacts Authentically	*
Key Competence: 1a	Seeks, understands and values the viewpoint of others	10%
Key Competence: 1b	Understands personal impact and influence on others	*
Key Competence: 1c	Values the skills and expertise of others	10%
Key Competence: 1e	Builds structures that facilitate co-operation and collaboration	10%
Competency Area 2	Acts Effectively	
Key Competence 2a	Identifies project implications	*
Key Competence 2c	Aligns people, tasks and resources	10%
Key Competence 2d	Responsive to changing or emerging internal and external context	*
Key Competence 2e	Identifies risks and opportunities	10%
Competency Area 3	Conceptualises Issues	*
Key Competence 3c	Manipulates complex facts and opinions	*
Key Competence 3d	Creates clarity from diverse perspectives	**

** : significance $p < 0.01$ * : significance $p < 0.05$ 10% : significance $p < 0.10$ shaded : no significance

Figure 32. Key competences associated with achieving greater impact

Two leadership behaviours, in particular, are uniquely associated with Intended Impact (ie they do not show associations with the other 3 dimensions of the Healthcare Improvement Typology). Firstly, it appears that responsive, nimble leadership which anticipates change and is ready to adapt to altering circumstances is positively associated with sustainable improvement and tangible impact (key competence 2d). Secondly, improvement work which achieves its intended impact is related to a leader's behaviours in making sense of ambiguity in an unpredictable context (key competence 3d).

In summary, the results from the analysis of the Healthcare Improvement Typology demonstrate that certain leadership behaviours appear differentially important depending on the complexity of improvement work being undertaken. Overall, it is noteworthy that as an instrument, the Healthcare Improvement Typology effectively differentiates between different types of healthcare improvement, and has the capacity to classify a very broad range of improvement work. The extensive work undertaken within this study to devise and apply the typology has established that pieces of work referred to under the catch-all term 'improvement' do differ considerably in their nature and complexity. Moreover, these distinct types of improvement work appear to be associated with different leadership behaviour patterns. It could be argued that this reinforces the Healthcare Improvement Typology as a stable metric, with potential utility in scoping and planning improvement work.

6.7 Summary of Results

The two core research aims being pursued through this study were:

- To develop an approach to measuring and classifying different 'types' of improvement work;
- To identify leadership behaviours associated with service improvement in the NHS.

This chapter has provided a detailed description of the data analysis, and has presented the emerging results of the study. As summarised at the outset of the chapter, several different datasets have been produced by the study, all of which

relate in different ways to the core research aims. For summary purposes, the key findings of the study are listed below.

- 1** Seven leadership behaviours were most frequently reported by NHS improvement leaders. Six of these were inter-personal behaviours (from the Interacting Authentically dimension of the IQL), focusing on the relationship between the leader and other people in the system. The other highly-reported behaviour was tolerating ambiguity and uncertainty.
- 2** Relational behaviours were reported more frequently overall than task-related behaviours or conceptualising behaviours.
- 3** NHS improvement leaders ranked the 5 most important leadership behaviours in improvement work as valuing others' skills; empowering others; trusting others; appreciating others' viewpoints and influencing others; these are all from the Interacting Authentically dimension of the IQL.
- 4** The Q-Sort revealed 3 distinct mindsets among NHS leaders in relation to the behaviours they view as important to improvement work. The first mindset, 'Engagement', was based on a belief that engaging staff was the most crucial leadership behaviour. The second mindset, 'Managed Performance' gave prime importance to ensuring accountability and performance. The third mindset, 'Networked Innovation' was based on a belief that influencing through connecting people to new ideas was most important for leading improvement.

- 5 The Healthcare Improvement Typology was shown to be a robust instrument for distinguishing between improvements that were differentially complex across a range of dimensions.
- 6 Certain types of improvement work were positively associated with certain leadership behaviours. The more complex the improvement work overall, the more NHS leaders reported a combination of combining key inter-personal behaviours and certain task-focused behaviours.
- 7 The focus and level of improvement work did not appear to significantly affect the typical pattern of leadership behaviour used to bring about improvement.
- 8 Two leadership behaviours appeared to be uniquely associated with the Intended Impact of improvement work. Those leaders reporting high frequency behaviour in these areas were involved with improvements which appeared to be more sustainable over time. These two behaviours were: being adaptive to altering circumstances and making sense of ambiguity in an unpredictable context.

The final chapter, which follows, presents a discussion of the results of the study.

CHAPTER 7 DISCUSSION

7.1 Introduction

This chapter draws together the various strands of the study by exploring the results, considering their possible meanings and discussing how they contribute to relevant fields of research and practice.

Firstly, in Section 7.2, the results of each aspect of the study will be separately discussed in detail. Secondly, in Section 7.3, the discussion will review the theoretical framework for the study, considering what the study has contributed to the theories and models of leadership and improvement. This section will return to the conclusions drawn from the literature review to assess how the study has contributed to the identified evidence gaps. Sections 7.4 and 7.5 then take a wider view of how the study fits within general trends in the literature. This discussion raises something of a conundrum in understanding leadership for healthcare improvement and explores possible interpretations of this, before in Section 7.6 moving to a suggested way of conceptualising the issues.

The chapter then moves on to undertake a critique of the study in Section 7.7, particularly highlighting some of the limitations in its conceptual framework and its methodology. Section 7.8 provides a discussion specifically addressing further possible work in understanding improvement type, and Section 7.9 then adopts a broader view of future areas for potential research. Section 7.10 provides a brief consideration of

the future for leadership in healthcare improvement, taking into account the overall context for the UK NHS at the end of 2011, with concluding remarks in Section 7.11.

7.2 Discussion of Study Results

Based on the results presented in Chapter 6, this section highlights how the key results from the different aspects of the study, contribute to the evidence and knowledge base about leading NHS improvement.

7.2.1 The Importance of Interacting Authentically

As outlined in Chapter 6, seven leadership behaviours were most frequently reported by NHS leaders undertaking improvement work. Six of these were inter-personal behaviours (from the Interacting Authentically dimension of the IQL), focusing on the relationship between the leader and other people in the system:

- Seeks, understands and values the viewpoint of others (1a)
- Values the skills and expertise of others (1c)
- Creates networks for the creation and sharing of ideas (1d)
- Builds structures that facilitate co-operation and collaboration (1e)
- Creates strategies to influence others through persuasive reasoning (1f)
- Builds trust and confidence in others (1g)

Overall, relational behaviours were reported more frequently during the semi-structured interviews than task-related behaviours or conceptualising behaviours.

When ranking the importance of leadership behaviours for improvement work using the Q-Sort methodology, the 5 most highly-ranked behaviours were all from the Interacting Authentically dimension of the IQL.

- 1 Values the skills and expertise of others (1c)
- 2 Empowers others to inspire and create commitment (1h)
- 3 Builds confidence and trust in others (1g)
- 4 Seeks, understands and values the viewpoint of others (1a)
- 5 Creates strategies to influence others through persuasive reasoning (1f)

When considered together, these results characterise a leadership approach where the leader as an individual plays a key role in enabling others in the system to contribute their views, expertise and ideas. The data suggest that this is done not only on a 1-1 basis, but by fostering networks and processes whereby people in the system can connect freely and openly, both formally and informally, on issues relating to improvement.

Such a characterisation resonates clearly with the trends in the literature away from 'leader as individual' towards a more collective leadership concept. Several such concepts are evident in the leadership literature, albeit in a relatively embryonic form. (Church 1995; Lakshman 2006; Bradley & Alimo-Metcalf 2008). Reference to these is made in Section 3.5.4, introducing the concept of 'inclusiveness' in leadership. Encompassing aspects of collective, distributed and shared leadership, the concept resonates clearly with earlier transformational models of leadership (e.g. Bennis (2000), Kouzes & Posner (1998)), and emphasises the importance of 'others' as at least

equal to, and arguably greater than, that of the individual leader. This signifies a tacit but potentially crucial shift in where leadership for improvement is deemed to lie (i.e. spread across a diverse range of people rather than in a few elite individuals). The study provides a small but convincing case that enabling and facilitating others to make their contribution is central to leading improvement in the NHS.

It would seem that THF Award Holders typically tend to enact their leadership as enablers and facilitators of improvement. This finding may, of course, be related to the fact that most participants were working at middle levels of organisations. A small minority of participants in this study were at Executive level, but most reported in to Executive level, or the next level down in the organisational structure. It is possible that leader-centric, figurehead behaviours may be more prominent among more senior leaders. Nevertheless, the data indicate a clear pattern among middle-level improvement leaders as one where their key role is to enable and support those around them to pursue and effect improvement.

7.2.2 Preparedness rather than Planning

Overall, the results indicate that leadership behaviours focusing on managing tasks and project implementation (Acting Effectively) feature less frequently among NHS staff leading improvement than relational, inter-personal behaviours. The exception to this is the key competence 'Tolerates ambiguity to promote effective solutions', which is reported as a much more commonly-used behaviour than any of the other key competences in the 'Acting Effectively' competence area.

The behavioural definition of this key competence includes continually striving to find better ways of doing things, considering new possibilities, striving for improvements and keeping expectations high, even when things are difficult or when the situation is not completely clear. Why might this aspect of 'Acting Effectively' stand out so much more prominently among NHS improvement leaders than other task-related behaviours?

Where 'Tolerating ambiguity to promote creative solutions' differs from the task-focused behaviours listed above is that it arguably has more to do with attitude than action. This key competence is about having a 'mindset' which is focused on continuous improvement rather than the status quo, continual striving for excellence, an ongoing quest to overcome obstacles to better services and a tenacity to pursue improvement even in difficult, uncertain or ambiguous situations. It is not the only attitudinal aspect of the 'Acting Effectively' competence area, but it certainly seems to be the one that leaders most often cite as being central to their improvement work.

This finding has interesting links to debates in the leadership literature about the importance of attitude to improvement. Lucas & Buckley (2009) concluded from a recent study at Alder Hey Hospital that,

'We believe that improvement is fundamentally an attitude of mind and one that formal and ordinary leaders will increasingly need to adopt if improvements in health care are to be sustainable.' (p. 45)

This study provides further support for Lucas and Buckley's assertion. An attitude which tolerates the uncertainty of improvement, and strives for it nevertheless, was

reported as one of the key aspects of improvement leadership among the participants. In terms of Acting Effectively, this behaviour emerges from the results more prominently than any other task-focused behaviour, and it would seem that healthcare NHS improvement is less to do with planning in a task-driven way, and more associated with being prepared for change, attitudinally and behaviourally.

7.2.3 Conceptualising Issues: A Backbone underpinning Improvement Leadership?

The data show that 'conceptual', thinking-based behaviours are typically used at a low frequency level as part of improving services, and are much less prominent in the reported pattern than the task-related or interpersonal behaviours. They could be viewed as providing a 'backbone' underpinning the action and the interaction which bring about improvement.

There are methodological issues which may shed some light on this finding. For instance, many of the key competences outlined within this aspect of the IQL are cognitive processes which inform behaviour, rather than external manifestations of the behaviour itself. Somebody sitting at a desk, thinking, or working at the computer are possible outward manifestations of 'conceptualising issues', making sense of improvement work and the context for it. However, because the impact of these types of behaviours are less immediate and obvious than when somebody is directly acting or interacting, perhaps these behaviours are less valued, organisationally, and hence less reported by participants.

In addition, it could be argued that these types of behaviours are possibly performed on a more individual basis, rather than in conjunction with or in relation to other people.

Notwithstanding these possible interpretations, it is important to remember that the semi-structured interview data represent the participants' own descriptions of what they did to make improvement happen. Each participant voluntarily chose what to say to describe how they led quality improvement, and the data show that across the whole sample, it was the outwardly-manifested behaviours which were reported much more frequently than the inward-focused thinking behaviours.

At face value, this is a clear indication that leadership actions and interactions are perceived by participants as being more significant to their improvement activities than thinking and cognitive processes. If the semi-structured interview had lasted 3 hours instead of 1.5 hours, it is possible that participants would have moved on to describe the more conceptual behaviours in their account of enacting improvement. However, even if this were the case, it would not alter the fact that it is typically the relational aspects of leadership which are the first ones to be mentioned by improvement leaders as key. The conceptual aspects of leading improvement appear to be secondary among the THF award holder sample.

7.2.4 Mindsets for Leading Improvement

To contrast with the actual behaviours reported by NHS improvement leaders, the study gathered data about what these leaders view as important leadership

behaviours for improvement work. As a recap, the three mindsets emerging from the analysis of this Q-Sort data were:

Mindset One : Engagement

Respondents in this grouping prioritised the building and maintaining of positive relationships with staff and colleagues in order to engage, encourage, communicate and motivate. Key to this mindset is the belief that valuing others and embracing their views and skills is crucial to leading improvement work. This entails the improvement leader in committing time to listening, gathering views and perspectives and bringing an element of empathy to situations, through appreciating how others see things. Trust between colleagues is valued within this mindset, and imaginative communication is used to make key messages meaningful to others.

Mindset 2: Managed Performance

Respondents in this mindset grouping also prioritised behaviours relating to staff, in this case managing them by means of clear processes for ensuring performance and accountability. Staff are viewed primarily as a resource to be deployed in the most effective way possible to achieve improvements. Key to this mindset is the belief that the improvement leader puts in place structures and processes to ensure staff are used purposefully towards achieving improvement. Behaviours which balance current issues with future trends are valued by this grouping, and emphasis is placed on communicating to staff what the direction of travel is.

Mindset 3: Networked Innovation

Respondents in this grouping believe networking and innovating to be crucial to leading improvement. Central to this mindset is the belief that improvement is led by knowing what is happening elsewhere, having a finger on the pulse of latest ideas and being connected to those involved in novel approaches. Influencing others to think creatively about change, and grasping opportunities offered by unpredictable futures are also key behaviours within this grouping.

The three mindsets which are apparent from the Q-Sort data provide very different perspectives on what is most important for leading improvement. They provide insights into the different views held by NHS improvement leaders about how leadership is linked to improvement. As outlined in Section 6.5.3, the spread of respondents across the mindsets was as follows:

Mindset 1: Engagement 23%

Mindset 2: Managed Performance 60%

Mindset 3: Networked Innovation 17%

It is crucial to bear in mind that the behavioural data, derived from the semi-structured interviews, came from an almost completely different sample of NHS leaders from the sample providing the Q-Sort mindset data. Whilst both sets of respondents were THF Award Holders on various leadership schemes, only two people responded to both the semi-structured interviews and the Q-Sort methodology. Comparisons between the two datasets must therefore take this into account.

The Q-Sort mindset data indicate that the most commonly espoused approach to leading improvement is one characterised by a Managed Performance mindset. As described above, this mindset emphasises transactional behaviours, focusing on structures and processes to ensure staff are purposefully deployed and directed towards achieving improvement. In contrast, the most commonly reported behavioural data are those relating to Interacting Authentically, many of which chime with the Engagement Q-Sort mindset. Taking into account the different samples providing the respective data, it seems that the NHS leaders reporting their behaviours focused more on the engagement and relational behaviours as key to leading improvement, whereas when asked what they believe to be most important, the majority of NHS leaders highlighted managerial and performance management behaviours.

It may be that this difference is purely a function of the largely separate and distinct respondent samples taking part in the different data-gathering methods. However, as all respondents to both the semi-structured interviews and the Q-Sort were drawn from the same overall pool of THF Award Holders, the marked difference between espoused and enacted behaviours seems somewhat surprising.

There is also a discrepancy between what the Q-Sort mindset data suggest and what the Q-Sort rankings (shown in Figure 24) indicate. As described here, the mindset data show a majority of Q-Sort respondents falling into the Managed Performance grouping. This is in contrast to the result when the Q-Sort data were ranked, which indicated that the top 5 ranked behaviours were Interacting Authentically behaviours, which would be more aligned with the Engagement mindset.

In considering the results relating to the Q-Sort, it is pertinent to remember that the mindsets were formed from only 35 of the 50 total respondents, as 15 of the respondents' datasets did not significantly map onto any of the three identified mindset groupings. The discrepancy between the ranking of the Q-Sort data and the spread across the mindsets is likely to be due to these 15, which are essentially unrepresented in the mindset data. In order to explore the mindset data further, it would be necessary to discuss with the respondents why they think in the way they do about leading improvement, which would involve an intervention or research method beyond the scope of this study.

7.2.5 The Significance of Improvement 'Type'

At the outset of this study, it was unknown whether the complexity of an improvement initiative had any relevance to the type of leadership used to enact it. The results of the study indicate that complexity is indeed a relevant factor, with greater complexity reportedly leading to greater use of certain aspects of leadership. The study has demonstrated that some leadership behaviours appear to be differentially important depending on the type of improvement work being undertaken.

With the small dataset involved, the key discussion point here is not really about which behaviours emerged and why. Further data would need to be gathered to build a richer understanding of this, and this is discussed further in Section 7.8. The key point is that an association was found, establishing a link between improvement type and leadership behaviours used, where no link had previously been established. This provides the basis for further research, which would help to clarify the exact nature of such an association.

7.3 Evidence of Links between Leadership and Improvement

The theoretical framework for the study was described in Chapter 2, which considered key theories and models from the leadership literature, and examined how these may be of relevance to the thesis. A similar analysis was then presented with respect to the improvement literature, summarising the extent to which links could be seen between improvement theory and leadership theory. The clear and significant gap identified from the leadership and improvement literature in terms of how the two concepts relate to each other, was the central focus of this study.

In this section, the evidence base and literature are reviewed in the light of the research in this thesis. The aim is to tease out aspects of this study which might add to the evidence base about how leadership and improvement are linked. The following two sections consider the leadership literature and the improvement literature in turn; in both cases, the conclusions from Chapter 2 are used as a starting point for discussing the contribution of this study to the existing evidence base.

7.3.1 Contribution to Leadership Theory

Overall, the range of theoretical leadership models reviewed in Chapter 2 provided little specific insight into the practice of leadership specifically for improvement. However, it became apparent that some aspects of several leadership models may have relevance to leading NHS improvement and to this thesis. Key questions in relation to each leadership concept were highlighted in Chapter 2, Table 2. These are revisited in Table 7 below, to provide the context for this part of the discussion.

Table 7. Questions arising from leadership theories and models

Leadership Model	Relevance to exploring links between NHS leadership and improvement
Trait Theory Innate personality factors mean that leaders are born, not made. 'Great Man' and 'Hero' leadership.	Focus on the individual leader. Is personality a factor in leading effective NHS improvement?
Skills Approach Focus on the capabilities of leaders : categorised into technical, human and conceptual skills. Leadership outcomes are related to leader capabilities	Technical, human and conceptual skills areas are still evident in current leadership frameworks. What links are there between the skills and capabilities of NHS leaders and improvement?
Style Theory Focus on what leaders do. Relationship-centred and task-centred styles (democratic and autocratic)	Are different leadership styles evident amongst NHS improvement leaders?
Situational Theory The leader changes style to suit the competence and commitment of subordinates.	How might the differing nature of employees involved in NHS improvement affect the leadership required?
Contingency Theory The leader changes style depending on the member relations, task structure and positional power held.	Are different leadership styles appropriate for different types of improvement work?
Path-Goal Theory The leader adapts their style to optimise the motivation of their subordinate.	To what extent is the motivation of staff, and appropriate leadership styles to support this, a key factor in leading NHS improvement?
Leader-Member Exchange (LMX) Theory Centres on the quality of the relationship between leader and follower	Is the quality of relationships between staff and leaders of particular significance to leading NHS service improvement?
Transactional & Transformational Leadership Transactional leader maintaining order and control ; transformational leader as an inspirational change agent	What are the respective contributions of transactional and transformational leadership in achieving NHS service improvement?
Servant & Ethical Leadership Providing a service to others; caring for and nurturing followers, underpinned by social responsibility	Are either of these models evident in leading NHS improvement?
Shared Leadership Includes dispersed; distributed; and transmission concepts. Leadership at many levels and can be shared between people.	How might shared leadership be linked to NHS improvement?

Leadership Model	Relevance to exploring links between NHS leadership and improvement
Leadership for Complexity Including adaptive and integrative leadership; intended to address 'wicked' issues, typically through partnership; acknowledgement that there is no clear answer; ill-defined in behavioural terms	What, if any, role do these models play in leading NHS service improvement?

No single leadership model from the literature seemed sufficiently comprehensive to offer an overall theoretical framework for this study. Several leadership models appeared to be of little immediate relevance to the study and these are outlined below. Following this, it is pertinent to review the apparently more relevant leadership concepts as a context for the study's results.

In particular, it was noted that the concept of contingency leadership has potential parallels with the hypothesis contained within this thesis that different leadership might be required for different types of improvement work.

In addition, both the style and skills approaches to conceptualising leadership, with their emphasis on what leaders do, would appear to reflect the behavioural focus of this study, and may therefore provide an interesting framework for analysing the study findings.

Given the contemporary nature of concepts such as shared leadership and leadership for complexity, these ideas also appeared to be particularly current as a frame of reference for present-day leadership research findings.

The first leadership concept reviewed in Chapter 2 was that of trait leadership, with its emphasis on the characteristics of individual leaders. The question arising in relation to

this model was whether personality is a factor in leading effective NHS improvement. The personality and character of study participants were not assessed or measured as part of this study, and therefore trait leadership would appear to be of little immediate relevance to either the methodology or the results. However, it is important to stress that the whole study was predicated on an individualistic model of leadership, assumed by the client, The Health Foundation, and therefore central to the research methodology. Further consideration will be given to this underlying assumption, and its relative merits in terms of researching and leading healthcare improvement, in Section 7.7.1.

The situational model of leadership, with its emphasis on adapting leadership style according to the commitment and competence of subordinates, was very limited in its applicability to this study. The question raised by the earlier review of this model was 'How might the differing nature of employees involved in NHS improvement affect the leadership required?' (see Table 7). It is clear from the methodology that this study did not aim to answer this question. Firstly, the study design did not incorporate any exploration of subordinates and their nature or attributes (ie in relation to employee commitment and competence). Secondly, the methodology did not attempt to identify the leadership styles (directing, coaching, supporting and delegating), which underpin the situational model. For these reasons, the study was unlikely to yield any results providing further insights into situational leadership models.

Another leadership concept with little obvious relevance to this study was that of Path-Goal Theory. As described in Section 2.2.7, the premise of this theory is that the leader adapts their style to optimise the motivation of their various subordinates. The

exploration of the model's relevance to this thesis raised the question 'To what extent is the motivation of staff and appropriate leadership styles to support this, a key factor in leading NHS improvement?' An exploration of subordinate motivation, or indeed any other factors relating to subordinates, was not included in this study, rendering this leadership model largely irrelevant. However, in peripheral terms, there are interesting links identified in the literature (eg Hogan et al 1990; Firth-Cozens & Mowbray 2001) which indicate that the effective leadership of a team has significant influence on the team members, including lower stress levels, which have been shown to be associated with better patient care. Although tangential in relation to this study, this link suggests that in broader terms, there may be potential in further investigating how Path-Goal theory could be used as a frame for future studies into leading improvement, with employee motivation as a central focus of investigation.

The emphasis on employees is also evident in the Leader-Member Exchange (LMX) theory, which is another model with arguably limited relevance to this study. By means of reminder, this model centres on the quality of the relationship between leader and follower. Somewhat controversially, it is linked with the notion of an 'in-crowd' and an 'out-crowd' in organisational terms. The question raised in Chapter 2 about the relevance of this model was the extent to which the quality of relationships between staff and leaders is significant to leading NHS service improvement (see Table 7). This question would appear to be highly relevant to understanding more about how the dynamics between people in organisations (particularly in the dyadic relationships between leader and follower) can affect improvement leadership. Despite the intriguing nature of this question, with its sociological slant, it was not a focus of this

study, meaning that the LMX model seems largely superfluous to the purposes of this individually-based research. That said, building effective relationships when leading improvement did appear to be relevant in the results of the study, insofar as the most frequently reported behaviours among improvement leaders were interpersonal behaviours. Thus, while the LMX model itself is not of direct relevance, the theme of leadership relationships underpinning the model warrants further scrutiny and will be discussed in more detail later in section 7.5.

Moving to transactional and transformational models in the leadership literature, both are deemed to be necessary in organisations. In relation to the study results, are both also necessary for leading NHS improvement? A robust interrogation of this issue would require a study designed around transformational and transactional leadership frameworks. The IQL dimensions of Interacting Authentically, Acting Effectively and Conceptualising Issues do not clearly map onto the concepts of transformational or transactional leadership. In the simplest terms, the Acting Effectively behaviours could arguably be considered most akin to the transactional leadership approach, with its emphasis on the planning and implementation of the work. Conversely, the Interacting Authentically behaviours could be considered more similar to the transformational approach, placing high levels of trust and value in others, with an emphasis on involving and engaging other people. On the basis of this over-simplified comparison, the results of this study would suggest that transformational leadership takes precedence in leading NHS improvement, supported by transactional behaviours. In response to the question posed in Table 7, 'What are the respective contributions of

transactional and transformational leadership in achieving NHS service improvement?’ such specific detail does not emerge from this study.

The final leadership concept with marginal immediate applicability to this study is that of servant and ethical leadership (although distinct concepts, these are combined into one for pragmatic reasons due to their similarities and the currently tenuous evidence base for both in relation to improvement). The most pertinent question relating to this concept is ‘Are either of these models evident in leading NHS improvement?’ To robustly respond to this question, the study would have needed to much more explicitly identify servant and ethical dimensions of leadership in order that they could be readily measured alongside other dimensions. Given that this model was not a central focus for the study, the design clearly did not lend itself to addressing the question directly.

However, one particular issue is worthy of note as a point of reference with regard to servant and ethical leadership. What distinguishes this model of leadership from the others is the humility of the leader, whereby his or her own self-perception is as someone primarily to serve others and to be morally or socially accountable to others. This is in contrast to most models of leadership which are based on an implicit assumption that accountability is a function of hierarchy or relative positional power and whereby a leader’s self-perception is as someone who is organisationally accountable to specific people or bodies. (A slight exception is transformational leadership, where influence is deemed to be earned rather than organisationally-determined.) Herein lies an extensive debate in itself, which would be largely extraneous to this thesis. Nevertheless, the point is relevant in terms of later

discussion in Section 7.5, where some proposals are made about future trends and issues to be addressed in relation to leading healthcare improvement. The discussion will return to this issue at that stage.

Turning to those leadership models which appear to be of more direct significance to the research questions, it is pertinent to reiterate that this study focused on identifying leadership behaviours in improvement work. Although Northouse (2010) points out that some approaches to leadership '*define it as an act or behavior (sic)*' (p.2), none of the leadership models in the literature are articulated in detailed behavioural terms. Rather, they are described in terms of competencies or skills, with an implicit behavioural implication. Nevertheless, both the Skills model and the Style theory of leadership are akin to behavioural concepts, as they both focus on what leaders do, albeit framed as competencies or styles.

Firstly, the Skills model of leadership has some interesting parallels with the study in this thesis. For instance, it is of note that the three sets of skills identified by Katz (1955) in his early work are still evident in leadership frameworks today. He suggested that effective leadership required human, technical and conceptual skills, and furthermore, that different combinations of these skillsets were important for different levels of management work, as shown in Figure 33.

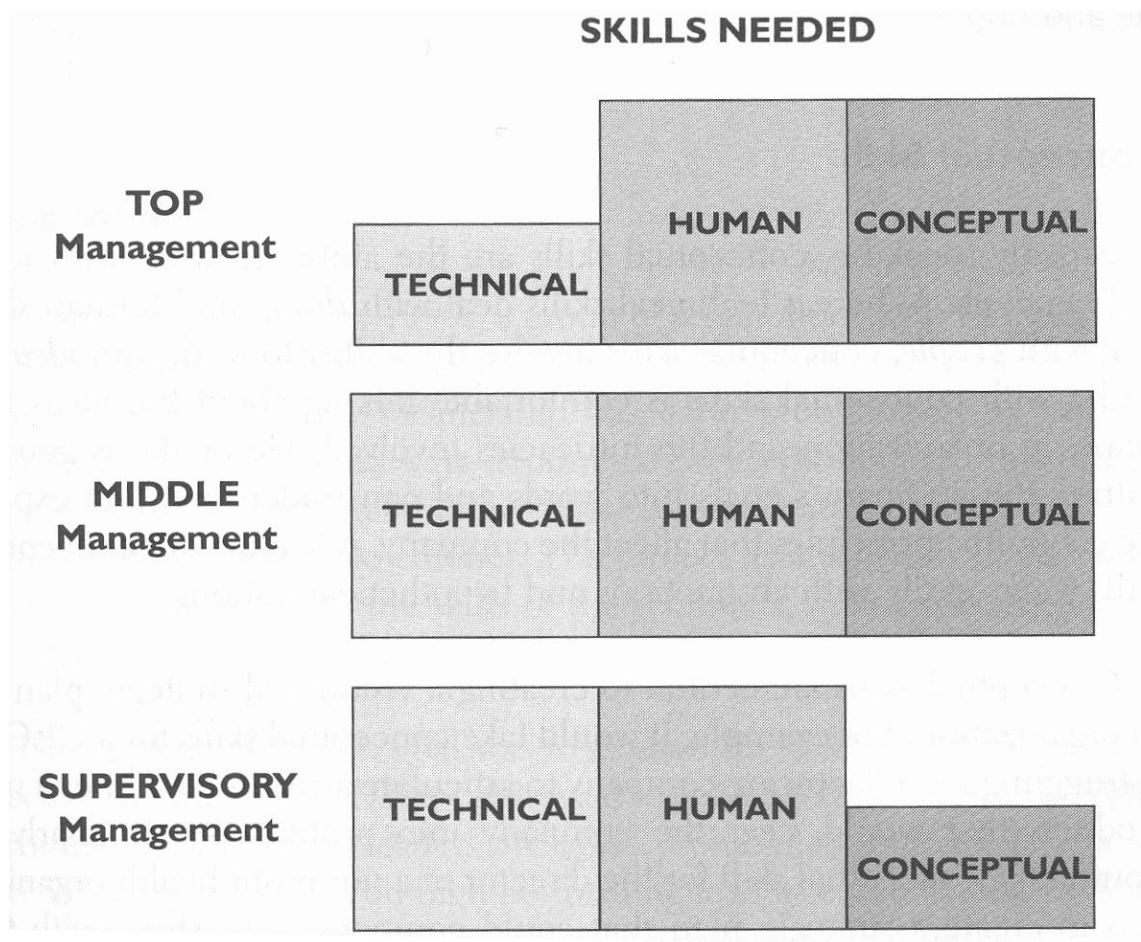


Figure 33. Leadership skills necessary at various levels of an organisation (Adapted from Katz (1955), as illustrated in Northouse (2010))

These three skillsets are directly comparable with the three Competence Areas of the IQL framework, namely Acting Effectively (technical), Interacting Authentically (human) and Conceptualising Issues (conceptual). However, the results of this study shed an alternative perspective on Katz’s assertion about how these skillsets are differentially important at various levels of management. At the middle management level, which would most closely align with the organisational level of the study participants, Katz maintained that the three skillsets were equally important. In the context of this research into NHS improvement, the results indicate that human skills are most predominant, followed by technical and conceptual skills. This study

therefore builds on and develops the Skills model of leadership by reaffirming the validity of the three key skills areas, and by providing evidence to suggest that when applied to NHS improvement leadership, the human skills take precedence over the technical or conceptual. The study was not designed to extend understanding of the Skills model of leadership, but its results provide some new insight into an evidence gap linked to this model, namely ‘What links are there between the skills and capabilities of NHS leaders and improvement?’ It appears that the human skillset is more clearly associated with leadership in an NHS improvement context than the technical or conceptual skillsets.

In addition to the Skills approach, the Style approach to leadership was identified earlier as also being associated with behaviours. Rather than focusing on specific individual behaviours, the style model of leadership categorises groups or types of behaviours which are related. As summarised by Northouse (2010), according to leadership style researchers,

‘leadership is composed of two general kinds of behaviors: task behaviors and relationship behaviors.... the central purpose of the style approach is to explain how leaders combine these two kinds of behaviors to influence subordinates in their efforts to reach a goal.’ (sic) (p.69)

These styles are often referred to as ‘autocratic’ and ‘democratic’, as a function of how task- or people-centred a leader is in achieving outcomes. The style theory is not a contingency model, in that it does not seek to connect style with context. Its focus is on explaining how leaders combine task-centred and people-centred behaviours into a

style to achieve their goals. Hence, the most obvious question prompted by the leadership style literature in relation to this study was 'Are different leadership styles evident amongst NHS improvement leaders?' (see Table 7).

It is important to reiterate that the study was not specifically designed or intended to address this particular question. Nevertheless, given the large amount of rich data gathered as part of the study from NHS leaders about the way they report their own leadership actions, the author was interested to re-consider the results in terms of leadership style.

On the basis that leadership styles are groupings of similar leadership behaviours, it could be argued that the three Competence Areas of the IQL could be considered as three distinct styles, namely an interactive/people-oriented style (Interacting Authentically), a task-oriented style (Acting Effectively) and a conceptual style (Conceptualising Issues). In this vein, the dataset obtained in the study can be scrutinised to determine whether any of these styles of leadership are predominant among NHS leaders. Figure 34 illustrates how often each of these styles was reported by the respondents. It can be seen that for the majority of respondents the interactive style was the predominant one, in most cases followed by the task-oriented and then the conceptual styles.

The strong person-orientation in the data would suggest that NHS leaders were typically demonstrating more democratic than autocratic leadership styles. Clearly, a more focused study specifically designed to investigate this would be needed to verify this apparent style pattern.

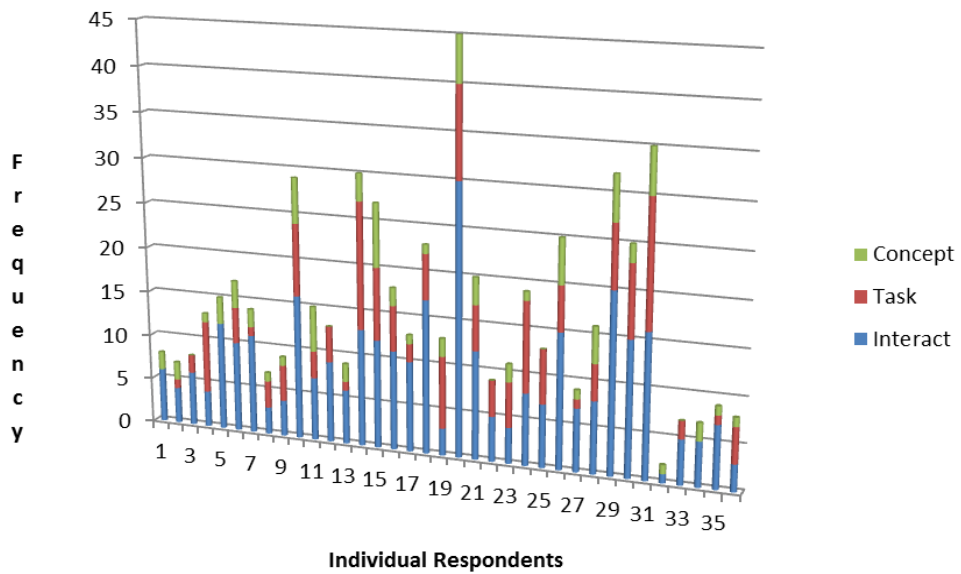


Figure 34. NHS leaders' reported styles of behaviour, by individual (n=36)

Whilst the Style concept is not based on contingency theory, given the emphasis in this study on exploring different types of leadership for different types of improvement, the relevance of the Contingency model of leadership is worth particular consideration. To recap, this is a 'leader-match' (Fiedler & Chemers 1984) theory, which tries to match leaders to appropriate situations. Two aspects are involved in the 'matching' process. The first is to assess the relative 'favourableness' of the situation encountered by the leader, determined by three factors: leader-member relations; task structure and position power. Secondly, the approach assesses the leader's style using the LPC questionnaire developed by Fiedler et al (1984) to determine whether a leader is more task-focused or people-focused. This second aspect of the approach resonates with the Style concept of leadership, and then combines the style assessment with the situational assessment. The contingency model proposes that the three contextual factors can determine how extreme or favourable any given leadership situation is, indicating which leadership style would be most appropriate.

As highlighted in Table 7, the key question linking the contingency model with this study was 'Are different leadership styles appropriate for different types of improvement work?'

Clearly, a contingency hypothesis is behind this key question. However, the study in this thesis excluded an exploration of leadership style, focusing instead on more specific, separate leadership behaviours. As a result, the design of the study was not sufficiently aligned with the contingency leadership model to particularly develop the evidence base about the overall theory.

However, the study did extend the contingency concept to some extent. The Healthcare Improvement Typology proved to be an effective measure of different types of improvement, forming the basis for assessing how leadership might enact each type of NHS improvement. Compared with Fiedler's three key factors (task structure, leader-member relations and position power), the dimensions within the Healthcare Improvement Typology offer an alternative perspective on which situational factors affect the type of leadership which should be applied to different contexts. This alternative approach suggests that relative complexity is a key measure, replacing Fiedler's notion of measuring situations in terms of how 'favourable' or 'extreme' they are. The approach in the study also adopts different dimensions as the key factors to assess the context, with less emphasis on positional power and task structure and more emphasis on intended outcomes and the influencing process. In doing so, the study adds to the evidence base regarding contingency theory in proposing a set of factors which are pertinent for contemporary leadership in healthcare. An extension of this work could be to develop the typology into a workable

diagnostic tool and to combine it with a leadership questionnaire to produce a new contingency model of leadership specifically relevant to leading healthcare improvement. Such potential developments of the results from the study are discussed in Section 7.8, which specifically considers future developments of the Healthcare Improvement Typology.

In summary so far, each of the classic leadership theories from the literature has been reviewed in the light of the study results. It can be seen that most of these were not of direct relevance to the study, although some aspects have resonance with particular strands of the research. Consequently, this study has made little or no contribution to furthering the evidence base about trait, situational, path-goal, LMX, transformational or transactional models of leadership.

The three areas where the results do shed new light on the literature base relate to the Skills, Styles and Contingency concepts of leadership (summarised in Figure 35). With regard to the first of these, the study develops the Skills model of leadership by reaffirming the validity of Katz's three key skills areas in a contemporary NHS context, namely human, technical and conceptual. In addition, the study provides evidence to suggest that when applied to NHS improvement leadership, human skills take precedence over technical or conceptual skills. This is an original finding, making a small but critical contribution to the existing - and limited - literature base. The insight that people-based behaviours are more clearly associated with NHS improvement leadership than task- or conceptual behaviours has not previously been empirically evidenced. Similarly, the study results indicate that democratic styles of leadership take precedence over autocratic styles in an NHS improvement context.

The study also makes an original contribution to the evidence base with its novel approach to notions of contingency leadership. The results provide evidence that there is potential mileage in assessing the leadership task in terms of relative complexity in order to understand appropriate leadership responses. The set of factors proposed in the Healthcare Improvement Typology are pertinent for contemporary leadership in healthcare and provide a backdrop for further studies into the link between improvement type and leadership in this context.

There are two further leadership concepts, raised in the theoretical overview in Section 2.2, which have not been discussed thus far in relation to the study findings, namely shared leadership (Gronn 2002) and leadership for complexity (Heifetz & Laurie 1997). In both cases, the concepts prove to be of limited direct relevance to the study and its immediate findings. This is partly due to the behavioural and individualised focus of the study design, which resonates more obviously with skills and styles-related theories than with the more social and contextual theories of shared and complexity leadership. Nevertheless, it is also noteworthy that these two theories are less well-developed in the literature than the others, and can be viewed as emergent concepts of the early 21st century as opposed to more established theories from the mid-late 20th century. This study has raised some interesting issues and questions in relation to these two emerging leadership concepts, particularly in highlighting some of the limitations of an individualistic frame of reference for researching leadership effectiveness. Such considerations are explored later in this chapter, in Section 7.5.

This study extends existing leadership theory by:

- Re-affirming the validity of Katz's three skills areas, but suggesting that when applied to NHS improvement, his construct of 'human' skills takes precedence over technical or conceptual skills.
- Providing empirical evidence to suggest that a democratic style of leadership is more predominant than an autocratic style of leadership in the context of NHS improvement.
- Proposing a set of factors through the Healthcare Improvement Typology as a contemporary contingency approach to leadership in healthcare, based on the relative 'complexity' of a situation, offering an alternative to previous contingency models which were based on the relative 'favourableness' of a situation.

Figure 35. *How the study results contribute to existing theories and models of leadership.*

7.3.2 Contribution to Improvement Theory

Overall, the range of theoretical improvement models reviewed in Chapter 2 provided little specific insight into the role played by leadership in achieving improvement. However, it became apparent that some aspects of several improvement models may have relevance to leading NHS improvement and to this thesis. Key questions in relation to each improvement concept were highlighted in Chapter 2, Table 3. These are revisited in Table 8 below, to provide the context for this part of the discussion.

Table 8. Questions arising from improvement theories and models

Model or Theory	Key Associated Literature	Research Gaps	Relevance to exploring links between NHS leadership and improvement
Total Quality Management (TQM) Based on the principles of customer focus; participation/ teamwork and continuous improvement	Dean & Bowen 1994 Hackman & Wageman 1995	Espoused importance of leadership to TQM is not substantially explored Theoretical framework for leading quality through TQM (Lakshman 2006) has not been empirically tested.	How important are the TQM principles to leading NHS improvement? How might TQM principles be enacted by NHS leaders?
Business Process Re-engineering (BPR) A process for re-designing key business processes to eliminate non-value-adding activities and improve efficiency	Hammer & Champy 1993 McNulty & Ferlie 2002	What contribution does leadership make to BPR beyond senior level support and drive?	Top-down, imposed approach appears to inhibit engagement and improvement. Which aspects of BPR might be relevant to leading more general improvement in the NHS?
Plan-Do-Study-Act (PDSA) and Breakthrough Collaboratives Improvement cycle approach based on making successive small but significant local improvements	Deming 1986 Langley et al. 1996	What contribution does leadership make to PDSA beyond senior level support and drive? What has been learnt about local, team-based leadership from the PDSA approach?	How is senior level leadership support manifested / enacted in the NHS? How can senior NHS leadership support team-based local leadership?
Six Sigma Approach to improvement using statistical methods to identify and then eliminate defects in processes	Deming 1986 Linderman et al 2003	Which aspects of leadership are critical to the success of Six Sigma? Critical success factors relating to leadership of Six Sigma (Antony et al 2007) require further detail and more sophisticated analysis to be of practical use.	How relevant are the critical success factors relating to leading Six Sigma when applied to leading improvement in the NHS?
Lean Focuses on making the production or service flow process more efficient, combining techniques such as waste elimination, rapid improvement cycles and CQI approaches.	Womack et al 1990 Womack & Jones 1996	Predominance of research on Lean tools and techniques and an absence of research into the human and cultural dimensions of Lean.	How important are the human and cultural dimensions to improvement in the NHS?

In terms of the role leadership plays in affecting improvement, the improvement literature seems to suggest that it is an important factor, but falls short of identifying what this means in reality, or in any way which might be practically useful to leaders in healthcare organisations. Lakshman's (2006) theoretical analysis of how TQM principles might translate from being leadership values and behaviours into quality improvement, is the clearest attempt in the improvement literature to integrate the notions of leadership and improvement. However, it stands alone in the literature as an attempt to integrate the two concepts, and remains a theoretical framework, as yet with little or no empirical underpinning.

As shown in Table 8, the earlier theoretical review of the TQM model raised the question, 'How important are the TQM principles to leading NHS improvement and how might these be enacted?' In exploring the potential relevance of the TQM model to NHS improvement leadership, it is interesting to consider TQM principles more closely. The key principles are: customer focus; participation and teamwork; and continuous improvement. According to Lakshman, (ibid) if leadership is enacted using the core values and principles of TQM, then it will have a direct relationship with quality outcomes. So to what extent did the results of this study suggest that TQM principles were central to NHS improvement leadership?

In relation to customer focus, the study provided little direct evidence of this being enacted as a principle by NHS leaders. The focus on improving services could be viewed as an implicit focus on the customer, but the IQL framework used to analyse leadership behaviours does not have a particular emphasis on client or customer focus, and so sheds little light on this area. Similarly, the IQL frame of reference does

not allow for the principle of continuous improvement to be directly analysed, so the study provided little contribution in respect of the relevance of this TQM principle to NHS leadership.

The TQM principle of teamwork and participation is arguably more evident in the leadership behaviours enacted by NHS improvement leaders. The clear association between the Interacting Authentically dimension of the IQL and the practice of leading improvement underlines the central role played by behaviours which focus on engaging with others, involving a wide range of people and building relationships to enable participation. It would therefore seem apparent that this particular TQM principle is borne out in NHS leadership improvement practice. Returning to Lakshman's analysis (2006), one of the propositions he makes is,

'Higher levels of participation effectiveness within the unit will lead to higher levels of unit performance.' (p.51)

He offers this proposition based on TQM theory as one which needs to be empirically tested. Whilst the study addressed by this thesis did not set out to empirically test the proposition, it can be argued that the study results strengthen Lakshman's proposition by providing empirical data showing that in the NHS, improvement work is associated with participatory leadership practice. Further work would be needed to explore these associations more closely, and to incorporate a measure which assessed what Lakshman calls 'higher levels of unit performance', as such measures did not form part of this study.

Returning to the question raised in Table 8: 'How important are the TQM principles to leading NHS improvement and how might these be enacted?', the study would suggest that

the principle of participation is of notable importance, enacted by means of some of the IQL Interacting Authentically behaviours. However, the study did not provide evidence about the importance of the TQM principles of customer focus or continuous improvement.

Moving on to consider the relevance of other improvement theories, the BPR model appears to be of little relevance to the study. None of the improvement work which featured in the study focused specifically on redesigning processes. As highlighted in Section 2.3.2, the top-down leadership typically driving BPR is frequently noted as a potential drawback of this improvement approach, as a possible inhibitor of engagement and hence sustainable improvement (e.g. Jones 1996). Within this study, the importance of leadership behaviours which seek to consult, involve and support collaboration are arguably suggestive of a more democratic approach than BPR seems to represent. As such, the only contribution made by this study to the BPR model seems to be in providing data to indicate that the top-down emphasis of BPR is largely inconsistent with leading NHS improvement. In response to the question raised in Table 8 regarding BPR, this study did not highlight any aspects of the approach as being particularly relevant to leading NHS improvement. In short, the BPR model of improvement offers little in relation to the study results to illuminate how leadership and NHS improvement are linked.

The same could be said of the Six Sigma model for improvement. As discussed in Section 2.3.3, the Six Sigma model resonates with a transactional approach to leading improvement, seeking clarity, control and predictability (Antony et al 2007). Of the seven critical success factors identified in the Six Sigma literature, two are of potential interest in relation to how improvement is led. The first – top management support –

found no corroborating evidence from this study, as it lay beyond the research parameters of the work. The second – what is termed ‘effective leadership’ – is defined in highly transactional terms, focusing on direction, clarity and planning. The data gleaned from this study provides some NHS-specific evidence that these types of behaviours have a role to play in leading improvement. Such leadership behaviours would be characterised in the Acting Effectively dimension of the IQL framework. The frequency with which such behaviours were reported in this study suggest that improvement leaders use these competences much less frequently than more transformationally-oriented relational behaviours. As such, within an NHS context, the study fails to produce data to support the Six Sigma contention that this construct is a critical factor in leading improvement. On the contrary, a construct of improvement based on relational leadership behaviours would appear from the study to be a more critical factor, which is counter to the Six Sigma theory base.

The other two improvement approaches considered within the improvement literature were PDSA as a specific intervention and Lean as an organisation-wide strategy. As outlined in Sections 2.3.5 and 2.3.4 respectively, the literature on both these approaches emphasise them as part of a range of tools and methodologies for improvement (Boaden et al 2008). As such, and in common with other improvement theories already discussed, there is an evidence gap in relation to the role played by leadership behaviours in effecting improvement. Beale (2005) identified part of the gap as being a lack of evidence about the ‘people’ (p.2) and cultural aspects of the Lean methodology. She argues that more research is needed into how an appropriate culture, with associated people practices, is cultivated to enable improvement. Whilst a similar

critique does not exist in the literature in relation to PDSA, some parallel questions do emerge, for example, from the literature about breakthrough collaboratives. Given that the PDSA approach is largely locally implemented, with features designed into the process to enable sharing and collaborative learning, it is perhaps surprising that the consideration of leadership's role in PDSA is limited to the importance of senior leadership support (Wilson et al 2003). There seems to be a lack of evidence in the improvement literature concerned with the cultural dimensions of approaches such as Lean and PDSA, how an improvement culture is developed and whether it is linked to leadership behaviour. When considering what the PDSA and Lean literature has to offer to this study, the questions raised in Table 8 highlight the nature of the evidence gap: 'How important are the human and cultural dimensions to improvement in the NHS?' and 'How can senior NHS leadership support team-based local leadership?'

In the absence of such literature, this study does little to directly contribute to the evidence base in this respect. Indeed, it did not aim to do so. Nevertheless, the predominance of relational, person-focused leadership behaviours emerging from the extensive and rich qualitative data in the study would seem to suggest that these aspects of improvement are important – perhaps very important. This reinforces the call by academics (e.g. Beale 2005; Lakshman 2006; Boaden 2008) for further understanding of these human, social and cultural factors in improvement theory and practice.

In summary, the results of this study have made a small but consistent contribution to existing improvement theory, as outlined in Figure 36. The consistency of the contribution lies in the central theme which emerges from the study, namely that NHS improvement leadership is primarily associated with behaviours which seek to enable

involvement, participation, engagement, effective collaboration and diverse contributions. Whilst aspects of this theme are apparent in TQM principles, they are not considered in any depth in the improvement literature. Other improvement models, such as TQM and Six Sigma, seem to be based on assumptions of improvement which aspire for control at the top of an improvement process, thereby implying a leadership approach significantly different from that empirically emerging from this study.

Having considered the detail of how this study has contributed to leadership and improvement theory, the next section takes a broader view of the study results, seeking to integrate the findings with the current evidence base, in order to draw some new insights into the question of how leadership and healthcare improvement may be linked.

This study extends existing improvement theory by:

- Providing empirical data to suggest that the TQM principle of participation is relevant and important to leading NHS improvement.
- Providing data to indicate that the top-down emphasis of BPR is largely inconsistent with leading NHS improvement.
- Producing NHS data which are in contention with the Six Sigma notion of transactional leadership behaviours being a critical success factor for improvement.
- Reinforcing the importance of the human, social and cultural aspects of improvement theory and underlining the need for further research into these areas.

Figure 36. *How the study results contribute to existing theories and models of improvement.*

7.4 The Conundrum of Collective and Individual Leadership

Having highlighted in the preceding section how the study contributes to the theory of leadership and improvement, this section takes a wider view of how the study fits within general trends in the literature, and proposes a way of conceptualising leadership for healthcare improvement. The author believes that this concept pulls together strands of evidence from a range of literature fields, and offers a move forward from the leadership models of the 20th century to an articulation of leadership which is more in keeping with the emerging context of the early 21st century.

The literature review undertaken for the study concluded that there is a small but growing body of evidence on leading improvement, which points in a similar general direction. As outlined in Section 3.5.5, it suggests that leadership for improvement is:

- Culturally-sensitive. Culture plays an important role in quality improvement, and leadership and culture are inter-dependent;
- Facilitative. It is linked less with striving to know all the answers and more with engaging others to make their personal contribution;
- Team-based. It has a direct impact on teams and their ability to improve the quality of what they do;
- Inclusive. The significance of personal style and preference has an undeniable impact, but elite, ego-centred leadership appears to be contra-indicated for improvement.

- Collective. To become embedded in the culture, the focus of improvement is on groups of individuals creating collective effort.

These characteristics resonate clearly with the concept of ‘shared leadership’ in the literature. Viewed as highly relevant to multi-disciplinary team-working in a clinical environment, the concept is defined by Spurgeon et al (2011) as,

‘a dynamic, interactive influencing process among individuals in groups, with the objective to lead one another to the achievement of group or organisational goals.’ (p.26)

In their overview of how shared leadership has been effective in a range of sectors, Pearce et al (2009) explain in more detail:

‘Shared leadership entails broadly sharing power and influence among a set of individuals rather than centralizing it in the hands of a single individual who acts in the clear role of a dominant superior.’ (p.234)

For a traditionally hierarchical, highly-structured and political context such as the NHS, such a notion of leadership poses a potential challenge. For instance, it raises issues of accountability. If leadership is shared, how equal are the shares and who is ultimately responsible for what the team achieves? If, as Pearce et al (ibid) suggest, leadership can transfer between people in rapid succession, how do team members know who holds which share of leadership at any one time – and does this matter? Spurgeon et al (ibid) propose that shared leadership is more likely to be possible where an organisational culture is ‘*knowledge-dominated*’ (p.27). This implies that the team views its strength in its collective knowledge rather than seeing knowledge vested

primarily in a single nominated leader. While this stands up to logical scrutiny, particularly in how clinical teams need to operate, it is perhaps arguable whether the cultures and sub-cultures of the NHS would really fall into this category, with its organisational form meaning that power and influence often disproportionately flow from the top downwards.

It is also suggested that shared leadership can work well where there is a shared goal requiring collective work. Whilst one might expect the NHS may to be such an organisation, the key leadership challenge within multi-disciplinary teams is often that individual team members all have their own understanding of what the goal is; and each understanding can be (sometimes subtly) different, and not necessarily shared at all.

From this short discussion alone, it can be seen that the concept of shared leadership holds potential in its application and relevance to multi-disciplinary healthcare teams, but that the devil is likely to be in the detail. As with many of the other leadership models explored in this study, there remains a lack of specific evidence to suggest what people need to do in enactment terms to effect shared leadership in their teams, and to ascertain whether this enhances improvement outcomes.

In relation to the results of this study, the emphasis on Interacting Authentically does appear to resemble some of the principles of shared leadership. The relational leadership behaviours identified by the study as important to improving services all focus on valuing the contribution of others, engaging others in making a contribution and appreciating different viewpoints. A case could therefore be made that shared leadership might provide a fruitful frame of reference for future research into leading

healthcare improvement, particularly in a team setting, moving the debate forward significantly from the intrinsic weaknesses of an individualised notion of leadership.

Having said that, it will be important to ground any further studies in the reality of the NHS context, which remains dominated by the accountability of individuals and by power derived from differential individual seniority and status. It could therefore be argued that shared leadership is an ideal but pragmatically complicated leadership concept to apply to NHS healthcare. It would seem that any application or promulgation of shared leadership in NHS teams would need to take central account of where ultimate responsibility – both managerial and clinical – lies. This is summarised by Hartley and Benington (2010), who acknowledge that in many situations, a combination of individual leadership and shared leadership is evident and necessary:

‘for example, in teams that have an acknowledged head or formal leader in terms of accountability and responsibility, but where a number of members in the team may contribute to the work of leadership.’(p.33)

This recognition that both individual and shared leadership require attention within teams seems obvious. However, it is an important reminder in what can become a somewhat polarised debate about whether leadership lies primarily in the individual or primarily in the interactions between people. There is a risk that embracing collective models of leadership could send researchers and practitioners down a path which to

some extent obscures the contribution of the individual within the broader social dynamic of the whole.

What is currently lacking seems to be a way of articulating this balance in leadership terms. This point is raised by Bolden et al (2006) in their own exploration of these issues:

‘The difficulty, however, is conceiving a post-individualistic, relational thinking and language adequate for progression beyond the individual without destroying its significance and integral role in the processes of leadership.’ (p27)

The next section presents a case arguing that a concept is required which encapsulates this balance, and acknowledges the dual significance of individual and collective leadership in leading NHS improvement. Such a concept needs to build on the principles of shared leadership, which are patently relevant to healthcare, while potentially avoiding the contradictions posed by the notion of collective leadership in an individualised organisational culture such as the NHS.

7.5 Towards a Balanced Concept of Leadership for Improvement

Returning to the list of five characteristics derived from the literature about leading improvement at the beginning of this section, these were: culturally-sensitive; facilitative; team-based; inclusive and collective. What emerges from these as a common factor is the notion of ‘connectedness’. All five features are underpinned by

the assumption that leadership is a process which connects people together. For example, this might occur in formal teams, or by means of creating a culture of involvement, or through directly engaging a range of individuals, or by encouraging ways for people to join together with others. The Interacting Authentically behaviours which emerged as so important in this study, are similarly all related to connecting people together. An earlier part of the discussion (Section 7.2.1) considered the shift in the leadership literature to the notion of leadership 'inclusiveness', which bears some resemblance to the concept of connectedness. 'Inclusiveness' will be used in this section as shorthand for the various strands of leadership theory which are based on collective principles. The differences between the theoretical concepts of inclusive, distributed, dispersed, shared, engaging and collective leadership are subtle; what they have in common is the premise that the quality of the interactions and how people work together are fundamental. How others beyond the individual leader are included in the leadership process is intrinsic to this. This study provides empirical evidence to support this, in the consistent pattern of data which shows the centrality of relationships in endeavours to improve NHS services.

Without wishing to dwell on semantics, 'inclusiveness' implies that there is something to be included in. The thing to be included in is probably the purpose of the team or group, on the basis that many people have a contribution to make and should therefore be included in it. If inclusiveness is to prevail within a team or group, it might suggest that 'we are all in it together', meaning that in order to achieve our purpose, we all need to play our respective part. While potentially seductive in its obviousness, this notion is arguably problematic at two levels.

Firstly, who decides who is included ('in it') and who is not? Power must be vested in somebody to make such decisions, and essentially to decide how far inclusiveness should extend. This also raises the probability that some people are likely to be more 'in it' than others, namely that they have proportionately more power over what happens than others. This resonates with a theme cited by Keegan (2010) in his critique of the UK government response to cutting the financial deficit:

'he (George Orwell) put it all down on paper, and one of his most famous lines is from Animal Farm, where, after the revolution, "all animals are equal but some are more equal than others". To paraphrase Orwell, under our Conservative-Lib Dem coalition, we are all in this together, but some are more in it than others.' (Keegan 2010)

As illustrated by this topical example, once exposed to the real world, the notion of being 'in it together' is, in reality, very often not the inclusive, democratic ideal which it may at first appear or purport to be.

Secondly, there are links between an inclusive leadership approach and the Leader Member Exchange (LMX) theory of leadership (Danserau et al 1975), with its connotations of 'in-groups' and 'out-groups' as described in Section 2.2.8. On this basis, inclusive leadership logically requires some people – and possibly one person – to be the gatekeeper of who is included and who is not, on the basis of the quality of the relationship between the leader and others. This takes us back to one person being essentially in charge, holding most power and making key decisions, enacting behaviours which include others as appropriate. Whilst this may reflect organisational

reality, it is to some extent in tension with the literature which promotes inclusive, shared or distributed leadership as being different from individually-focused leadership. These more collective concepts of leadership emphasise the importance of 'others' as at least equal to, and arguably greater than, that of the individual leader, spreading the phenomenon of leadership across a diverse range of people rather than in a few elite individuals. Yet when we consider how collective/ shared / inclusive leadership happens in practice, it becomes apparent that some individuals do remain more significant than others. And so the focus for researching leadership again becomes the individual, albeit in relation to others. The debate appears to be in danger of being circuitous!

Clear messages emerge from this study about the centrality of relationships in leading NHS improvement. This finding in itself throws into question the validity of a continued focus on the individual as leader when healthcare improvement seems to be, to a greater or lesser extent, a product of interactions between people rather than a direct result of individual behaviours.

Shifting the emphasis from the contribution of individual managers or clinicians to the dynamic interaction between people in a healthcare system requires a different frame of reference. In pondering this, and taking into account the apparent significance of Interacting Authentically behaviours, the author has considered the notion of 'other-centredness'. For want of a more elegant term (which does not appear to exist in the English language), 'other-centredness' in leadership terms is intended to capture the notion that a leader's role in healthcare improvement is predominantly to facilitate the contributions of others, as discussed in previous sections. However, just as

‘inclusiveness’ could be viewed as a disingenuous term, masking the real power differentials in a leadership relationship, a similar tension could be highlighted with the concept of ‘other-centredness’. For a person to be truly centred on others, or other-centric, it arguably infers that others are more important than self. This has echoes of servant leadership, as described in earlier sections (Greenleaf 1970), and which remains relatively weak in its evidence base in the literature. However, the dynamic of such a selfless conceptualisation of leadership is arguably as unbalanced and unrealistic as one which is ego-centric. The first understates the significance of self; the second understates the significance of others. Hence, the author is drawn to a concept which holds the two in balance: the concept of interdependence.

7.6 Interdependence in Leadership

‘Interdependence’ as a concept has its roots in evolution science, as one of the underlying principles to explain how life comes into being. This is articulated by Wheatley and Kellner-Rogers (1998) as,

‘Everything participates in the creation and evolution of its own neighbors. There are no unaffected outsiders. No one system dictates conditions to another. All participate together in creating the conditions of their interdependence.’ (p.14)

Bolden et al (2006) provide a rather more accessible illustration of this, referring to leadership in healthcare:

'instead of saying 'leaders act on followers', we can more appropriately say, leadership is going on within a mutually dependent association that makes any bracketing of the abstractions customarily called 'leaders' and 'followers' difficult to sustain.'(p.24)

In terms of its application to leadership, Wheatley & Kellner-Rogers (ibid) raise the dilemma discussed in the previous section:

'If evolution is the result of changes in individuals, what we need are a few individuals who can outsmart nature and win out over the competition. Yet in a co-evolving world, there is no such thing as a hero. Not even a visionary leader. Everything is a result of interdependencies – systems of organization where we support, challenge, and create new combinations with others.' (p.44)

Taking this principle to its philosophical conclusion would suggest that any focus on the individual becomes impossible because he or she is an integral part of an interdependent system. The implications of this conclusion are intriguing for a system such as the NHS, where individualism remains entrenched. However, the purpose here is not to dwell on the philosophy, nor to promote its purest meaning, but to provide a succinct introduction to the concept and to consider its potential contribution to the theory and practice of leading healthcare improvement.

In more pragmatic terms, interdependence is highlighted by Leape and Berwick (2005) as a prerequisite for safety in healthcare in their review of progress in the safety of healthcare systems:

'The combination of complexity, professional fragmentation, and a tradition of individualism, enhanced by a well-entrenched hierarchical authority structure and diffuse accountability, forms a daunting barrier to creating the habits and beliefs of common purpose, teamwork and individual accountability for successful interdependence that a safe culture requires.' (Leape and Berwick 2005, p.2387)

The assertion here is that 'successful interdependence' is a pre-requisite of a safe culture in healthcare, and that the realities of healthcare organisations provide challenges to creating such interdependence in the system.

It is important to acknowledge that interdependence as a principle is primarily based on a view of organisations as complex adaptive systems. As briefly outlined in Section 5, such a system is described by Plsek & Greenhalgh (2001) as,

'a collection of individual people with freedom to act in ways that are not always totally predictable, and whose actions are interconnected so that one agent's actions changes the context for other agents'. (p.625)

Within this body of thinking, healthcare organisations are frequently described in theoretical terms as being complex adaptive systems. Such characterisations typically include aspects such as non-linearity, unpredictability, the importance of the relationships between parts of a system and the self-organising potential of such systems (Plamping 2010).

Leadership based on interdependency can be conceived as behaviours by system members which enable parts of a system to behave more as a whole, connected system.

Clearly, this broad remit leaves extremely wide scope for specifying what such behaviours might look like. This is an area ripe for further research and practical exploration, but some initial suggestions are made below, with three main areas of focus:

- connecting the 'parts' of the system into a 'whole' system;
- connecting the system more meaningfully with its purpose and
- connecting up different ways of working into a coherent whole approach.

Firstly, leadership based on interdependence might manifest itself as intervention in the system (through behaviours) which help the 'parts' to become more connected as a 'whole'. For example, in healthcare improvement, leadership which sees the organisation or team as merely the sum of its parts (separate team members, and therefore independent rather than interdependent) would be encouraging each of those people to 'do your best'. But if everyone strives to 'do my best', this can lead to multiple, disconnected endeavours for individual excellence, which arguably do not provide a safe or effective healthcare system. For a classic example of this, the NHS Institute's learning video 'Only a Routine Operation' illustrates the point vividly through a real-life example of an avoidable death in which everyone tried their best, but working in parallel when they needed to be working together. In a multi-disciplinary clinical setting, interdependent leadership could take the form of actions to support each part of the system (each member of the team) to 'do your best for the whole'. This might involve enabling team members to genuinely share understanding about each other's roles and contributions through acknowledging and valuing their complementarity. It may also involve shifting the focus to the overall shared aim (eg

preventing an avoidable death – doing no harm) rather than becoming absorbed in one's own individual aim (eg managing a patient's blocked airway under anaesthetic – proving my specialist expertise).

Another clinical example of interdependent leadership is provided by Bolden et al (2006), who present a case for shifting the emphasis away from identifying leadership in terms of the leader (as person), to leadership as a process – in this case, in maternity care:

'looking for the 'leader' within a 20-hour plus delivery (and the antenatal care preceding and postnatal care following this 'event') is somewhat meaningless. In such a case the responsibility passes between members of the medical and support teams in a more fluid manner as the situation evolves.' (p24)

Secondly, leadership based on interdependence might help the 'whole system' to become more connected to its purpose. Behaviours might include facilitating or enabling dialogue to share perceptions and gain clarity about what 'we' are trying to achieve. What is the 'it' we are trying to achieve, and do we see 'it' similarly or differently?

Thirdly, interdependent leadership could manifest itself through behaviours which enable people in the system to negotiate a shared and agreed way of working together. Once the identity of the 'whole' is agreed and the shared purpose is achieved, the practical ways of achieving the outcome will be many and varied. The

way that 'we' proceed in making 'this' happen is something we need to explicitly talk about on a continual basis so it can adapt to changing circumstances.

The 'we' (identity), the 'it' (purpose) and the 'together' (connectedness) therefore form the central tenets of interdependent leadership to make 'We Are In It Together' a meaningful and dynamic endeavour; in this case, improving healthcare.

Three foci of leadership are therefore proposed for an interdependent system:

- 1 Achieving shared identity;
- 2 Achieving shared purpose;
- 3 Achieving connected ways of working;

Further work would be needed to develop these ideas further, to test them empirically in a healthcare context and to develop a workable model of leadership. As a theoretical concept, interdependent leadership has the potential to bridge the gap in the debate about how individual and collective leadership can co-exist. Its starting point is simply that within any system, both the individuals (the 'parts') and the multiple relationships between them (making up the 'whole') will be part of organisational reality. Accordingly, mobilising the system to connect together effectively with a shared identity around a shared purpose becomes the core focus of the leadership process. At a practical level, interdependent leadership offers the basis for an alternative emphasis in developing leadership in healthcare organisations, complementing the teaching of skills to individuals with a collective, team-based approach to leading improvement with a shared purpose.

7.7 Critique of the Study

This work was not undertaken as a pure research study, but as a commissioned piece of evaluative work, to meet particular client needs. As such, there are aspects of the study which could have been done differently, to achieve the same or similar ends, and which could arguably have provided additional or deeper insights into the core research questions. This section considers some of the limitations of the study, in the form of an overall critique, focusing on three specific areas.

7.7.1 Limitations of an Individualised Frame of Reference

The preceding discussion about emerging concepts of interdependence and shared leadership highlight the intrinsic limitations of an individually-focused frame of reference when researching leadership of healthcare improvement. For a critique of the study, this would seem to be an obvious first point to consider.

The study aims were predicated on the respondents being individual participants of the THF leadership schemes. In practical terms, the only feasible unit of behavioural analysis was at the individual level. The leadership schemes from which the study participants were drawn were all aimed at developing the leadership capability of individuals, in order to influence their working context. This underlines a key assumption that leading improvement is to some extent dependent on the actions of of certain individuals. Edmonstone (2011) highlights this assumption in his critique of individualised leader development:

'The assumption to date has largely been that by developing individual leaders, social capital will also develop, albeit in a fairly random and indiscriminate manner.' (p.16).

He argues for a move away from the exclusive focus on *leader development*, which creates '*individual human capital*' (p.8) to a more balanced approach of *leadership development* which includes an emphasis on the development of '*social capital*' (ibid). He proposes that this chimes with models of collective leadership, and shifts the core question behind leadership development:

'From this perspective, leadership development does not ask "How do we make better leaders?" but instead "How do we improve leadership in the system?"' (p.11)

Linking this to the previous discussion, a case can be made that the latter question reinforces the relevance of interdependence in leadership terms. Building social capital can be equated with building connectedness and interdependence between people in the system, whereas building individual capital has more in common with developing individual leadership competence.

In Edmonstone's (2011) terms, the choice of the IQL framework as an individually-based set of behavioural descriptors was made on the basis of leader development rather than leadership development. As the study unfolded, and particularly as the literature was more closely scrutinised, it became apparent that leadership for healthcare improvement is theoretically and practically more appropriately framed within a team-based or whole systems context, and consequently, an individualised

analysis of leadership behaviour is inherently limited. Some of these limitations became obvious in the use of the IQL as an analytical framework. For example, when mapping the IQL against the range of leadership models and theories from the literature, it seems clear that the framework articulates behaviours in purely individualised terms, mainly reflecting Trait and Skills models of leadership. The underlying assumption is that leadership is enacted through individual behaviours, sometimes by interacting with others, but largely centred on what the nominated leader does. It could be argued that when studying leadership specifically for improvement, this assumption is past its sell-by date. This belief is robustly argued by Bolden et al (2006):

‘We should no longer judge by selecting and breaking down the complex reality of leadership into a few key people and fragmented ‘qualities’, as with frameworks and standards, but intuitively grasp it as constantly in the making Each time we cut leaders out from the world of experience we detach them from whatever reality it is that they belonged to. This deletes the background, the surroundings, the past, and their connections and links to the rest of the world.’ (p21)

More contemporary concepts of leadership which increasingly feature in the literature, such as distributed, shared and collective models, are not reflected in IQL’s theoretical basis, its structure or its articulation. Bolden et al (ibid) support this argument articulately, asserting that leadership competence frameworks,

'tend to oversimplify and may prove to be of limited, practical value within the climate of complexity, interdependence and fragmentation that arguably characterizes multi-disciplinary organizations such as the NHS' (p. 20)

Therefore, while the IQL is an effective analytical framework for individualised leadership, and hence was an appropriate instrument to use for this study, it would not be fit for purpose for a more contextual investigation of leadership, for instance, one based on the notion of interdependence.

7.7.2 The Significance of Context

Another aspect of the study, which arguably transpired to be a weakness, was the lack of consideration of context when examining the leadership process of enacting behaviours to bring about healthcare improvement. The organisational context of the improvements being made by NHS leaders was deliberately excluded from the study, despite an awareness in the research team of its potential relevance. This was a pragmatic decision based on the fact that it was not a priority at that time for the client, and should it have been incorporated, it would have changed the nature and focus of the study beyond what the client wanted.

In the absence of a contextual consideration, the risk with a study such as this one is that results are interpreted in inappropriately absolute terms. Hartley & Benington (2010) caution against this in their concluding comments from their review of leadership in healthcare, reminding the reader that,

*'The evidence from leadership studies and experience in healthcare is that there is no 'one best way' of being an effective leader.....This takes us back to the critical importance of accurately 'reading' the context in which leadership is exercised. Leadership benefits from an approach that is not uniform or universalistic, but that asks key questions: **what will work, in what circumstances, why and how?**' (p.129, original emphasis)*

It would be fair to say that this study did not attempt to 'read the context' in which the study respondents were leading improvements in any detailed way. Neither did it explicitly require the respondents themselves to consider their own context or its relevance to the leadership behaviours they chose for enacting improvement. Pursuing these two avenues would arguably enhance such a study by acknowledging that any quest for universalistic principles in leadership is, to a large extent, flawed.

As highlighted by Dopson & Fitzgerald (2006), *'an identification and analysis of 'context' has to be part of any full account'* of organisational change. (p.22). They suggest that such an analysis might include geographical, intersectoral, historical, cultural and social aspects of organisational context. They also remind us of the fact that some organisational contexts are more 'receptive' to change than others, for a wide range of reasons. The breadth of areas for consideration required for a good analysis of context illustrates why context was necessarily excluded from the study, given the time and resource constraints relating to the client's requirements of the study.

In terms of leadership theory, the significance of context links back to contingency models which are discussed in Sections 2.2.4- 2.2.6. (Fiedler 1964; 1967). These models tend to emphasise the importance of factors such as the motivation of staff, the type of task in question, the relationships involved and relative power. As observed by Bolden et al (2006),

‘whilst situational factors may be considered, they are not generally viewed as barriers to an individual’s ability to lead under different circumstances.’ (p. 17)

This is a reminder that a consideration of context does not replace a consideration of individual leadership approach; it merely adds another dimension to understanding leadership – a dimension which was not part of this study.

The situational factors identified in the literature mainly relate to the direct situation in which the leader is functioning at a local level. There is nothing in this study to suggest that these factors are not appropriate and relevant. If anything, the results of the study reinforce the significance of relationships as a local contextual factor.

However, the timing of this study has perhaps pinpointed a wider aspect of context which seems to be of relevance in an exploration of how leadership is linked to improvement. The study was undertaken during 2008-09 and written up during 2010-11. Just in this short period of three years, the economic and political landscape for healthcare shifted in significant ways, raising the question of how macro-contextual issues impact on leading healthcare in the UK NHS system. This question will be further discussed at the end of this thesis.

7.7.3 More Direct Comparison of Mindsets and Behaviours

Section 7.2.4 outlines the differences between reported behaviours and espoused mindsets emerging from the data, and highlights ambiguities about whether this is a function of the data being derived from different samples of NHS leaders. Whilst the use of different respondent samples in this study was due to logistical and practical limitations, a future study would be enhanced by using the same sample for the semi-structured interview and the Q-Sort data. This would enable more direct comparisons to be made between how leaders say they behave and what they believe to be important behaviours in leading improvement.

7.7.4 Bias in the Study Sample

It is important to acknowledge that the sample of respondents in this study cannot be viewed as representative of typical leaders in the NHS. As THF Award Holders, all study respondents had been pre-selected by means of a rigorous assessment process, and judged to be individuals showing significant potential to develop into improvement leaders. This would suggest that their motivation, skills and aspirations may all be exceptional rather than normal. It is therefore important to take into account the calibre of the respondents when interpreting the results, as the indications from this study would need to be tested on a sample which more widely represented NHS improvement leaders who had not been subject to pre-selection.

7.8 Next Steps in Understanding Improvement ‘Type’

One of the most interesting outputs of this study has been its contribution to the field of leading healthcare improvement by developing the Healthcare Improvement Typology. The value of such a framework lies in its potential to help navigate the extensive arena of healthcare improvement. It illustrates how different improvement work varies, and provides a means of identifying where a single piece of improvement work sits within a spectrum of relative complexity. This is not merely an academic exercise, but has potential for practical application to healthcare improvement work.

As a reminder, the key insights gained from the development of the Healthcare Improvement Typology were:

- no previous framework existed for the purpose of investigating how improvement is enacted or implemented;
- a matrix framework approach incorporating a range of dimensions reflects the multi-faceted nature of healthcare improvement work more effectively than one which places such work into a singularly-defined category;
- at the outset of this study, it was unknown whether the complexity of an improvement initiative had any relevance to the type of leadership used to enact it. Complexity was shown to be a useful concept with which to compare improvement work from a range of different perspectives;
- the instrument developed proved to be a robust metric in the context of the study. Given the small sample size, the extent of significant relationships

shown by the correlation analysis indicates that the links between the complexity of improvement work and their associated leadership behaviour patterns are noteworthy;

These insights all make a contribution to understanding how improvement can be categorised and compared, enabling a depth of analysis into how improvement happens, which was not possible before. This could be of practical use in a number of ways. For example, in developing and supporting improvement leaders, it could be beneficial for people to be able to identify or diagnose the nature of the improvement work they are undertaking, in order to prepare an appropriate leadership approach. Coupled with information about which sorts of leadership behaviours are differentially required to enact various types of improvement, it could be possible to prioritise the development of certain skillsets, if required, to help optimise the leader's ability to achieve a good improvement outcome. In addition, the typology could provide a robust analytical framework to support further research into improving healthcare services.

Notwithstanding these potential benefits, in its current form, the Healthcare Improvement Typology is some way from achieving this purpose, and significant further work, as outlined below, would be required to develop it into an instrument with widespread applicability.

Firstly, the instrument would require further validation before it could be considered for practical use. For instance, the results of this study highlighted the need for the Focus dimension of the instrument to be reviewed. As described in Section 6.6.1, a lack

of coherent meaning emerged from the data in relation to the 'Focus' dimension. While this may be due to the small dataset, it throws the usefulness of this dimension into question. As the significant correlations for this dimension are of a very small number, it would seem that it would need to be tested on a larger and wider sample in order to ascertain its significance, and to inform a decision about whether the dimension should be retained or not.

Secondly, the typology is currently limited by requiring expert use, thereby limiting the scope of its application. As described in Section 5.2.7, the decision was taken during the piloting of the instrument that it would be administered by trained 'experts' (i.e. the researchers and people trained by them), rather than as a self-assessment measure. This met the specific purposes of the study, but clearly, such a move made the wider dissemination of the instrument harder to envisage.

Reaching a point whereby the instrument could be widely used would require it to be developed into a more user-friendly format. Firstly, the typology (as shown in Figure 4, page 135), would need to be extended to include a detailed descriptor for each rating level 1-7 for each dimension, rather than just ratings 1, 4 & 7 that it currently includes. Other possible options for developing the typology into a self- assessment instrument might include developing a standardised questionnaire, which would enable any piece of improvement work to be categorised into one of several predefined 'types'. These type categories could be given names to make them more memorable, and could be underpinned with a set of behavioural indicators, which could be used for leadership development purposes.

In addition, for the Healthcare Improvement Typology be used on

Finally, the organisational context for using the instrument would require further considered exploration. Within an NHS context, the hierarchical nature of organisations can lead to certain assumptions underpinning organisational studies. As outlined in Section 5.2.8, such an assumption consciously existed in the research team, namely that an improvement occurring at a local level, led by someone in the lower hierarchical levels of an organisation, would require simpler, and possibly fewer, leadership skills than a change being led by someone senior in the hierarchy, attempting to change things more strategically. Other members of the team remained unconvinced about this issue, and the study provided, to some extent, a way of testing it out.

As the study has shown, the results indicated that the level of improvement work did not appear to significantly affect the typical pattern of leadership behaviour used to bring about improvement. The Interacting Authentically behaviours were reported more frequently regardless of the level of the improvement work. This might suggest that the hierarchical level is of less significance in practice than might have been assumed. A corollary of this finding could be that if leaders at a local level in healthcare organisations develop effective behaviours for interacting authentically, then improvements to healthcare could be enabled. However, it would be naïve not to take into account the extensive literature which stresses the need for senior management support for improvement work (e.g. Wilson et al 2003; Antony et al 2007). At the end of this study, therefore, it would seem that optimal improvement conditions might include both senior support and local leaders with the relevant behaviours.

This aspect of the typology, linked to contextual factors, raises a wider important point about the validity of the Healthcare Improvement Typology. As outlined in Section 5.2.8, the researchers acknowledged the significance of contextual factors, but decided that it was beyond the scope of this study to examine contextual factors in specific terms. While this decision was expedient for the purposes of the study, it would not stand up to scrutiny if the typology were to be applied for broader purposes. In this case, it would be crucial to validate the instrument in a range of different organisational contexts, in order to ascertain what, if any, impact these additional factors may have, and indeed whether they might need to be explicitly incorporated as additional dimensions in the typology, as potential factors influencing the overall complexity of improvements being made. Significant further work would therefore need to be done in this respect. . An extension of this work could be to develop the typology into a workable diagnostic tool and to combine it with a leadership questionnaire to produce a new contingency model of leadership specifically relevant to leading healthcare improvement.

In summary, the extensive work done as part of this study to develop the Healthcare Improvement Typology was an essential underpinning to the work in pursuing its aim of exploring the links between NHS leadership and improvement. Furthermore, it created a unique and robust tool for classifying and differentiating healthcare improvements, with both academic relevance and potential practical application. The work to categorise improvement type and to link it with leadership behaviours could be further developed in a range of ways, some of which have been outlined in this section. Any further development would require significant resources and a clear

sense of ultimate purpose. Whilst a case could be made about what the purpose of such developments would be, the resource issue is less straightforward, highlighting the relevance of the broader economic environment to studies such as this. The final section of this discussion, in Section 7.10, considers how changes in the economic and political context of healthcare in the UK may affect improvement leadership in the NHS going forward. Prior to this, Section 7.9 considers possible future directions for research to further explore the links between leadership and improvement in the NHS.

7.9 Future Research

This penultimate section moves the discussion forward from the results of the study and considers associated areas which would be fruitful for future research.

It is worthwhile restating that the focus of this study, namely the links between leadership and improvement in the NHS, is an under-researched area, with a weak empirical base. One consequent drawback is the lack of evidence available with which to corroborate or to challenge the findings of the study. In the absence of NHS-specific data pertaining to leading improvement in particular, it is necessary to draw reasoned but nevertheless tentative conclusions. With this caveat, these then provide a suggested basis for future lines of inquiry and investigation.

An important observation arising from the study is that the literature base does not appear to effectively integrate the areas of leadership and improvement. There appears to be a shift in the improvement literature towards more consideration of the human dimensions of improvement, but proponents of this (eg. Beale 2005) seem to

still be a relatively small minority amongst researchers in the field. Similarly, some leadership studies, and specifically those relating to the NHS, do seem to be turning their attention to the role of leadership in improving patient care (eg Nicolson et al 2011). However, the fields of improvement and leadership still largely seem to be separately considered.

Boaden et al's (2008) review of improvement in healthcare concludes that improvement tools and techniques on their own do not lead to quality; rather, there is general agreement that it is system issues that determine quality, and that tools only have limited impact on changing the system. Leadership would appear to be one of these systems factors, but as yet, research activity remains limited into how leadership has such an impact. As Morley (2009), an experienced NHS Chief Executive, highlights in his reflections of his 26 years as an NHS manager,

'Change is a coin with two sides. One side is the improvement science. The hard, tangible, 'real' things that one can alter, adapt, re-engineer or re-design... Yet the other side (relational practice) is where we so often fail to consider – the side where beliefs, values, behaviours, paradigms and culture live; the soft, intangible, insubstantial, hard-to-define things. Yet we ignore these at our peril.' (p22)

Both sides of the coin are now acknowledged as important, albeit with a continuing emphasis in practice on the former. Whether and how the two can optimally be combined in different contexts and for different outcomes, would appear to be an area ripe for further investigation.

In terms of following up specific results emerging from this study, one aspect would be to more deeply investigate the correlations between the leadership behaviour data with the Healthcare Improvement Typology data. These suggest that certain leadership behaviours are differentially important depending on the complexity of improvement work being undertaken. While some associations were shown to exist, it would be necessary to gather more data in order to verify this initial pattern of linkage. The aim of doing this would be to identify more accurately those leadership behaviours which may be most useful and appropriate for various types of improvement work. It seems a fair assertion that it is unlikely that any one person can excel across the whole range of leadership behaviours required for healthcare improvement. It would therefore be both desirable and necessary to prioritise and tailor leadership development activities to focus on skill areas which would make the most difference.

Having said that, this sort of research would reinforce a competence-based approach to classifying leadership behaviours. Through this study and the associated learning and thinking, the author is strongly persuaded that this narrow, uncontextualised perspective is of very limited value in researching the impact of healthcare leadership, for the reasons discussed earlier in this chapter. Instead, the author would be inclined to pursue research interests which located leadership as a process of enabling effective interdependence in a system, within a real-time context of healthcare and with a focus on the collective purpose of the system. Bolden et al (2006) summarise this sort of approach in their own critique of NHS leadership development:

'We thus call for a broadening of the scope of focus for leadership beyond the individual to a fuller consideration of processes of social influence situated in context. This requires a degree of reflection and self-responsibility in all of us; a mode of conduct that stops subordination to a powerful individual and enables professionals to act and engage with others and their priorities collectively. An important task now is to examine the evidence for the claim that leadership, in a much more primary sense than typically endorsed by extant leadership competency frameworks, is to be found within a system of interdependencies and without an individual or collectively organized agent to serve as a centre or pivot.(p. 26)

The challenge they pose, namely to examine the evidence for such an alternative conceptualisation of leadership, would be the starting point for designing research methodologies to test this out empirically. Bolden et al (ibid) go on to suggest that the focus of research needs to move from individuals to real healthcare teams:

'in a healthcare setting perhaps it would be better to reconnect with how a moving, living, multi-disciplinary team such as a maternity department works effectively together over a sustained period to facilitate the effective delivery (so to speak) of a desired outcome. In such a scenario it is undoubtedly the relations of the medical team, patient, organizational systems and a whole host of other factors that

makes leadership far more than the personal qualities or intrinsic intentionality of any one of the individuals involved. (p23).

How the interdependencies of such a team combine to enable (or not) effective healthcare delivery and improvement, would offer huge scope to develop a deeper understanding of the practices of leadership and improvement.

7.10 Leading Healthcare Improvement beyond 2011

The end of this study in 2010 coincided with two significant societal changes affecting the UK healthcare context. Firstly, the 'credit crunch' leading into recession meant that the NHS was facing the biggest financial challenge in its history. In a service accustomed to real-terms increases averaging 7 per cent over the past decade, commentators estimate that the NHS budget will grow by just 0.1 per cent a year until 2014/15. (King's Fund 2010). The implications of this are widely debated, but the NHS Spending Review committed the NHS to delivering up to £20 billion a year in efficiency savings by the end of this period. This must be achieved while grappling with rising demand for services from an ageing population, increasing levels of chronic disease and cost pressures that are squeezing local budgets. The conclusion of an analysis by The King's Fund and the Institute for Fiscal Studies (2009) was that closing the financial gap would inevitably involve major improvements in NHS productivity, with year-on-year savings required of up to 6 per cent for six years. Doing more for less has become common parlance among managers and clinicians alike.

This economic picture formed the backdrop for the 2010 political changes in the UK, in the shape of the coalition government, having direct impact on the policy context for the NHS. The stated aims of the White Paper, 'Equity and Excellence: Liberating the NHS' (Department of Health 2010) were putting patients and the public first and improving health care outcomes. At the time of writing, the subsequent and highly controversial Health and Social Care Bill 2011 is still being challenged from many angles as it progresses through its readings in the House of Lords.

Here is not the place to enter into commentary or detail about how the financial and political landscape will affect NHS improvement work. It is relevant to highlight the situation as a contrast to that described in Section 1.5. The difference in just three years is stark.

The full implications for leadership and improvement work in the NHS have yet to emerge, but commentators are cautioning against a reactionary and defensive entrenchment to efficiency-driven approaches:

'there is a particular need for organisations to work together in local systems of care to rise to the quality and productivity challenge. As this happens, it will be essential to ensure that there is a continuing investment in developing leadership and change management capabilities at all levels of the NHS. This includes the development of both clinical and managerial leaders' (Appleby et al 2010, p.3)

The dramatic shift in the overall context of UK healthcare means that investment in research and development to better understand the impact of leadership, risks being

eclipsed by more urgent financial imperatives. It would not be surprising to see questions such as those in this study viewed as luxuries the NHS can no longer afford. The newly-emerging ideas about leading improvement in healthcare alluded to in this study are arguably just as relevant to short-term, efficiency-based demands as they would be to longer-term, quality-oriented aims. Whether researchers and practitioners will have the opportunity to test this hypothesis in coming years remains to be seen.

7.11 Concluding Remarks

This thesis intended to explore the links between leadership and improvement in the NHS. The two core research questions sought to uncover how the two are linked, and also whether different leadership behaviours are associated with different types of improvement work.

The study has confirmed that the two are linked, and has contributed new and NHS-specific evidence to indicate that relational leadership is clearly associated with improving NHS services. In specific terms, the study provides a small but convincing case that enabling and facilitating others to make their contribution is central to leading improvement in the NHS. The insight that relationship-based behaviours are more clearly associated with NHS improvement leadership than task- or conceptual behaviours has not previously been empirically evidenced. This is an original finding, making a modest but critical contribution to the existing - and limited - evidence base.

It moves thinking in a clear direction beyond the notion of 'leadership as individual' to 'leadership as a relational process'.

This finding supports a growing trend in the evidence base from healthcare and other sectors, but has the distinction of being specific to NHS improvement, an area where few other empirical studies are currently evident in the literature.

The study has also developed an instrument for differentiating different types of healthcare improvement, which is a clear and original contribution to the field of NHS improvement, where such an instrument did not previously exist. In addition, the study showed a link between improvement type and leadership behaviours used, where no link had previously been established. Whilst further research is needed to clarify the exact nature of such an association, the development of the Healthcare Improvement Typology in this study is a unique contribution and provides a solid basis on which further work can be based.

In conclusion, the study has successfully extended and deepened what is known and understood about how leadership is linked to improving NHS services. The findings have potential implications both for leadership practice and also for leadership development. Firstly, for leadership in practice, the thesis strongly supports the proposition that, in the context of improving healthcare, leadership is effective when exercised as a socially-interdependent intervention in a system. Secondly, for leadership development, the findings point towards a rebalancing of provision, combining skills development with processes for supporting teams and groups to use their interdependence as a means to achieve shared purpose. Finally, the Healthcare

Improvement Typology offers dual potential. In respect of supporting leaders, it offers an outline framework for diagnosing different types of improvement work and selecting certain leadership approaches accordingly. In relation to research, it provides a basis for further studies which might aim to investigate the significance or relevance of different types of improvement.

There is much more still to learn about optimizing the impact of improvement leadership in an NHS context, but this thesis has taken some important small steps which help pave the way towards further understanding of these complex issues.

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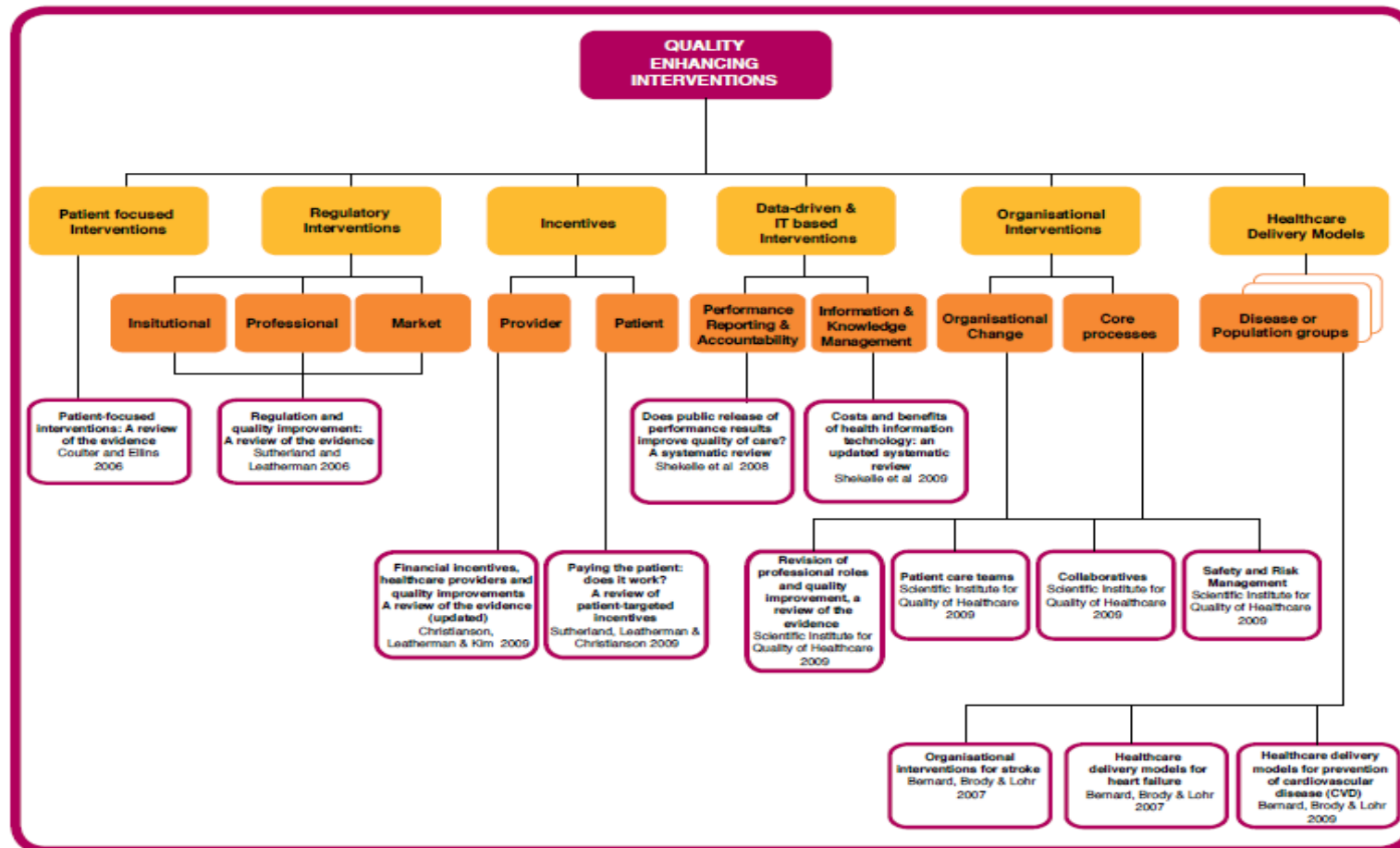
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APPENDICES

A1 Quality Enhancing Interventions (QEI) Taxonomy Leatherman & Sutherland (2007)



A2 Notes to research team on types of improvement from reviewing THF application forms

These notes apply to Leadership Fellows only, in the first instance. Application forms for cohorts 1-3 did not have specific questions relating to service improvement, so I have only reviewed application forms for around a third of the Leadership Fellows (20 people). Application forms for cohort 4 had a specific question, providing relevant data, and the forms for all these participants have been reviewed (16 people). In addition, 6 End of Award reports for Cohort 2 and 2 Interim Reports for cohort 3 have been reviewed.

I did a quick analysis of the data against the QQUIP framework and the majority mapped onto categories 1 (patient-focused interventions) and 5 (organisational interventions), but there were examples from all categories except 3 (Incentives), and as such, the framework did not differentiate effectively between the different service improvements. This framework is not sufficiently detailed for our purposes.

I attach my own initial attempt to group the service improvement data I have identified. This is an attempt to build up from a blank sheet of paper, rather than be limited by previous typologies etc, such as QQUIP. This may prove fruitless, but I feel it is hasty to be reducing our data down into pre-determined categories before we have considered it in its raw form.

What has struck me most so far is how difficult (and possibly counter-productive) it is to attribute a service improvement example to just one 'type'. In my list below, I have indicated in red those service improvement examples I have found which obviously fall into more than one QQUIP category. (ignore the numbers – they are for my own referencing purposes).

It seems to me that many of the examples incorporate several 'types' and are more complex than a single dimensional typology would suggest. I am interested in the concept of a matrix encompassing 2 dimensions. Also, I am wondering about a typology framework which somehow indicates levels or layers of impact (which would suggest 3 dimensions). For example, there are service improvements which would get a tick against 3, 4 or more of my crude categories. Others clearly only sit in one. So it would seem important to be able to differentiate between the depth or breadth.

I will ponder this more for our discussions on Monday.

Jeanne

21.04.08

Achieve externally-driven standards

104	Meet access and KPI targets
105	Implement NSFs
113	Improving organisational performance at 4 challenged Trusts (by SHA)
208	Improved ambulance 8 minute response times by 14%
211	Improvement in clinical division performance
407	Reduction of waiting times

Introduce new clinical processes

102, 218	Service redesign
107	Develop new models of care (for new build)
217	Developing new low secure intensive care mental health unit (based on different/new care principles)
206	Introduce West Yorkshire-wide direct referral by paramedics to angioplasty service for heart attack patients
403	Engaging doctors in care planning
407	Reduction of waiting times
411	Shift from inpatient to day case / community

The role of the service user

103	Patient involvement in service change
402	Copying GP letters to patients
404	Improving the clinic experience
405	PDSA cycles to enable patients to be more involved in their consultations
407	Reduction of waiting times (gathering patient views)
412	Developing culture of collaboration with mental health service users
420	Engaging young people in developing services
421	Baseline and measure patient satisfaction
422	Supporting people to become 'expert patients'

Inter and intra-organisational working arrangements

106	Improve partnership working
111	Successful integration between NHS Direct and 999 service
114	Developing a neonatal network
210	Clinical engagement in PbC
212	Development of a Cleft Lip and Palate Network in North West, Isle of Man and North Wales (bringing 4 previously separate units together)
214	Improve multi-disciplinary working
423	Engaging learning disability services more with primary care

Enhance current clinical practice(eg. make safer, more effective)

108	Improve clinical governance
101	Improve patient care
110	Evidence of a safer, patient-centred service
115	Reducing MRSA rates
121	Improved clinical risk management
207	Clinical standardisation across 3 formerly separate ambulance services
216	Reduce CDiff rates
401	Improving patient safety and outcomes
403	Engaging doctors in care planning
404	Improving the clinic experience
405	PDSA cycles to enable patients to be more involved in their consultations
407	Reduction of waiting times
414	Improving nutritional care for patients

Improve access to services

109	Modernise emergency access
112	Provision of out of hours single access routes
117	Developing Choose and Book
119	Developing unscheduled care services in partnership with primary care
203	Improve access for mental health service users in primary care
206	Introduce West Yorkshire-wide direct referral by paramedics to angioplasty service for heart attack patients
219	All parents of affected newborns seen within 24 hours by specialist team
215	Develop an Emergency Assessment Unit
413	Online health promotion re. drugs and alcohol
417	Redesigning referral pathways to 2ry and 3ry care

Building Infrastructure

116	Developing country's 1 st Independent Sector Diagnostics Centre
217	Developing new low secure intensive care mental health unit
416	De-commissioning and re-providing 16 bed independent community MH hospital

National improvement initiative

118	Leading 'Improvement Partnership for Hospitals' (IPH)
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Working Practices

120	Different ways of working in A&E
202	Preparing nurses for Nurse Consultant roles
209	Emergency Care Practitioners delivering better care to patients in own home
301	Enhanced understanding among professionals of health promotion and public health
411	Shift from inpatient to day case / community

Auditing, reviewing, assessing current quality

- | | |
|-----|---|
| 201 | Reviewing city-wide talking treatments |
| 418 | Developing contract data to enable whole system comparisons |

Other

- | | |
|-----|--|
| 408 | Improved management of outpatients |
| 415 | Attract equitable resources for mental health services |
| 424 | Keeping children's services agenda mainstream |

A3 Examples used for first internal reliability testing of FLP matrix

Example 1

HB (C3) Leadership Fellow has successfully undertaken a major shift in his Trust over 18 months. He has just successfully proposed in Exec Ops of the Trust an implementation plan that responds to activity data about different patches of the Trust, without opposition of any kind from the three areas whose shortcomings the data highlights despite the fact that clinical morale is very low for another reason and that 18 months ago clinicians rejected data suggesting performance variations as unsound and preferred anecdotal narrative. What contributed to this success has been:

- i Recognised improvements in the collection and standards of data - more resources and better systems
- ii The collecting of data and its use was owned by the larger clinical leadership body - 30 odd people because they proposed 18 months ago improvements were possible by harmonising services across the patch - HB then ran with it
- iii He aligned this change with others and brought the finance director to a organisational culture workshop which was part of the leadership scheme, specifically to get aligned planning with him - it will all fit service line reporting and zero-budgetting.
- iv He introduced the data 4 months ago in a way that demonstrated it would not be used for finger –pointing

The extensive collection of data will now be the basis for improvement activity across the Trust. This has been done in 18 months.

Example 2

TS (C3) has led the process of managing GP practices who pursue inappropriate prescribing practices. She has created a PCT process towards ending their contract, should there be no change, and she has managed senior PCT managers to respond appropriately to one practice about which the Board is deeply concerned. She has planned and handled very confrontative meetings.

Example 3

JR (C2) has led the development of an improved, equitable, sustainable, high quality Cleft Lip & Palate Network throughout the North West, Isle of Man & North Wales. This provides rapid and continued local support on the birth of a baby with a cleft via a Network-wide nurse-led and provided on-call service, which has been introduced (and publicised) covering all new referrals to the service, throughout the large geographic area covered. This ensures that all 'newborns' and their parents are assessed and counselled by a specialist nurse within 24 hours of diagnosis. Parts of the Network area had not previously had this level of specialised advice so rapidly.

JR led the process for agreeing a service specification and surgical model for the new service with colleagues and specialised commissioners. £1,050,000 recurrent new resource has been provided for the Network. This has been used principally to increase staffing – to improve the initial contact and support as well as local services for families through outreach, to increase the time available to clinicians for patient consultation and treatment and to enhance the co-ordination of services. High calibre colleagues have been appointed. Mechanisms are in place to measure some early indicators of improvement – although it will take many years before the more significant treatment outcomes will be able to be assessed meaningfully.

The views of patients and families have been sought using a questionnaire regarding their involvement with the management of the service. This has been followed by an initial meeting (attended by around 70 patients/carers) to explore this and other issues further.

Example 4

RP (C2): In partnership with the Consultant Microbiologist, she co-chaired the work stream to reduce Clostridium Difficile rates within the Trust. Result: C Diff rates in the Care of the Elderly Directorate reduced from 22 cases per month down to 2 in November 2007. She was instrumental in developing antibiotic procedures across the Trust, including a training programme for all staff within the division and achieving 87% attendance. Engaging with medical colleagues to ensure that the reduction of C.Diff and, indeed, all infection control standards were locally owned and the measure of reduction was sustainable. Constructed and implemented a Ward Managers' Environmental Checklist to strengthen accountability for their environment, this was quickly adopted Trust-wide. Operational responsibility of setting-up and overseeing the formation of an Isolation facility.

Example 5

RP (C2): Reducing Silo Working - Ensuring teams across Care of the Elderly work together better to look at ways to deliver high quality patient-focused care. This has been achieved by developing senior ownership out-of-hours across the unit. The construction of team awaydays every Wednesday with the emphasis focusing on an education programme concentrating on complaints, clinical incidents, audits and mandatory training in order to close loops to provide safe patient focus care. Education strategies have included utilising ex-patients, complaints, relatives, audit results, role play as well as formal training, but always with patient care at the fore front.

Example 6

AW (C2) worked with cardiology services to develop a West Yorkshire-wide primary angioplasty by-pass service with referral direct from paramedics for heart attack patients. West Yorkshire now has complete geographical coverage for the service, referred by Yorkshire paramedics. This is now being extended across the whole of Yorkshire.

A4 First Internal FLP Matrix Ratings

- Example 1** F2 – Multiple patient groups
L1 – Within organisation
P2 – Defined and fairly simple but internal politics (influencing) makes it more complex, therefore 2
- Example 2** F2 – Highlights a possible weakness in the matrix? Rather tenuous link to multiple patient groups. Focus is more on GPs (staff) than on patients. (Do we need a dimension to differentiate staff and patient groups as the focus?)
L2 – Inter-organisational (PCT and GP practices)
P2 – Clear what needs doing; not simple to achieve
- Example 3** F1 – Limited to cleft lip and palate patients
L3 – Across organisations and regions
P3 – Complex with high degree of unknown factors/ uncertainty, hence score 3.
- Example 4** F3 – Applicable to any patient, hence groups not determinable.
L1 – Within Trust
P2 – Several complex strands of work, but all definable (less ambiguous process than example 3? – but more than example 2? Do we need wider rating scale than 1-3?)
- Example 5** F1 – Care of Elderly only
L1 – Within one organisation
P1 – Relatively simple processes
- Example 6** F1 – Single patient group
L3 – Across West Yorkshire
P3 - Complex with high degree of unknown factors / uncertainty, hence score 3.(similar level of process to example 3)

April 2008

A5 Trial Version of VAS Improvement Type Measure – York, June 2008

Evaluating the impact of leadership on NHS Improvement: Developing a Typology for Improvement

Introduction

In evaluating the leadership development programme provided by the Health Foundation, one of the first stages is to classify different ‘types’ of improvement work undertaken by programme participants. The scale below is currently being tested, to assess its reliability in measuring the nature, depth and complexity of different improvement work. Your help with this trial will help us to refine the instrument, so that it can be used as a basis for an Improvement Type Measure. Your contribution will be entirely anonymous, so if you have any additional comments or queries about any aspect of the questions, please do enter them in the boxes provided.

Please read the seven scenarios of improvement provided. For each example, please place a line through each of the scales below where you think the scenario best fits, as shown in the example below. Please then give us a brief explanation of why you have rated it in this way. Please don’t spend too much time on each; the assessment should take no more than a few minutes for each of the scenarios.

EXAMPLE

The improvement is aimed at a defined group of people, less than 20 in number, limited to a single clinical area.



The improvement is intended to benefit unlimited numbers of people in unlimited clinical areas.

Thank you for your help with this trial.

SCENARIO 1 – CHILD AND ADOLESCENT MENTAL HEALTH TRIAGE SYSTEM

1. *Target Group affected by the improvement*

The improvement is aimed at a defined group of people, less than 20 in number, limited to a single clinical area.

The improvement is intended to benefit unlimited numbers of people in a number of clinical areas.

Rationale for this rating:

2. *Organisational level of the improvement*

The improvement is focused within a single ward, department or general practice.

The improvement covers several national and/or international bodies or organisations.

Rationale for this rating:

3. *Type of change*

The change involves small improvements to existing practices.

The change is entirely innovative, involving completely novel ways of doing or thinking about things.

Rationale for this rating:

4. Scale of change

The improvement involves one or two straightforward changes



The improvement involves so much change it is impossible to quantify.

Rationale for this rating:

5. Stakeholders

The improvement involves influencing one or two specific people who support the change.



The improvement involves such a diverse range of resistant people, it is impossible to define them all.

Rationale for this rating:

6. Reason for the improvement

The improvement is only being made because of an imposed imperative.



The improvement is proactive, without any external requirements to do it, entirely because those involved believe it to be important.

Rationale for this rating:

7. *Intended Impact*

The improvement will significantly affect the direct experience of those people using services and improve their health and wellbeing.



The impact of the improvement will be indirect, and hence not be evident in the patient experience in a tangible way.

Rationale for this rating:

Any other comments about how easy / hard it was to rate this scenario:

(Questions repeated for 6 more scenarios)

Thank you for your help with trialing this methodology. If you have any queries or comments about any aspect of our work, please contact the ORCNI team on Jeanne.Hardacre@orcni.com

A6 Examples of Improvements for ITM Testing

- i To address the increasing demand on Child and Adolescent Mental Health Services [CAMHS] and improve timely access to the service. To be achieved through the introduction of a triage or brief assessment system for the CAMHS team and to evaluate its impact on referral rates, waiting times for first appointment and the nature of cases first referred to a specialist CAMHS service. The project includes the evaluation of how the team accepts and operates the system of change.
- ii To explore how children (aged 5-12) experience community children's nursing services and the factors that shape the experience, including gender, ethnicity and social position. To seek to understand the implications for the CCN services of a child-centred view, by asking children what they want and expect from being nursed at home.
- iii Reducing Clostridium Difficile rates within an acute Trust. This included developing antibiotic procedures across the Trust, a training programme for all staff within the division and a Ward Managers' Environmental Checklist to strengthen their accountability for the care environment. Also required the setting-up and overseeing the formation of an isolation facility.
- iv Leading the development of a new county-wide Cleft Lip & Palate Network. This provided rapid and continued local support on the birth of a baby with a cleft via a Network-wide nurse-led and provided on-call service, covering all new referrals to the service. This ensured that all newborns and their parents were assessed and counselled by a specialist nurse within 24 hours of diagnosis.
- v To assess how hospital payment systems are evolving in the US to improve integration across the health system, and to learn lessons for UK policy.
- vi To deal with increasing demand for cataract surgery in a District General Hospital. To facilitate the change, cataract services were redesigned to increase throughput and reduce waiting times, while assessing and preserving the quality of patient care. A secondary end point was to maintain surgical caseload mix, thus allowing trainees to continue to fulfil the number and type of operations required to acquire higher surgical training standards, as per the Royal College of Ophthalmologists' guidelines.
- vii To develop a core set of High Impact Safety Changes based on US best practice, which could be implemented through a national target system and enable the UK's NHS to engage clinicians in the patient safety agenda.

A7 Three Detailed Examples for 2nd ITM Trial – July 2008

SCENARIO 1 – Cleft Lip and Palate Network

The aim of this improvement was to develop an improved, equitable, sustainable, high quality Cleft Lip & Palate Network throughout the North West region, Isle of Man & North Wales. Patient feedback and clinical outcome data had provided evidence of a need for the service to be improved. The development of the Network has improved access to multi-disciplinary services (addressing waiting time targets) and enhanced the quality of the service by ensuring that all patients are now operated on by high volume surgeons.

£1,050,000 recurrent new resource has been provided for the Network. This has been used principally to increase staffing, and to create new roles, including a new key surgical post. These new staffing arrangements improve initial contact for patients and families, and provide local support and services for families through outreach. This increases the time available to clinicians for patient consultation and treatment and improves the co-ordination of services.

A Network-wide nurse-led on-call service has been introduced, covering all new referrals to the service, throughout the large geographic area covered. This significant development ensures that all 'newborns' and their parents are assessed and counselled by a specialist nurse within 24 hours of diagnosis, which was not previously possible. The service also provides antenatal, postnatal support and treatment wherever a cleft lip and/or palate is diagnosed. The service includes visits to the patient's local hospital and home.

Following surgery to repair the cleft lip and/or palate, ongoing care for children, young people and adults with cleft lip and/or palate is provided by a multidisciplinary team which may include the following and other specialists: Specialist Nurses, Speech and Language Therapists, Clinical Psychologists, Consultant Orthodontists, Consultants in Restorative Dentistry and Geneticists.

A service specification and surgical model for the new service, focused on patients with cleft lip / palate, were negotiated and agreed with colleagues and specialised commissioners. It has been important that the new surgical model is viewed as 'fair', to ensure that the Network has sustained support from all those involved. Although the process of agreeing a 'fair' surgical model was difficult, now that it has been agreed there is much more unity about the direction for the Network, and trust is being rebuilt. Successful whole Network workshops (5 so far) and social events are also contributing to the reality of a single network team. Considerable efforts by the Network Clinical Director and the Network Manager, in spending time in all the surgical and outreach centres is also helping to develop working relationships, as is the 'rotation' throughout the region of the Network management meetings (around 30 so far).

The views of patients and families have been sought using a questionnaire regarding their involvement with the management of the service. This has been followed by an initial meeting (attended by around 70 patients/carers) to explore this and other issues further. The Network is in the process of seeking views about the service provided by means of a service evaluation questionnaire.

Mechanisms are in place to measure some early indicators of improvement – although it will take many years before the more significant treatment outcomes will be able to be assessed meaningfully.

SCENARIO 2 – High Impact Safety Changes

This was a proposal put forward by one of the Harkness Fellows as the basis of their year long research project; the details have been filled in for the purposes of this exercise, and do not necessarily reflect the original project aspirations.

“To develop a core set of High Impact Safety Changes (HISC) based on US best practice, which could be implemented through a national target system and enable the UK’s NHS to engage clinicians in the patient safety agenda.”

The Fellow’s approach was triphasic. The first part was to carry out a literature review of published articles about improving patient safety, with a particular emphasis on hospitals that had published work about their projects, and the results obtained from implementing them. The Fellow was looking for results that could be quantified in a number of different ways: absolute outcomes (i.e. physical issues such as infection, readmission, and even mortality), a measure of how patients perceived their experience, and any discussion regarding the cost benefits of introducing the changes made to enhance patient safety.

Using the list generated, the researcher then expected to move into the second phase of her work: she intended to visit a selection of USA hospitals whose projects had been successful, in order to explore in more detail the initiatives that had been carried out. She expected to look at projects in three areas, and choose one in each as exemplars: acute urgent care (the treatment of deep vein thrombosis), elective procedures (knee replacement), and acute non-urgent process (post stroke rehabilitation), in order to be able to develop her own list of high impact changes.

She then intended to synthesize the conclusions of these successful projects into a framework of high impact safety changes that could be used in any UK hospital, and into which any clinical condition could be fitted. This was an ambitious idea, so on her return to the UK, she was going to restrict the third phase of her project to working with the hospitals in one SHA area, looking at the three identified conditions as pilots for future work.

She hoped to recruit enough interested volunteers amongst the clinical staff of each Trust in her local SHA area to make the introduction of the High Impact Changes practical, although she was sanguine enough to realize that there would be pockets of resistance amongst certain groups of clinicians who would feel threatened by the various changes needed to improve patient safety significantly, whatever they turned out to be.

SCENARIO 3 – the C Difficile problem

The Trust's Clostridium Difficile rates were significantly above average and were causing concern within the SHA. An urgent meeting of the Infection Control Committee was set up and extended to include representatives from all services within the Trust. A review of the existing Trust policy and procedures suggested that although sound in principle, they were manifestly not achieving the desired goals and there was an obvious failure of implementation.

An action plan devised by the team included strict Trust-wide guidelines on the use of antibiotics and a mandatory (no exceptions) training programme for all staff. A Ward Managers' Environmental Checklist was established to strengthen their direct accountability for the care environment. Milestone measures to monitor implementation were introduced with immediate feedback protocols if targets were not met. Month on month targets for reducing C Diff rates were agreed and Patient Representatives were consulted about how education and better information could allow patients and visitors to support the action.

Perhaps the most challenging proposal was the creation of isolation facilities requiring both senior clinicians and services to agree to procedures that might jeopardise their own targets.

Members of the Committee were allocated specific roles and asked to report back to a sub-committee on a weekly basis.

A8 2nd Trial Version ITM, July 2008

Stage A: Developing a Typology for Improvement

Introduction

In evaluating the Leadership Programme provided by the Health Foundation, one of the first stages is to classify different 'types' of improvement work undertaken by programme participants. The scale below is currently being tested, to assess its reliability in measuring the nature, depth and complexity of different improvement work. Your help with this trial will help us to refine the instrument, so that it can be used as a basis for a Typology of Improvement. Your contribution will be entirely anonymous, so if you have any additional comments or queries about any aspect of the questions, please do enter them in the areas provided.

Please read the three improvement example provided. For each example, please place a vertical line through each of the scales below where you think the improvement best fits, as shown in the example below. Please then give us a brief explanation of why you have rated it in this way. Please don't spend too much time on each; the assessment should take no more than a few minutes for each of the scenarios.

EXAMPLE

The improvement is aimed at a defined group of people, limited to a single clinical area.



The improvement is intended to benefit unlimited numbers of people in unlimited clinical areas.

Thank you for your help with this trial.

SCENARIO 1 – CLEFT LIP AND PALATE NETWORK

1. *Target Group affected by the improvement*

The improvement is aimed at a defined group of people, limited to a single clinical area.



The improvement is intended to benefit unlimited numbers of people in unlimited clinical areas.

Rationale for this rating:

2. *Health Outcome*

The improvement will directly improve the health and wellbeing of service users.



The improvement will make little or no direct difference to the health and wellbeing of service users.

Rationale for this rating:

3. *Patient Impact*

The improvement will positively transform the direct experience of those people using services.



The improvement will have little or no direct impact on the patient experience.

Rationale for this rating:

4. Organisational level of the improvement

The improvement is focused within a single ward, department or general practice.	→	The improvement covers several national and/or international bodies or organisations.
--	---	---

Rationale for this rating:

5. Type of change

The change involves small improvements to existing practices.	→	The change is entirely innovative, involving completely novel ways of doing or thinking about things.
---	---	---

Rationale for this rating:

6. Scale of change

The improvement involves one or two straightforward changes.	→	The improvement involves so much change, it is virtually impossible to specify.
--	---	---

Rationale for this rating:

7. Range of Stakeholders

The improvement involves influencing one or two specific people.



The improvement involves influencing such a diverse range of people, it is virtually impossible to define them all.

Rationale for this rating:

8. Influencing

The influencing involved in the improvement is extremely easy.



The influencing involved in the improvement is as complex and difficult as it could possibly be.

Rationale for this rating:

9. Reason for the improvement

The improvement is entirely in response to an imposed imperative.

The improvement is entirely because those involved believe it to be important.

Rationale for this rating:

Any comments about how easy / hard it was to rate this example :

Any comments about any part of any of the scenarios or of the process itself:

THANK YOU FOR YOUR HELP WITH THIS TRIAL.

A9 Final SSI Schedule

Final Version 23/02/09

The Health Foundation / ORCNI

Leadership Programme Evaluation : Semi Structured interviews

NAME: _____

JOB TITLE: _____

ORGANISATION : _____

THF SCHEME and DATES: _____

INTERVIEWED BY: _____

DATE: _____

Opening comments

- o Introduce researchers
- o Purpose of study
- o Reason for the pilot
- o Stages of the interview: i) biographical ii) type of work iii) leadership enactment
- o Confidentiality and use of data
- o Permission to record and transcribe
- o Timings – c. 90 minutes

SUMMARY

Typology

F _____

L _____

P _____

I _____

Brief 'improvement' description:

Key Leadership behaviours

SECTION A. **Biographical details**

Ai) Main job responsibilities – now and during scheme

Aii) Changes to job during scheme / since the scheme / into the future

B. SECTION B Type of Improvement Work

Please tell us about any improvements to services you have been involved with during the past year.

- Why did it come about?
- What was the aim? (intended change, desired impact)
- Timescale?

From the respondent's description, note below the details of the target group and the level of the improvement work

FOCUS

1. Target Group :

LEVEL

2. Level

NB: May need to summarise – 'e.g. so, do I understand correctly that this piece of work focused on all women treated within the Women and Children's directorate, and also involved community services?'

PROCESS

3. Type of change – Can you please describe the sorts of changes involved?

4. Scale of change

Note here details – eg. small changes to existing practices or innovative new thinking?

5. Range of stakeholders – Who were the key people involved in the work? How were they involved?

6. Influencing – How did you work with others to achieve your aims?

IMPACT

7. Health outcome – What would you say the main outcomes to the work have been? (probe: Have any of these been health outcomes?)

8. Patient experience – To what extent would you say the work has had an impact on the patient experience?

(probe: What sort of impact? How do you know? How would a service user's experience be different after the change?)

9. Sustainability – How do you envisage the future of this improvement work? Probe: how much is the change dependent on you or other individuals?)

C. Leadership Enactment

We are seeking to understand the activities with which you were personally involved in undertaking these changes.

We would like to talk this through sequentially and trace each step, occasionally asking for more detail or clarifying how your role may have linked to others. There is no sense of testing you or an expected right way – we just want to understand as far as possible what was involved.

To start, what was the first step in your involvement in the improvement work?

Leadership Enactment (continued)

THANK YOU FOR YOUR COOPERATION

A10 Email Notification of Semi-Structured Interviews

26th November 2008

Dear

As a former or current award holder, earlier this year you will have received an email giving you information about a major evaluation of the various leadership schemes we currently provide. Findings from this important evaluation will serve to build the evidence base linking leadership development to quality improvement, and support the design of future leadership award schemes funded by The Health Foundation.

We need all of our former and current award holders to participate in the evaluation in order to ensure the study is robust and to maximise the value of our learning for the success of future schemes.

The evaluation is being undertaken by ORCNI Ltd. In the next few days you may be contacted by one of the researchers - Hugh Flanagan, Jeanne Hardacre, Peter Spurgeon, Jonathan Shapiro - to ask you to take part in the current phase of one-to-one interviews. These interviews are being conducted with a sample of participants.

The Health Foundation would be grateful if you would be as flexible as possible in making yourself available to meet with the ORCNI team and to respond positively to any future contacts.

With thanks for your help and cooperation

Best wishes



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A11 Email Request to Potential Interviewees

20th January 2009

Dear

As you will be aware from previous emails from Hugh Flanagan, ORCNI Ltd. is undertaking an extensive evaluation of the Health Foundation Leadership Programme.

As one of the evaluation team, I should like to arrange to interview you as one part of the data collection for this work. The evaluation is a long-term study which commenced in April 2008 and runs to early 2010. It has a number of stages and this stage you are being approached about now, is as part of a sample from across all the schemes. We are asking for your cooperation in taking part in an interview which will last up to 90 minutes. I should make it clear that we are not in any way evaluating you and your work but the schemes and their outcomes. No preparation is required by you.

I have the following dates scheduled for interviews:

Mon 9th Feb, Tues 10th Feb, Weds 11th Feb, Tues 24th Feb, Weds 25th Feb

Mon 2nd March, Tues 3rd March, Weds 4th March, Mon 9th March, Tues 10th March, Weds 11th March, Mon 23rd March, Tues 24th March, Weds 25th March, Mon 30th March

Weds 1 April, Mon 20th April, Tues 21st April, Weds 22nd April, Mon 27th April

I shall carry out the interview at your place of work unless you would prefer to be interviewed away from your work situation. The feedback we have had so far from the interviewees in the pilot stage suggests that the interview is both interesting and useful for reflecting on learning and 'taking stock'. Could you please let me know as soon as possible - by email or on my mobile number below - on which dates you would be available help?

With thanks and best wishes,

Jeanne Hardacre

on behalf of ORCNI Ltd.

m: 07968 196286

jeanne.hardacre@orcni.com

A12 Comparison of Leadership Frameworks and Models in use in the NHS

Comparing a selection of Leadership Frameworks & Models currently in use across the NHS

Criteria	Leadership Qualities Framework (LQF) & LQF 360 Tool	Medical Leadership Competency Framework (MLCF)	Knowledge & Skills Framework (KSF)	World Class Commissioning Competencies (WCC)	Foundation Trust Competencies
Suitable for all Leaders across the NHS	✓	X	X	X	X
Suitable for Individual Development	✓	✓	✓	✓ (if adapted)	✓
Supports Team Development	✓	X	X	?	✓
Appropriate for Board Development	✓	X	X	X	✓ (in Foundation Trusts)
Suitable for use in recruitment & selection	✓	✓	✓	✓	✓
Ability to compare with a large NHS population	✓	X	✓	X	X
Diagnostic Tools Available	✓	✓	✓	✓	✓
NHS Institute's Viewpoint	<p>The NHS Institute for Innovation and Improvement recommends the Leadership Qualities Framework as the leadership framework of choice within the NHS. It was exclusively designed for leaders within the NHS and is based on in-depth research conducted within the Service (see separate document). The framework has been widely used since 2002 providing a common language and approach to leadership across the NHS. Over 180,000 employees have had direct exposure to the LQF in its various forms since its launch.</p> <p>Ongoing feedback from end users reinforces its appropriateness as the platform for increasing leadership standards within the NHS. Reviews of the LQF have been carried out over the years and regular research supports the robustness of the framework.</p>				

Source: NHS Institute of Innovation and Improvement (2011b)

A13 Indicators of Quality Leadership (IQL) Framework



Indicators of Quality Leadership (IQL ©)

Competency Area 1: Interacts Authentically

a) Seeks, understands and values the viewpoint of others

- i. Solicits all points of view and uses these perspectives to build consensus
- ii. Regularly initiates discussion and facilitates open sharing of opinions
- iii. Harnesses different opinions and capitalises on the benefits of diversity
- iv. Takes other people's perceptions seriously and empathises with their feelings
- v. Encourages the differing and preferred working styles of individuals

b) Understands personal impact and influence on others

- i. Anticipates how other parties may react to the content of personal communication
- ii. Makes convincing and balanced arguments, tailored to others' needs and expectations
- iii. Takes account of others' reactions re: tones of voice, gestures and facial expressions
- iv. Monitors others' understanding of what is discussed and corrects misunderstandings
- v. Interprets the face-to-face impact of own conduct on others' behaviour and responses

c) Values the skills and expertise of others

- i. Capitalises on the range of skills and talents present in the organisation
- ii. Identifies and nurtures talent to build capacity and capability
- iii. Offers support, rewards achievements and celebrates success
- iv. Gives clear constructive feedback, timely praise and focused recognition
- v. Delegates work to provide challenge and opportunities to learn and develop

d) Creates networks for the creation and sharing of ideas

- i. Identifies and consults with key stakeholders to obtain buy-in for ideas
 - ii. Build and enthuses a wide base of support for innovation and change
 - iii. Develops and sustains a diverse range of internal and external relationships
 - iv. Invests time to establish, sustain and broaden information and intelligence networks
 - v. Engages the support and allegiance of informal networks in formal situations
-

e) Builds structures that facilitate co-operation and collaboration

- i. Sets up and maintains open communication channels to promotes information exchange
 - ii. Facilitates cooperation within and between organisations by sharing information
 - iii. Implements a range of formal and informal team-building development activities
 - iv. Establishes cross-agency working and encourages collaborative partnerships
 - v. Develops cooperation and teamwork by encouraging key stakeholders to work together
-

f) Creates strategies to influence others through persuasive reasoning

- i. Constructs persuasive arguments to facilitate the acceptance and adoption of change
 - ii. Conveys his/her position convincingly even when faced with strong opposition
 - iii. Uses influence and persuasive skills to involve, engage and gain others' support
 - iv. Helps others create their own solutions to facilitate ownership and commitment
 - v. Provides clear, constructive and timely guidance to shape others behaviour
-

g) Builds confidence and trust in others

- i. Anticipates dissent and uses appropriate strategies to resolve conflict when it arises
 - ii. Asks open-ended questions that encourage authentic and honest communication
 - iii. Shows trust and confidence in staff by acknowledging their effort and contribution
 - iv. Demonstrates honesty in interactions by matching deeds to words
 - v. Listens carefully to others to gain a real insight into their issues and concerns
-

h) Empowers others to inspire and create commitment

- i. Explains the need for change and inspires commitment to the process
 - ii. Communicates a common compelling vision for the future organisation
 - iii. Demonstrates commitment to innovation and to continuous improvement
 - iv. Presents as a role model of creativity, innovation, and learning
 - v. Ensures organization has a culture of promoting commitment and engagement
-

i) Communicates in a clear and compelling way

- i. Delivers messages in a clear, concise and articulate manner without using jargon
 - ii. Creates meaning for the audience by using events and stories to illustrate key points
 - iii. Uses anecdotes and analogies to illustrate ideas and bring messages to life.
 - iv. Pitches messages to focuses on key points and facilitate desired outcomes
 - v. Maximises personal communication strengths whilst minimising weaknesses
-

j) Adapts style of communication to audience

- i. Seeks to understand others' non-verbal cues and adjusts presentation style accordingly
- ii. Anticipates the likely reaction and selects communication style to meet audience needs
- iii. Explains complex information using a level of language appropriate for the audience
- iv. Maintains an awareness of peoples personalities and motivations and adapts to this
- v. Asking clarifying questions and reflects back to ensure message has been understood

Competency Area 2: Acts Effectively

a) Identifies project implications

- i. Specifies the task requirements and identifies the likely outcomes of plans
- ii. Assesses the feasibility and acceptability of translating policies into operational plans
- iii. Takes into account the personal and emotional costs of organisational change to staff
- iv. Determines necessary resources (money, people, and materials) for project success
- v. Makes sense of organisational events by inferring causes and consequences of interventions

b) Specifies roles, tasks, and performance standards

- i. Specifies clear organizational goals, priorities and performance objectives
- ii. Sets performance standards and shows concern that they are met or surpassed
- iii. Conducts regular reviews and constructively addresses under-performance.
- iv. Establishes structures that delineate authority with clear lines of accountability
- v. Holds both self and others accountable for effective delivery of results

c) Aligns people, tasks and resources

- i. Ensures that all organisational sub-systems effectively support the business plan
- ii. Controls projects by ensuring plans, people and resources are appropriately mobilised
- iii. Unites staff around an inspiring vision and aligns staff capacities with planned activities
- iv. Ensures coordination of values, mission, strategy, structure and day-to-day performance
- v. Links achievement of goals with appropriate rewards and recognition

d) Responsive to changing or emerging internal or external context

- i. Initiates organisational responses as required and maintains the pace of change.
- ii. Keeps alert to a wide range of signals that may indicate important shifts in conditions
- iii. Anticipates organisational change and knows when, why and how to adapt quickly
- iv. Understands that the effects of organisational change are both planned and unplanned
- v. Reacts quickly and confidently to contain, control or capitalise on rapidly-changing events

e) Identifies risks and opportunities

- i. Seeks out opportunities to try out new ideas or innovative schemes
- ii. Plans ahead and recognises that services can and should change for the better
- iii. Keeps alert to all possibilities to identify the potential of positive change
- iv. Spots chances and opportunities to apply or transfer innovative practices
- v. Anticipates and reduce risks by knowing organisational strengths and weaknesses

f) Makes important decisions in a timely manner

- i. Identifies and consults with the appropriate key decision makers on emerging issues
- ii. Demonstrates understanding of units/departments and factors this into any decisions
- iii. Anticipates barriers to rapid decision-making and takes steps to remove these
- iv. Selects the best time to announce a decision to maximise positive impact
- v. Draws on own knowledge and experience to make balanced and timely judgments

g) Explores new suggestions and solutions

- i. Encourages others to produce novel suggestions and solutions to organisational problems
- ii. Analyses the future potential of new schemes to improve work practices and services
- iii. Encourages novel approaches which have the promise to deliver improved outcomes
- iv. Generates creative and valuable suggestions with the potential to improve service delivery
- v. Envisions the ways in which potential innovations may influence current working practices

h) Tolerates ambiguity to promote creative solutions

- i. Prefers to promote promising initiatives and approaches rather than maintain the status-quo
- ii. Encourages others not to reject new ideas because their benefits may not be immediate
- iii. Explores imaginative solutions and considers new approaches to enhance effectiveness
- iv. Pursues worthwhile new initiatives even when there is ambiguity and uncertainty
- v. Challenges accepted behaviour and pushes forward even under difficult circumstances

Competency Area 3: Conceptualises Issues

a) Articulates and formulates key issues clearly

- i. Identifies staff attitudes, concerns and opinions relevant to the issue at hand
 - ii. Disentangles the fundamental reasons and root causes of organisational problems
 - iii. Identifies the specific information needed to solve a problem efficiently
 - iv. Prioritises important issues and tease-out the dependencies between them
 - v. Maintains up-to-date knowledge about the organisational structures and processes
-

b) Structures, analyses and integrates "hard" and "soft" data

- i. Transforms available data into meaningful information to inform and illuminate
 - ii. Blends and integrates disparate types of 'hard' evidence and 'soft' intuition
 - iii. Uses experience, logic and empathy to derive acceptable and cost-effective solutions
 - iv. Explores the underlying meaning behind incomplete and ambiguous staff feelings
 - v. Balances the productivity, needs and demands of different parts of the organisation
-

c) Manipulates complex facts and opinions

- i. Thinks flexibly and creatively under rapidly evolving or unexpected circumstances
 - ii. Derives new ideas and innovative strategies within a useful time scale
 - iii. Pinpoints critical factors to explain the meaning and implication of events
 - iv. Grasps the evolving and overlapping patterns of complex events as they unfold
 - v. Shifts perspectives and focus to deal with concerns from various stakeholders
-

d) Creates clarity from diverse perspectives

- i. Structures loose 'threads' of ideas and opinions into coherent explanations
 - ii. Clarifies problems by actively examining relationships between components
 - iii. Produces focused suggestions and strategies from dissonant viewpoints
 - iv. Assembles a rich 'picture' through discussion with diverse members of staff
 - v. Discerns organisational risks and opportunities from a complex set of factors
-

e) Evaluates options to create powerful decisions

- i. Prioritises and weighs up the pros and cons of situations to make good decisions
- ii. Distinguishes key priorities from supporting or peripheral sub-priorities
- iii. Focuses on all critical factors including hard-to-measure emotional issues

- iv. Probes staff reactions to proposed alternative options and decisions
 - v. Considers the organization's priorities when making decisions or suggesting solutions
-

f) Identifies the links between the wider system and its components

- i. Takes a 'helicopter view' of the system to oversee both short and longer-term issues
 - ii. Assesses whether the local picture is aligned to and supports the wider vision of change
 - iii. Examines how the values of various staff groups fit within the organisational mission
 - iv. Ensures that local operational goals support the organisational strategy mission and vision
 - v. Highlights key priorities for action by understanding where the future organisation should be
-

A14 Example Section of Coded Interview Transcript

Interview with ID ***

(cont...)

JH: So during your time on Leaders for Change, then, what...was there a particular piece of work that you put energy into in terms of improvement?

ID: So what I did — I mean this is a project that's still in use. What I did is I chose a small pathology patient, somebody who had a little problem and I literally begged the theatre, begged the ward nurses to get it done that day afternoon. So we do the clinic in the morning and theatres in the afternoon. So I said I have a patient right now, it is *not* an urgent or an important, you know, it's not an emergency problem but I want to do this patient this afternoon, just one case.

1d v

3b ii

So we did that. I immediately called a few managers, you know, the service managers and the nurse managers and asked them to interview the patient about what their expectations were and whether their expectations were met or not by this time of shortcut, rapid method.

JH: But presumably the patient didn't know she was going to be subjected to anything different.

ID: No, the patient thought it was going to be done this afternoon or straightaway. The patient did not realise that normally they would go on a waiting list, unless you tell them. So, I mean it was kind of genuinely a small problem, you know, four/five minutes, a local anaesthetic, and done!

JH: So, how difficult would you say it has been to actually influence all the stakeholders? It sounds as if some were easier than others.

ID: Absolutely. I think a lot runs on personal relationships, a lot runs on contacts... I mean, you wouldn't expect the NHS to run like that because it's a government formal system, but its true, you know. For instance, two tries at the patient admin 'choose and book' computer systems just didn't work at all. They sat and listened to me in great appreciation but it still didn't happen. Then, when we are going on digging on, you know, which person is actually capable of doing it, we found a lady who was one of our secretaries in the past — for me and my boss — and then we rang her and said, you know, this is what we want to do and she was like 'yeah, what's the problem, I'll do it'. So in about three week's time she took the initiative and she was

1d v

hounding us for information about the inclusion/exclusions and all that ,and that was on.

ID: So, you know, a lot of it depends on relationships. A lot of it also depended for NHS non-medical staff, non-doctors. It depended on a fairly emotional argument. I would go to a resistant nurse — and there were a few — I would go up to them and say: ‘If you had varicose veins, and if you had a choice, and if you wanted it done the same day, if somebody were to stop you, how would you feel about that?’ Or I would also say, ‘If you had your dad or granddad aged 85 wanting to have a hernia done and was made to come to the hospital six times on the pretext of ECG, blood tests, Wafarin control, whatever, whereas it can be done in one day, safely, you know, almost assured safety, what would you feel about that and would you like it that way?’ And most of the time they reflect on it and they use what I recently learnt as ‘deficit thinking’. You know, what are the problems with that? But then they eventually come back and say, ‘Yeah, okay, if you can do it safely that’s the way we want it’.

1f ii So that’s for non-doctor NHS clinical staff that works, theatre people, nurses. For non-clinical... for the managerial staff its *absolutely* the financial argument. You know, you have to use different arguments for different people. For service managers, business managers and finance managers its like ‘this is the pathway, my calculation is that it saves somewhere between £350-500 per patient for you, and about £50-75 for the PCT — because we don’t follow up. So, and they said can you prove it? Is it nominal or is it actual? Which bed do we close, which light bulb...?’ I said ‘That’s not up to me, that’s up to you to decide where, you know, whether you want to remove a bed and sack the nurse, or you want to fill that up with another patient of some other sort. You’re going to get more business.’

But, you know, they looked at it really carefully. In fact, then they unofficially said that my estimates were actually very conservative; we actually saved a fair bit more money than that.

For the performance staff it’s the argument about delivering what they would normally deliver on the 16th or 17th week, because your toe nails and your lumps and bumps and hernias don’t get priority, they get put off till the 17th week when your cancers and aneurisms are done.

JH: Yeah.

ID: I said: 'Okay, but those are the ones which you get penalised for, if you breach them, you know, the SHA or the PCT or somebody is going to give you the stick.' So they at least can be done quite simply at a cheaper cost, which is none of their botheration, within three weeks. And the future is that, you know, if we had enough demand, we'll open another day like that. Right now we're doing one day.

1i ii

(cont)

A15 Example of Summary Document for an Interviewee's IQL Behavioural Data

Behavioural data summary from SSI interview transcript (ID 06)

LEADERSHIP BEHAVIOURAL DATA

1: Interacts Authentically

a) Seeks, understands and values the viewpoint of others

No data

b) Understands personal impact and influence on others

No data

c) Values the skills and expertise of others

But if any of our junior staff wants to write and publish it they'll have my full support.

v) I now, not regularly, because of the leave and I'm not too regular myself these days, but I do get a fairly experienced person and many times I just stand back and watch these relatively young doctors running the system. And it is a great boost to their confidence that they can run the system, and just my experience alone doesn't matter. It goes to show that anyone can run the system. They have, you know, two good years of surgical experience. I mean, they can do a hernia, they don't have to follow-up their patients and the patients do well [39:34]. So it really boosts their confidence.

iii) is I share my data; anybody who wants to study this process and write about it. And there is one or two other fairly special things that we are doing, like this one-stop. But I share that as well, you know. If you want to study it and do an audit or do a post or do a publication, you want to include my name/don't want to include my name; I really don't care, go and do it.

iii) What I mean by that is this project in my hospital, I would never call it *my* project, it always goes in at least three names: two consultants and me. For example, local radio and our Trust has a link up, and when they want to speak about one-stop surgery I don't grab all the chance often even though I run that service, there's an anaesthetist who goes, there's a service manager who goes, you know.

d) Creates networks for the creation and sharing of ideas

v) What I did is I chose a small pathology patient, somebody who had a little problem and literally begged the theatre, begged the ward nurses to get it done that day afternoon. So we do the clinic in the morning and theatres in the afternoon. So I said I have a patient right now, it is not an urgent or an important, you know, it's not an emergency problem but I want to do this patient this afternoon, just one case.

iii) I would send off... absolutely send of an email to anyone about stuff that I do, whether they respond/don't respond whatever, and I will always look for opportunities — can I come and explain this to you, can I come and talk to your forum, can I come and do this, can I do this presentation?

So, you see, I keep my exposure level fairly high, there is another reason I do that, you know. The thing is I use my exposure as a measure of transparency because nobody is going to turn around and say you did this without permission because they already knew it. So I use that for a defensive purpose as well. But the positive purposes, I go out there and look for these opportunities. A lot of people don't like to do that, a lot of people hate me for doing that, but I go out there and push myself out there, keep my head above the wall, you know, say 'yeah, this is what I'm doing' and I'm willing to talk about it.

e) Builds structures that facilitate co-operation and collaboration

f) Creates strategies to influence others through persuasive reasoning

ii) I would go to a resistant nurse — and there were a few — I would go up to them and say: 'If you had varicose veins, and if you had a choice, and if you wanted it done the same day, if somebody were to stop you, how would you feel about that?' Or I would also say, 'If you had your dad or granddad aged 85 wanting to have a hernia done and was made to come to the hospital six times on the pretext of ECG, blood tests, Wafarin control, whatever, whereas it can be done in one day, safely, you know, almost assured safety, what would you feel about that and would you like it that way?' And most of the time they reflect on it and they use what I recently learnt as 'deficit thinking'. You know, what are the problems with that? But then they eventually come back and say, 'Yeah, okay, if you can do it safely that's the way we want it'.

iii) So you go and give the relevant arguments for relevant people and if you go and speak about finance to doctors and nurses, they hate it, so they turn around and say 'well if you're doing this for saving the money, we're not being any part of it' and whatever, you know, this is the wrong approach and they'll find even stronger arguments not to do it. So it's a different chapter of the book for every person.

g) Builds confidence and trust in others

No data

h) Empowers others to inspire and create commitment

iv) So, I had no authority... I had no hierarchical power, I had, you know, I mean in an academic sense I had no power of punishment, I had now power of reward, and I had no designation, no title to go with it. So it was a kind of personal power, personal impact, and that's in terms of academic leadership things

So that's the sort of skill, you know, doing, leading by doing,

i) Communicates in a clear and compelling way

ii) I said: 'Okay, but those are the ones which you get penalised for, if you breach them, you know, the SHA or the PCT or somebody is going to give you the stick.' So they at least can be done quite simply at a cheaper cost, which is none of their botheration, within three weeks.

j) Adapts style of communication to audience

ii) For non-clinical... for the managerial staff its *absolutely* the financial argument. You know, you have to use different arguments for different people. For service managers, business managers and finance managers it's like 'this is the pathway, my calculation is that it saves somewhere between £350-500 per patient for you, and about £50-75 for the PCT.

2: Acts Effectively

a) Identifies project implications

No data

b) Specifies roles, tasks, and performance standards

No data

c) Aligns people, tasks and resources

No data

d) Responsive to changing or emerging internal or external context

No data

e) Identifies risks and opportunities

No data

f) Makes important decisions in a timely manner

No data

g) Explores new suggestions and solutions

No data

h) Tolerates ambiguity to promote creative solutions

i) I think every time and go and interact with the wider world my conviction grows but my flexibility is also growing. That doesn't mean I won't push things forward, I won't...I still won't take no for an answer, but I can... I can turn around those no's, I mean there is a capital 'NO' and a small 'no', you know, I can turn that from a capital NO to a small no perhaps, you know.

3: Conceptualises Issues

a) Articulates and formulates key issues clearly

No data

b) Structures, analyses and integrates "hard" and "soft" data

ii) I immediately called a few managers, you know, the service managers and the nurse managers and asked them to interview the patient about what their expectations were and whether their expectations were met or not by this time of shortcut, rapid method.

c) Manipulates complex facts and opinions

iii) I'm also aware that when the model is actually worked, when like theoretical paper description of a model is actually worked, it may not actually work. So I want to know whether it works or not.

d) Creates clarity from diverse perspectives

No data

e) Evaluates options to create powerful decisions

No data

f) Identifies the links between the wider system and its components

No data

A16 120 Behavioural Indicators in Rank Order from Q-Sort data analysis

Statement	Rank
12. Identifies and nurtures talent to build capacity and capability	1
11. Capitalises on the range of skills and talents present in the organisation	2
34. Demonstrates honesty in interactions by matching deeds to words	3
36. Explains the need for change and inspires commitment to the process	4
38. Demonstrates commitment to innovation and to continuous improvement	5
63. Unites staff around an inspiring vision and aligns staff capacities with planned activities	6
116. Takes a 'helicopter view' of the system to oversee both short and longer-term issues	7
29. Helps others create their own solutions to facilitate ownership and commitment	8
13. Offers support, rewards achievements and celebrates success	9
14. Gives clear constructive feedback, timely praise and focused recognition	10
16. Identifies and consults with key stakeholders to obtain buy-in for ideas	11
28. Uses influence and persuasive skills to involve, engage and gain others' support	12
37. Communicates a common compelling vision for the future organisation	13
81. Encourages others to produce novel suggestions and solutions to organisational problems	14
90. Challenges accepted behaviour and pushes forward even under difficult circumstances	15
101. Thinks flexibly and creatively under rapidly evolving or unexpected circumstances	16
3. Harnesses different opinions and capitalises on the benefits of diversity	17
33. Shows trust and confidence in staff by acknowledging their effort and contribution	18
60. Holds both self and others accountable for effective delivery of results	19
76. Identifies and consults with the appropriate key decision makers on emerging issues	20
1. Solicits all points of view and uses these perspectives to build consensus	21
2. Regularly initiates discussion and facilitates open sharing of opinions	22
17. Build and enthuses a wide base of support for innovation and change	23
25. Develops cooperation and teamwork by encouraging key stakeholders to work together	24
35. Listens carefully to others to gain a real insight into their issues and concerns	25
39. Presents as a role model of creativity, innovation, and learning	26
72. Plans ahead and recognises that services can and should change for the better	27
74. Spots chances and opportunities to apply or transfer innovative practices	28

A16 - 120 Behavioural Indicators in Rank Order from Q-Sort data analysis

Statement	Rank
83. Encourages novel approaches which have the promise to deliver improved outcomes	29
88. Explores imaginative solutions and considers new approaches to enhance effectiveness	30
120. Highlights key priorities for action by understanding where the future organisation should be	31
26. Constructs persuasive arguments to facilitate the acceptance and adoption of change	32
41. Delivers messages in a clear, concise and articulate manner without using jargon	33
48. Explains complex information using a level of language appropriate for the audience	34
50. Asking clarifying questions and reflects back to ensure message has been understood	35
53. Takes into account the personal and emotional costs of organisational change to staff	36
56. Specifies clear organizational goals, priorities and performance objectives	37
64. Ensures coordination of values, mission, strategy, structure and day-to-day performance	38
4. Takes other people's perceptions seriously and empathises with their feelings	39
15. Participants work to provide challenge and opportunities to learn and develop	40
24. Establishes cross-agency working and encourages collaborative partnerships	41
32. Asks open-ended questions that encourage authentic and honest communication	42
67. Keeps alert to a wide range of signals that may indicate important shifts in conditions	43
68. Anticipates organisational change and knows when, why and how to adapt quickly	44
70. Reacts quickly and confidently to contain, control or capitalise on rapidly-changing events	45
71. Seeks out opportunities to try out new ideas or innovative schemes	46
86. Prefers to promote promising initiatives and approaches rather than maintain the status-quo	47
87. Encourages others not to reject new ideas because their benefits may not be immediate	48
91. Identifies staff attitudes, concerns and opinions relevant to the issue at hand	49
96. Transforms available data into meaningful information to inform and illuminate	50
109. Assembles a rich 'picture' through discussion with diverse members of staff	51
111. Prioritises and weighs up the pros and cons of situations to make good decisions	52
117. Assesses whether the local picture is aligned to and supports the wider vision of change	53
18. Develops and sustains a diverse range of internal and external relationships	54
19. Invests time to establish, sustain and broaden information and intelligence networks	55
27. Conveys his/her position convincingly even when faced with strong opposition	56
31. Anticipates dissent and uses appropriate strategies to resolve conflict when it arises	57
40. Ensures organization has a culture of promoting commitment and engagement	58
42. Creates meaning for the audience by using events and stories to illustrate key points	59

Statement	Rank
54. Determines necessary resources (money, people, and materials) for project success	60
58. Conducts regular reviews and constructively addresses under-performance.	61
65. Links achievement of goals with appropriate rewards and recognition	62
73. Keeps alert to all possibilities to identify the potential of positive change	63
84. Generates creative and valuable suggestions with the potential to improve service delivery	64
85. Envisions the ways in which potential innovations may influence current working practices	65
92. Disentangles the fundamental reasons and root causes of organisational problems	66
115. Considers the organization's priorities when making decisions or suggesting solutions	67
5. Encourages the differing and preferred working styles of individuals	68
6. Anticipates how other parties may react to the content of personal communication	69
8. Takes account of others' reactions re: tones of voice, gestures and facial expressions	70
9. Monitors others' understanding of what is discussed and corrects misunderstandings	71
10. Interprets the face-to-face impact of own conduct on others' behaviour and responses	72
21. Sets up and maintains open communication channels to promotes information exchange	73
43. Uses anecdotes and analogies to illustrate ideas and bring messages to life.	74
75. Anticipates and reduce risks by knowing organisational strengths and weaknesses	75
80. Draws on own knowledge and experience to make balanced and timely judgments	76
82. Analyses the future potential of new schemes to improve work practices and services	77
102. Derives new ideas and innovative strategies within a useful time scale	78
119. Ensures that local operational goals support the organisational strategy mission and vision	79
7. Makes convincing and balanced arguments, tailored to others' needs and expectations	80
22. Facilitates cooperation within and between organisations by sharing information	81
49. Maintains an awareness of peoples personalities and motivations and adapts to this	82
57. Sets performance standards and shows concern that they are met or surpassed	83
78. Anticipates barriers to rapid decision-making and takes steps to remove these	84
94. Prioritises important issues and tease-out the dependencies between them	85
108. Produces focused suggestions and strategies from dissonant viewpoints	86
114. Probes staff reactions to proposed alternative options and decisions	87
30. Provides clear, constructive and timely guidance to shape others behaviour	88
44. Pitches messages to focuses on key points and facilitate desired outcomes	89
47. Anticipates the likely reaction and selects communication style to meet audience needs	90

A16 - 120 Behavioural Indicators in Rank Order from Q-Sort data analysis

Statement	Rank
69. Understands that the effects of organisational change are both planned and unplanned	91
93. Identifies the specific information needed to solve a problem efficiently	92
95. Maintains up-to-date knowledge about the organisational structures and processes	93
97. Blends and integrates disparate types of 'hard' evidence and 'soft' intuition	94
98. Uses experience, logic and empathy to derive acceptable and cost-effective solutions	95
103. Pinpoints critical factors to explain the meaning and implication of events	96
104. Grasps the evolving and overlapping patterns of complex events as they unfold	97
105. Shifts perspectives and focus to deal with concerns from various stakeholders	98
112. Distinguishes key priorities from supporting or peripheral sub-priorities	99
113. Focuses on all critical factors including hard-to-measure emotional issues	100
45. Maximises personal communication strengths whilst minimising weaknesses	101
46. Seeks to understand others' non-verbal cues and adjusts presentation style accordingly	102
51. Specifies the task requirements and identifies the likely outcomes of plans	103
59. Establishes structures that delineate authority with clear lines of accountability	104
107. Clarifies problems by actively examining relationships between components	105
110. Discerns organisational risks and opportunities from a complex set of factors	106
52. Assesses the feasibility and acceptability of translating policies into operational plans	107
66. Initiates organisational responses as required and maintains the pace of change.	108
77. Demonstrates understanding of units/departments and factors this into any decisions	109
118. Examines how the values of various staff groups fit within the organisational mission	110
20. Engages the support and allegiance of informal networks in formal situations	111
23. Implements a range of formal and informal team-building development activities	112
79. Selects the best time to announce a decision to maximise positive impact	113
89. Pursues worthwhile new initiatives even when there is ambiguity and uncertainty	114
100. Balances the productivity, needs and demands of different parts of the organisation	115
106. Structures loose 'threads' of ideas and opinions into coherent explanations	116
62. Controls projects by ensuring plans, people and resources are appropriately mobilised	117
99. Explores the underlying meaning behind incomplete and ambiguous staff feelings	118
61. Ensures that all organisational sub-systems effectively support the business plan	119
55. Makes sense of organisational events by inferring causes and consequences of interventions	120

A17 Full dataset for correlation analysis between improvement type and leadership behaviours

ID	Interacts Authentically										Acts Effectively								Conceptualises Issues							Authentic	Action	Concept	Rating
	a	b	c	d	e	f	g	h	i	j	a	b	c	d	e	f	g	h	a	b	c	d	e	f	ALL				
1	1	0	0	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	8	6	0	2	1121
2	0	0	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	7	4	1	2	1221
3	0	0	0	1	2	1	0	2	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	8	6	2	0	1234
4	0	0	1	0	0	1	2	0	0	0	0	3	0	0	0	1	0	4	1	0	0	0	0	0	13	4	8	1	1332
5	1	0	2	0	0	3	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2	1	15	12	0	3	2242
6	0	1	0	1	2	3	1	0	1	1	1	1	0	0	1	0	1	0	1	0	0	1	0	1	17	10	4	3	2244
7	0	0	4	2	0	2	0	1	1	1	0	0	0	0	0	0	0	1	0	1	1	0	0	0	14	11	1	2	2344
8	1	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	2	0	0	0	0	0	1	7	3	3	1	2445
9	0	0	2	1	0	0	0	1	0	0	0	0	0	0	1	1	0	2	0	1	0	0	0	0	9	4	4	1	2446
10	1	0	5	2	1	2	2	1	1	1	1	3	1	0	1	0	1	1	2	0	0	0	3	0	29	16	8	5	3334
11	3	1	2	0	1	0	0	0	0	0	1	1	0	0	0	0	1	0	0	0	2	2	1	0	15	7	3	5	3335
12	4	1	1	0	0	2	1	0	0	0	0	2	1	0	0	0	1	0	0	0	0	0	0	0	13	9	4	0	3341
13	0	0	0	1	1	1	2	0	0	1	0	0	1	0	0	0	0	0	0	0	1	1	0	0	9	6	1	2	3343
14	2	1	0	0	1	2	3	1	0	3	2	0	0	0	1	1	2	8	1	0	0	0	1	1	30	13	14	3	3452
15	5	2	0	2	1	1	0	0	1	0	3	0	3	1	0	0	0	1	0	3	0	1	0	3	27	12	8	7	3535
16	0	0	2	1	1	2	0	3	2	0	0	2	1	0	0	0	1	1	0	0	0	1	0	1	18	11	5	2	3543
17	3	2	1	0	0	2	0	1	0	1	0	1	0	0	0	0	1	0	0	0	0	1	0	0	13	10	2	1	4346
18	3	0	5	1	1	1	4	0	1	1	0	2	2	0	0	0	1	0	1	0	0	0	0	0	23	17	5	1	4354
19	0	0	0	0	1	0	0	0	2	0	4	0	0	0	1	0	0	3	0	1	0	0	0	1	13	3	8	2	4444
20	4	4	3	3	4	4	4	3	0	1	1	0	0	1	4	1	1	2	1	0	1	2	1	0	45	30	10	5	4455
21	1	0	1	0	1	4	1	4	0	0	0	2	1	1	1	0	0	0	0	0	0	1	1	1	20	12	5	3	4533
22	0	0	2	0	1	1	1	0	0	0	1	1	0	0	0	0	2	0	0	0	0	0	0	0	9	5	4	0	4542
23	2	0	0	1	0	0	0	0	0	1	1	1	1	0	1	0	1	0	0	0	0	0	0	2	11	4	5	2	4542
24	1	0	3	1	0	1	2	0	0	0	1	0	1	0	1	2	2	3	0	0	0	0	0	1	19	8	10	1	4551
25	0	0	2	2	1	1	0	1	0	0	1	1	0	0	0	0	2	2	0	0	0	0	0	0	13	7	6	0	4554
26	1	1	5	1	0	0	3	2	0	2	2	1	1	0	0	0	1	0	0	0	2	1	0	2	25	15	5	5	4554
27	1	1	1	0	0	2	0	0	0	2	0	0	1	0	0	0	0	0	0	1	0	0	0	0	9	7	1	1	4664
28	1	1	1	1	0	2	0	1	1	0	1	0	0	0	0	0	0	3	0	0	1	0	1	2	16	8	4	4	5344
29	3	2	1	2	0	2	4	1	0	5	2	0	0	0	1	3	1	0	2	0	0	1	1	1	32	20	7	5	5354
30	3	0	3	2	4	3	0	0	0	0	3	1	1	0	0	0	1	2	1	0	0	0	0	1	25	15	8	2	5355
31	3	0	2	1	4	3	1	1	0	1	2	2	4	2	2	1	0	1	1	1	1	1	0	1	35	16	14	5	5366
32	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	1	0	1	5421
33	2	0	1	0	1	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	7	5	2	0	5444
34	1	0	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	7	5	0	2	5542
35	0	1	0	1	3	0	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	9	7	1	1	5554
36	0	0	0	0	2	1	0	0	0	0	0	0	0	0	3	0	0	1	0	1	0	0	0	0	8	3	4	1	5554
	48	18	51	32	39	50	34	26	12	22	28	26	19	6	19	10	20	39	12	12	9	14	11	23	580	332	167	81	