Organisational learning and knowledge management in the NHSBT:
An evaluation of the impact a geographically dispersed, multi-functional organisation
has on the ability to learn and share knowledge.

ANDREW MONTGOMERY

Project submitted in part fulfilment of the
Master of Business Administration

Bolton Business School
The University of Bolton - May 2012
## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>List of Tables</strong></td>
<td>v</td>
</tr>
<tr>
<td><strong>List of Figures</strong></td>
<td>v</td>
</tr>
<tr>
<td><strong>Glossary of Terms</strong></td>
<td>vi</td>
</tr>
<tr>
<td><strong>Acknowledgements</strong></td>
<td>vii</td>
</tr>
<tr>
<td><strong>Executive Summary</strong></td>
<td>viii</td>
</tr>
<tr>
<td><strong>Chapter 1: Introduction</strong></td>
<td></td>
</tr>
<tr>
<td>1.1 Organisational Background</td>
<td>1</td>
</tr>
<tr>
<td>1.2 The National Blood Service</td>
<td>2</td>
</tr>
<tr>
<td>1.3 NHS Blood &amp; Transplant</td>
<td>3</td>
</tr>
<tr>
<td>1.4 Regulatory Compliance</td>
<td>4</td>
</tr>
<tr>
<td>1.5 General</td>
<td>5</td>
</tr>
<tr>
<td>1.6 About the Author</td>
<td>6</td>
</tr>
<tr>
<td>1.7 Research Question &amp; Objectives</td>
<td>6</td>
</tr>
<tr>
<td><strong>Chapter 2: Literature Review</strong></td>
<td></td>
</tr>
<tr>
<td>2.1 Organisational Learning</td>
<td>8</td>
</tr>
<tr>
<td>2.2 Knowledge Management</td>
<td>12</td>
</tr>
<tr>
<td>2.3 The Relationship between OL &amp; KM</td>
<td>15</td>
</tr>
<tr>
<td>2.4 Organisational Structure</td>
<td>18</td>
</tr>
<tr>
<td>2.5 Organisational Culture</td>
<td>21</td>
</tr>
<tr>
<td>2.6 Leadership</td>
<td>23</td>
</tr>
<tr>
<td>2.7 Development of a Conceptual Framework</td>
<td>26</td>
</tr>
<tr>
<td><strong>Chapter 3: Research Methodology</strong></td>
<td></td>
</tr>
<tr>
<td>3.1 Research Philosophy</td>
<td>28</td>
</tr>
<tr>
<td>3.2 Positivism</td>
<td>30</td>
</tr>
<tr>
<td>3.3 Interpretivism</td>
<td>31</td>
</tr>
<tr>
<td>3.4 Realism</td>
<td>32</td>
</tr>
<tr>
<td>3.5 Philosophical Position</td>
<td>33</td>
</tr>
<tr>
<td>3.6 Research Strategy</td>
<td>34</td>
</tr>
<tr>
<td>3.7 Research Methodology</td>
<td>35</td>
</tr>
</tbody>
</table>
3.7.1有效性
3.7.2可靠性
3.7.3一般化
3.8数据收集
3.9自我完成问卷
3.9.1试点问卷
3.9.2样本大小
3.9.3返回率
3.10焦点小组访谈
3.10.1样本大小
3.11半结构化访谈
3.11.1样本大小
3.12方法论审查以实现三角化
3.13道德

第4章：研究发现和分析
4.1引言
4.2结构
4.3文化
4.4领导
4.5概念框架的评估

第5章：结论
5.1引言
5.2-5.18结论
5.19进一步研究的领域

第6章：建议
6.1引言
6.2-6.18建议

附录
附录1 NHSBT 地理分布
附录2 组织图：设施北
Appendix 3  NHSBT Organogram  90
Appendix 4  Self-Completion Questionnaire (SCQ)  91
Appendix 5  Demographic Profiles  100
Appendix 6  SCQ Regional Breakdown
   6a  Structure - Objective 1  103
   6b  Culture - Objective 1  104
   6c  Leadership - Objective 1  105
   6d  Structure - Objective 2  106
   6e  Culture: - Objective 2  107
   6f  Leadership - Objective 2  108
   6g  Structure - Objective 3  109
   6h  Culture - Objective 3  110
   6i  Leadership - Objective 3  111
Appendix 7  Focus Group Interview Questions  112
Appendix 8  Semi-Structured Interview Questions  114

Bibliography  116
List of Tables

Table 1 Academic Definitions for Organisational Learning 10
Table 2 Academic Definitions for Learning Organisations 11
Table 3 Academic Definitions for Knowledge Management 13
Table 4 Assumption of the Main Paradigms 29
Table 5 Assumptions on a Continuum of Paradigms 30
Table 6 Distribution of SCQ’s within E&F 40
Table 7 Focus Groups within E&F 43
Table 8 Respondents Identified for SSI’s 46
Table 9 Metaphorical Bridge & Triangulation Methodology 47
Table 10 Key Principles in Research Ethics 48
Table 11 Cross Mapping Matrix 49
Table 12 Structure Objective 1 51
Table 13 Structure Objective 2 53
Table 14 Structure Objective 3 54
Table 15 Culture Objective 1 57
Table 16 Culture Objective 2 59
Table 17 Culture Objective 3 60
Table 18 Leadership Objective 1 64
Table 19 Leadership Objective 2 65
Table 20 Leadership Objective 3 68
Table 21 Implementation Plan 85

List of Figures

Figure 1 The OL & KM Environment 17
Figure 2 Organisational Configurations 19
Figure 3 Conceptual Framework 26
Figure 4 The Continuum of Paradigms 32
Figure 5 Revised Conceptual Framework 71
# Glossary of Terms

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALB</td>
<td>Arms Length Body</td>
</tr>
<tr>
<td>CF</td>
<td>Conceptual Framework</td>
</tr>
<tr>
<td>DoH</td>
<td>Department of Health</td>
</tr>
<tr>
<td>E&amp;F</td>
<td>Estates and Facilities</td>
</tr>
<tr>
<td>EK</td>
<td>Explicit Knowledge</td>
</tr>
<tr>
<td>FGI</td>
<td>Focus Group Interview</td>
</tr>
<tr>
<td>GMP</td>
<td>Good Manufacturing Process</td>
</tr>
<tr>
<td>KM</td>
<td>Knowledge Management</td>
</tr>
<tr>
<td>L&amp;D</td>
<td>Learning and Development</td>
</tr>
<tr>
<td>LO</td>
<td>Learning Organisation</td>
</tr>
<tr>
<td>NHS</td>
<td>National Health Service</td>
</tr>
<tr>
<td>NHSBT</td>
<td>National Health Service: Blood and Transplant</td>
</tr>
<tr>
<td>NBTS</td>
<td>National Blood Transfusion Service</td>
</tr>
<tr>
<td>ODT</td>
<td>Organ Donation Transplant</td>
</tr>
<tr>
<td>OL</td>
<td>Organisational Learning</td>
</tr>
<tr>
<td>RHA</td>
<td>Regional Health Authority</td>
</tr>
<tr>
<td>SCQ</td>
<td>Self Completed Questionnaire</td>
</tr>
<tr>
<td>SSI</td>
<td>Semi-Structured Interview</td>
</tr>
<tr>
<td>TK</td>
<td>Tacit Knowledge</td>
</tr>
<tr>
<td>TL</td>
<td>Transformational Leadership</td>
</tr>
</tbody>
</table>
Acknowledgements

Firstly my sincere thanks and acknowledgement goes out to my supervisor Dr Peter Moran. His insight has proved to be invaluable and his guidance kept this project firmly on track.

Secondly I must thank my manager Phil Enstone. His understanding and constant offer of support, time and feedback has gone beyond the call of duty.

To my best friend John Fisher – How hard can it be?

Finally the biggest thanks go to my wife, Myf and son, Callum; without their sacrifice, support and understanding I would not have been able to get this far. This is dedicated to them.
Executive Summary

Since the first voluntary blood donations by members of the Camberwell Red Cross at the Kings College Hospital in 1921, to its inception in 1946, the organisation is steeped in history and culture. NHS Blood and Transplant [NHSBT] was formed originally from 15 regional blood centres, previously operating in isolation of each other until 1994. After being devolved from the regional health authorities and ‘nationalised’, the organisation struggled to consolidate its new structure and it was not until the departure of its chief executive in 1998 that the organisation began to develop into the largely multi-directorate structure that it is today. However it remains geographically distributed as an organisation, operating out of 13 blood centres across England.

The objective of the study was to investigate whether NHSBT operates as a unified learning organisation, freely sharing its knowledge and to assess how the structural design of the organisation, its culture and its leadership impact on its operation.

A case study was undertaken within the estates and facilities directorate and comprised of data compiled from self-completed questionnaires and a series of focus group and semi-structured interviews.

For the NHSBT to improve and sustain performance it must be able to learn; this is termed organisational learning [OL], which in turn is dependent on the organisations ability to obtain and transform its knowledge, this is termed knowledge management [KM].

For successful OL and KM the organisation needs to recognise and nurture the links between individuals, groups, structure and the process of socialisation within the organisation. The study
demonstrated the organisation does not exhibit the requisite characteristics identified for successful OL and KM in a number of areas.

Research showed the organisation focuses heavily on policy, process and regulation. Its ability to adapt and change is hindered by bureaucracy and there is a culture of hierarchical control and authority; inhibiting the behaviours required for OL and KM.

The research unsurprisingly demonstrated the blood centres [sites] are very focussed on their own operations. However, this focus affects the sites ability to share knowledge and best practice between peer colleagues across the regional, let alone national, structure of the organisation.

Research showed that area [site based] managers don’t necessarily share information and knowledge about organisational or directorate wide matters with site based staff, tending to focus on local matters only, inadvertently isolating their teams from the ‘bigger picture’.

The study determined there is a general view at operational level; the leadership of the organisation is isolated from site operations and the bureaucracy of the multi-directorate infrastructure, presented an emerging negative view of the national infrastructure as a whole.

The study concluded with a number of recommendations designed to improve and encourage communication and collaboration within the estates and facilities directorate and the wider organisation. They include the engagement of the board of directors with operational staff, the cross fertilisation of senior directorate managers to openly share knowledge and experience with other directorates and the reduction of bureaucratic processes within the organisation to encourage effective OL and KM.
Chapter 1

Introduction

1.1 Organisational background

In 1921, members of the Red Cross in Camberwell volunteered to give blood needed at the Kings College Hospital. This is generally recognised as the beginning of the first voluntary blood donor service in the world (NHS Blood and Transplant, 2011). From this event, voluntary ‘donor panels’ and ‘blood services’ evolved across other cities. In 1946, the Ministry of Health set up a National Blood Transfusion Service [NBTS], linking these services into regional transfusion services and blood centres.

After the National Health Service [NHS] was established in 1948, the NBTS became part of that service, being administered by the then regional hospital boards [RHB] (Northern Regional Health Authority, 1985). RHB’s were disbanded following the introduction of the NHS Reorganisation Act 1973 and NHS control was passed to newly formed Regional Health Authorities [RHA] in 1974 (The National Archives, n.d.).

The NBTS continued under the governance of individual RHA’s, each having their own approach to blood service management. These regional services subsequently became insular from each other. However 1993/94 saw the organisation become re-established as the National Blood Service [NBS], signalling the start of its reformation (Walker, 1995).
1.2 The National Blood Service

Following a review of the 15 NBS regional blood centres in 1993/94, the Department of Health [DoH] identified that nationally; there was an excessive duplication of functions, limited coordination between centres, variations in processing practices, the availability of blood stocks was unreliable and even variations in the interpretation of selection criteria for blood donors (Department of Health, 1995).

Several blood centres also diversified; some developing research links with local university hospitals, others specialised in [human] tissue services and others in specialist patient services or stem cell research. In short the NBS was:

> A loose federation of regional services managed by regional health authorities and coordinated on professional issues through a small national directorate (Adey, 1995:4).

The DoH concluded that RHA control would be relinquished and an independent National Blood Authority would oversee the formal implementation of the NBS. The regions would be disbanded and replaced with 3 zones; The North, Midlands South West and London South East (Department of Health, 1995).

However, concerns over the effectiveness of the new organisation and its management continued and in 1998 following an independent report by Professor John Cash, the Chief Executive of the NBS was dismissed. His report noted:

> There was a disturbing degree of isolation of headquarters from operational realities. The chairman of the board had often been too close to the day to day operations and on occasions seems either to have been misinformed or to have
misunderstood the briefing that he received. As a result, the national blood service had been exposed to a central management structure and a command and control culture that had insufficient regard for the views of customers, staff, and the interface between patients and the service (Warden, 1998).

Work continued on developing the national organisation and following a further review of the NBS, the National Audit Office reported to the House of Commons:

_The National Blood Service has taken a long time to complete the transition to its national role, although there are clear signs that it is now doing so (National Audit Office, 2000:3)._ 

The report also noted operational discrepancies between the 3 zones. These included; variations in terms of procurement strategies, sharing best practice, performance monitoring, differing costs in the sales of product and patient services, though it acknowledged work was continuing to address these matters (National Audit Office 2000).

In principal, a national organisation had been created, but a nationally integrated directorate management structure would be introduced and zonal responsibilities relinquished (Fogden, 2000). However, geographically and to support day to day management functions, the ‘zones’ would remain.

### 1.3 NHS Blood and Transplant

The NBS is an Arms Length Body [ALB] to the wider NHS. A DoH review of ALB’s in 2004, identified synergies amongst several of them and some ALB’s were merged. In 2005, NHS Blood and Transplant [NHSBT] was formed, comprising 3 former ALB’s: The
NBS, Organ Donation & Transplant [ODT] and UK Bio-Products Laboratory [BPL].

Integration of the 3 organisations was limited and a further review of the ALB’s in 2010, saw the DoH recommend BPL be transferred to a DoH-owned limited company (DoH, 2010). This process was completed in January 2011.

ODT continues to operate from its central function in Bristol and the NBS remains the dominant force in the NHSBT, occupying 13 Blood Centres and over 80 outlying sites, [Appendix 1]. However, to date no centralised headquarters office has been created and senior managers remain disparate across the country.

1.4 Regulatory Compliance

The NHSBT undertakes a complex process of harvesting, manufacturing and supplying blood components and delivers specialist patient diagnostic and treatment services, life saving clinical research and also the collection and processing of human tissue, cartilage, organs, and bone.

A pharmaceutical manufacturer, the NHSBT is regulated heavily by Acts of Parliament, EU Directives, Blood Safety and Quality Regulations, Codes of Practice and other International Benchmarks for all its operations and adheres to the principals of [pharmaceutical] Good Manufacturing Processes [GMP] to comply with these requirements.

By law, the NHSBT must be licensed by the Medicine and Healthcare Regulatory Agency [MHRA] to undertake its operations at each blood centre and specific satellite sites. Failure to comply with the principles noted above could result in the withdrawal of part or all of a blood centre [or satellite site] licence and even prosecution for any
critical breaches that could result in, or have the potential to cause the loss of a patient’s life.

Hence the principals of GMP are applied across all functions of the organisation. Coupled with the need to comply with all other UK and European statutory and regulatory instruments the NHSBT has created a vast number [approximately 8000] of internal policies, processes and procedures which are stringently enforced and regulated by various internal departments to ensure compliance at all times.

1.5 General

The NHSBT is a not-for-profit organisation with clear objectives for its future:

Not-for-profit organisations do not have goals for profitability, but they do have goals that attempt to specify the delivery of services (Daft, 1998:49)

NHSBT stated goals are:

To deliver a world class blood service, providing a sustainable and dependable supply of blood components meeting all safety, quality, compliance and service standards.

To provide Specialist Patient Services centred on a thorough understanding of the needs of its customers that are consistent with the objectives of NHSBT

To maximise the number of organ donors, donated organs and registered supporters of organ donation, thereby enabling an increase in the number of life-saving transplants.
To provide a secure and financially viable source of high quality Fractionated Products and Plasma Proteins to NHS patients.

To be an effective corporate champion and advocate for the needs of donors and identifying opportunities for effective collaboration across its Operating Divisions and supporting them with highly efficient and effective Group Services. (NHSBT, 2010:2-3)

NHSBT core purpose is:

To save and improve patient’s lives (NHSBT, 2010:1)

1.6 About the author

The author is employed as a Regional Estates & Facilities [E&F] Manager for the North. With a team of 5 Area Managers [Appendix 2] the department is responsible for all property, engineering and facilities support services. The function is a ‘group wide’ service [Appendix 3] underpinning core NHSBT operations. Other responsibilities include the management of the National E&F Helpdesk and National Fire Safety Manager for NHSBT.

1.7 Research Question and Objectives

The strategic issue is does the NHSBT operate as a unified learning organisation, sharing knowledge freely or is it simply an amalgamation of systems and processes formed as a result of political and regulatory dictation and historical processes?
Research Objectives:

1. To critically appraise the organisational structure of the NHSBT with regard to its facilitation of knowledge management and organisational learning.

2. To critically appraise the organisational culture of the NHSBT and how this impacts on its ability to share knowledge and work collaboratively as a unified organisation.

3. To critically appraise how structure and culture and the ability to share knowledge is influenced by the leadership of the organisation.
Chapter 2

Literature Review and Conceptual Framework

2.1 Organisational Learning

For organisations to survive, improve and outperform their competitors they must be able to learn (Daft, (a) 1998; De Wit and Meyer, 2004; Pemberton and Stonehouse, 2000). For this to occur actors within the organisation must also learn; this process is termed organisational learning [OL] (Parboteeah and Jackson, 2007). The definition of OL varies amongst its advocates [Table 1] making OL as a concept somewhat problematic and difficult to grasp for many (Burnes, 2004; Boreham and Morgan, 2004). Whilst this may be, a common theme for OL is that it occurs through the collective, where actors continually learn how to learn together (Senge, 2006). Senge (2006) states individual learning is immaterial for OL but without it no OL occurs (Senge, (a) 2006).

Handy (1999), recognises the importance of individual learning, sharing a similar view; observing that learning is typically anchored to the group in which it is learnt, when managed correctly, the relevance, context and application of the learning helps spread common thinking and experience across an organisation (Handy, 1999). OL occurs when groups recognise more effective ways of working; though is only successful when structure, people and systems are aligned with each other (Hayes, 2010).

Academics use the term OL interchangeably with the learning organisation [LO] (Denton, 1998) and there is large overlap between the two (Gould, 2000), while others attempt to draw clear distinctions between them; OL as a process and LO as a goal or characteristic (Gorelick, 2005). Similarly, the concept and definition of LO varies amongst its advocates as shown in Table 2.
In the absence of clear definitions (Carnall, 2007; Atwood et al., 2010; Eijkman, 2011), it is apparent that individual learning is essential but not sufficient for OL. It is a social, collective process, widely distributed, incorporating general adaption and change in alignment with the organisations objectives, taking place across multiple levels in a changing environment.

Though this is challenged by Carnall (2007) who asks;

*Is the entire learning process....nevertheless a process largely the preserve of the cognitive elite?*  
*(Carnall, 2007:170).*

Nevertheless, OL encompasses processes utilised to capture, acquire and convert tacit knowledge to new explicit knowledge, integrating this new knowledge into procedures, processes and structures to improve organisational performance (Carnall, 2007). Despite a plethora of descriptions for OL [Table 1], Hislop (2009) offers a rounded definition, which recognises the links between individuals, groups, the organisation, structure and the social forces which are requisite for OL to occur;

*The embedding of individual and group level learning in organizational structures and processes, achieved through reflecting on and modifying the norms and values embodied in established organizational processes and structures (Hislop, 2009:93).*

Further research into the definitions of OL/LO merely demonstrates the divergent opinions of academics and practitioners alike, with some describing it as a metaphor for complexity and culture and others reducing it to simplistic premeditated processes (Daft, (a) 1998), which may be designed into an organisation. Notwithstanding these differences, OL/LO is a concept which has been recognised by many for over 70 years (Calhoun et al., 2011).
<table>
<thead>
<tr>
<th>Year</th>
<th>Author[s]</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1963</td>
<td>Cyert &amp; March</td>
<td>A process by which organisations as collectives learn through interaction with their environments.</td>
</tr>
<tr>
<td>1977</td>
<td>Ayrgris</td>
<td>A process of &quot;detection and correction of errors.&quot; Where organizations learn through individuals acting as agents for them: The individuals' learning activities, in turn, are facilitated or inhibited by an ecological system of factors.</td>
</tr>
<tr>
<td>1984</td>
<td>Daft &amp; Weick</td>
<td>Is knowledge about the interrelationships between the organizations action and the environment.</td>
</tr>
<tr>
<td>1989</td>
<td>Stata</td>
<td>Organizational learning occurs through shared insights, knowledge, and mental models...and builds on past knowledge and experience, that is, on memory</td>
</tr>
<tr>
<td>1991</td>
<td>Huber</td>
<td>An entity learns if, through its processing of information, the range of its potential behaviours is changed</td>
</tr>
<tr>
<td>1993</td>
<td>Garvin</td>
<td>Companies use effective information and knowledge management and continually refresh their intellectual capital.</td>
</tr>
<tr>
<td>1996</td>
<td>Nadler &amp; Tushman</td>
<td>When there is congruence between the task, the individuals, organisational arrangements and the informal, constantly evolving organisation.</td>
</tr>
<tr>
<td>1998</td>
<td>Daft</td>
<td>It is not about specific learning principles such as accounting or marketing. It is enhancing the organisations capability and each person's capacity to do things that they were not able to do previously.</td>
</tr>
<tr>
<td>1998</td>
<td>Brown</td>
<td>Is a process where organisations learn either through direct organisational experience or vicariously from the experience of other organisations</td>
</tr>
<tr>
<td>1999</td>
<td>Schein, E.H.</td>
<td>Is often defined as the result of many individuals learning generatively in an organizational context.</td>
</tr>
<tr>
<td>2005</td>
<td>McShane, S. &amp; Von Glinow, M.</td>
<td>A process that develops an organisations capacity to acquire, share and use knowledge more effectively.</td>
</tr>
<tr>
<td>2006</td>
<td>Real, J. et al.</td>
<td>Is a capability in terms of knowledge stocks and learning flows...</td>
</tr>
<tr>
<td>2010</td>
<td>Hayes</td>
<td>Organizational learning involves enhancing the collective ability to act more effectively.</td>
</tr>
<tr>
<td>2011</td>
<td>Vera, Crossan &amp; Apaydin</td>
<td>Is the process of change in individual and shared thought and action which is affected by and embedded in the institutions of the organisation.</td>
</tr>
<tr>
<td>Year</td>
<td>Author[s]</td>
<td>Interpretation</td>
</tr>
<tr>
<td>------</td>
<td>----------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>1996</td>
<td>Starkey</td>
<td>Is a metaphor, with its roots in the vision of and the search for a strategy to promote individual self-development with a continuously self transforming organization.</td>
</tr>
<tr>
<td>1998</td>
<td>Daft</td>
<td>An organisation in which everyone is engaged in identifying and solving problems, enabling the organisation to continuously experiment, improve and increase its capability.</td>
</tr>
<tr>
<td>2000</td>
<td>Finlay</td>
<td>Is skilled in continually seeking out knowledge deficiencies, acquiring, creating, spreading and managing knowledge, and expert at modifying its behaviour to reflect its new knowledge.</td>
</tr>
<tr>
<td>2002</td>
<td>Handy</td>
<td>Is one that learns and wants its people to learn...it must have a formal way of asking questions, seeking out theories, testing them and reflecting upon them.</td>
</tr>
<tr>
<td>2006</td>
<td>Senge</td>
<td>Is where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free and where people are continually learning how together.</td>
</tr>
<tr>
<td>2007</td>
<td>Beardwell &amp; Claydon</td>
<td>The learning organisation links the development of the potential of everyone (not just the managers, or 'talent' in the business) to the development of the company as a whole.</td>
</tr>
<tr>
<td>2007</td>
<td>Stacey</td>
<td>Learning organisations endorse change flowing from people learning effectively together and so create knowledge to facilitate that change.</td>
</tr>
<tr>
<td>2007</td>
<td>Fard et al.,</td>
<td>Covers individual, group and organisational learning. It is a type of collective activity to reach the organisations shared vision.</td>
</tr>
<tr>
<td>2008</td>
<td>Johnson et al.,</td>
<td>Is capable of continual regeneration from the variety of knowledge, experience and skills of individuals within a culture that encourages mutual questioning and challenge around a shared vision.</td>
</tr>
<tr>
<td>2010</td>
<td>Schein</td>
<td>Have an avowed purpose of creating some common concepts and language in a situation where they perceive a lack of shared assumptions.</td>
</tr>
<tr>
<td>2011</td>
<td>Easterby-Smith &amp; Lyles</td>
<td>Is seen as an entity, an ideal type of organization which has the capacity to learn and therefore prosper.</td>
</tr>
</tbody>
</table>
2.2 Knowledge Management

For OL, an organisation may be considered as a structure for processing information and knowledge (Haperberg and Reiple, 2001) and to remain sustainable depends on its ability to learn by obtaining and transforming its knowledge (Mishra and Bhaskar, 2011).

There is no specific definition to KM (Hughes, 2010; Giju et al., 2010), it embraces elements of people, technology, processes, systems, infrastructure and theories from other disciplines (Saatçioğlu and Sezgin, 2009; Perez Lopez et al., 2004), therefore [as demonstrated in Table 3] a universally accepted framework cannot be established for KM (Rubenstein-Montano et al., 2001).

Equally academics disagree on the definition of what constitutes knowledge in the workplace, though there is some agreement in that knowledge is something that can be acquired, measured, distributed and may be codified, explicit or tangible (De Wit and Meyer, (a) 2004) and is generally accepted as an organised combination of rules, ideas, information and procedures which has a meaning (Bhatt, 2000).

Perhaps the most rounded definition for KM may be written as:

Knowledge Management is a discipline that promotes an integrated and collaborative approach to the process of information asset creation, capture, organization, access and use. Information assets include databases, documents and, most importantly, the uncaptured, tacit expertise and experience resident in individual workers (Gartner Group, 2011:3)
There is an extensive body of research describing how KM can be improved in organisations (Shaw, and Edwards, 2006; Rubenstein-Montano et al., 2001), but whilst their definitions remain vague and

<table>
<thead>
<tr>
<th>Year</th>
<th>Author[s]</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>Allee</td>
<td>Is managing the corporation’s knowledge through a systematically and organizationally specified process for acquiring, organizing, sustaining, applying, sharing and renewing both the tacit and explicit knowledge of employees to enhance organizational performance and create value.</td>
</tr>
<tr>
<td>1997</td>
<td>Wiig</td>
<td>Is the systematic and explicit management of knowledge related activities, practices, programs and policies within the enterprise.</td>
</tr>
<tr>
<td>1999</td>
<td>Rowley</td>
<td>Is concerned with the exploitation and development of the internal knowledge assets within an organisation with a view to furthering the organisation’s objectives.</td>
</tr>
<tr>
<td>2000</td>
<td>Gupta</td>
<td>Is a process that helps organizations find, select, organize, disseminate, and transfer important information and expertise necessary for activities</td>
</tr>
<tr>
<td>2000</td>
<td>Lee &amp; Yang</td>
<td>Is the collection of processes that govern the creation, dissemination and leveraging of knowledge to fulfil organisational objectives.</td>
</tr>
<tr>
<td>2000</td>
<td>Finlay</td>
<td>Knowledge Management is the systemic capture and structuring of knowledge within an organisation in order to improve business performance.</td>
</tr>
<tr>
<td>2001</td>
<td>Bhatt</td>
<td>Is a process of knowledge creation, validation, presentation, distribution and application</td>
</tr>
<tr>
<td>2002</td>
<td>Horwitch &amp; Armacost</td>
<td>Is the creation, extraction, transformation and storage of the correct knowledge and information in order to design better policy, modify action and deliver results</td>
</tr>
<tr>
<td>2003</td>
<td>Zarraga &amp; Garcia-Falcon</td>
<td>Is a process whose input is the individual knowledge of a person, which is created, transformed and integrated in work teams within the company, whilst its output is organizational knowledge.</td>
</tr>
<tr>
<td>2004</td>
<td>McMahon et al.,</td>
<td>Encompasses a wide range of organizational, management and technologically orientated approaches that promote the exploitation of an organizations’ intellectual assets.</td>
</tr>
</tbody>
</table>
ambiguous, it could be argued that any KM initiatives will also remain just as ambiguous.

There is no consensus about the characteristics of KM, with both academics and researchers taking different perspectives; those who believe KM comprises technological solutions, e.g. intranet/internet, electronic document control, database platforms, management systems, e-training and help desk applications etc (Park et al., 2004), to those who believe knowledge resides in the human mind and that training and motivation are intrinsic factors to KM (Bhatt, 2001) and that knowledge is a product of the interaction between tacit and explicit knowledge and sometimes unconscious human activity (Nonaka and Takeuchi, 1995; Mullholland et al., 2000).

Equally, despite its social aspects, there are those who argue strongly that without modern technology, KM would be ‘gutted’, (Holsapple, 2005). This is certainly true in part; for example the ability to manage complex customer databases, manage on-line systems or the utilisation of electronic software would be lost without technology.

Conversely, empirical evidence also shows that technology based KM initiatives are often deserted by users (Rizzi et al., 2009) and some organisations remain unclear about the extent to which they have been successful (Anantamula and Kanungo, 2009).

One fundamental failing is attributed to the fact that KM systems treat knowledge like any other resource; divorced from day to day activities, failing to recognise essential knowledge is often transferred between people, by stories, observation and social interaction (De Wit and Meyer, (a) 2004). This may be termed working knowledge.

It is the role of management to ‘bridge the divide’ and ensure synergy between people, process and the organisations socio-cultural environment (Mohammed et al., 2006) and to recognise that
knowledge cannot simply be divorced from attitudes and values (McMahon et al., 2004; Mullholland et al., 2000).

A recent study of 1,000 employees in business, government and non-profit organizations reported that most workplace learning goes on unbudgeted, unplanned and uncaptured by the organization...up to 70% of workplace learning is informal (De Wit and Meyer, (a) 2004:517)

It therefore stands to reason that KM initiatives would work best when the people who generate knowledge are also involved in the development of systems used to manipulate, store and disseminate it. Organisations would be wise to recognise that not all knowledge is tangible (Stacey, 2007). Though several academics seem to agree that for successful KM, there are a number of key enablers which include a balanced framework of technology, structure, culture, leadership, communication, employee motivation and the environment in which it resides (Anantamula and Kanungo, 2009; Metaxiotis et al., 2005; Liebowitz, 2006; Martensson, 2000; Rubenstein-Montano et al., 2001).

2.3 The Relationship between OL & KM

The relationship between OL and KM is understandable; learning in itself creates new knowledge (Mishra and Bhaskar, 2011; Sanz-Valle et al., 2011) and adds to existing knowledge (Pemberton and Stonehouse, 2000). How knowledge is stored, translated, distributed and managed is viewed as a key ingredient for an organisation’s sustainability and success (Bhatt, 2001; Greiner et al., 2007; Jasimuddin, 2008; Metaxiotis et al., 2005 Pemberton and Stonehouse, 2000).

Nonaka and Takeuchi (1995) developed a theory, identifying knowledge as being either tacit or explicit. Citing tacit knowledge [TK]
as difficult to formalise and characterised by personal intuition, experience and values (Snell and Hong, 2011) and explicit knowledge [EK]; which may be codified, articulated, expressed and distributed (Huczynski and Buchanan, 2007) and is typically readily available (Carnall, 2007).

In the organisational context, TK is typically distributed by people sharing their knowledge and experience directly [face-to-face] with others (Liebowitz, (a) 2006) and EK can be shared in the form of procedures, data, manuals, IT media and such like (Seidler-de-Alwis and Hartmann, 2008).

Nonaka and Takeuchi (1995) developed a process model around the knowledge spiral whereby TK is converted to EK to be shared by one person and back again to TK when internalised and adopted by another person. This spirals into the continuous process of socialisation, externalisation, combination and internalisation [SECI] (Nonaka and Takeuchi, (a) 1995). The SECI model is not without its critics; as it centres around Japanese organisations with limited empirical evidence and questions remain as to whether the model is transferrable to European cultural and managerial contexts (Gourlay, 2006; Snell and Hong, 2011; Samara, 2007), overlooks the importance of relationships (Stacey, 2007) and whether the process of externalisation is nothing really more than a shared but tacit set of assumptions among employees (Snell and Hong, 2011).

Despite its critics, SECI’s principals are common to the concept of knowledge management and widely agreed by many researchers and serve as a foundation for other concepts (Hoe, 2008). Concepts such as SECI are undoubtedly desirable and idyllic but whether they provide a framework for action is abstract and key questions are left unanswered. What behavioural changes are required? What policies and procedures are required? What KM initiative is required etc? (Garvin, 1998).
However at the foundation of these concepts is the basic premise and combination of knowledge sharing, communication, capturing experiences, understanding the value of knowledge, individual and collective learning and a continuous process of improvement (Pun and Nathai-Balkissoon, 2011).

Successful learning organisations create an organisational environment that combines organisational learning with knowledge management (Pemberton and Stonehouse, 2000:186).

Figure 1: The OL & KM Environment
Source: Pemberton and Stonehouse (2000:186)

Though to date there is no single knowledge structure that is appropriate; organizations must develop different knowledge structures depending on the stage of the organizations development and the type of knowledge under consideration (Lucas, 2010:190).

Pemberton and Stonehouse’s (2000) model of the OL and KM environment [Table 1] identifies processes linking OL and KM, but shows the relationship between culture, structure and infrastructure operating within the organisational context, suggesting OL and KM is an all encompassing framework.
However it is generally accepted that enablers such as structure, culture, infrastructure and leadership are key influences required to foster a successful OL and KM environment (Hislop, 2009; Carnall, 2007; Prugsamatz, 2010; Franco and Almeida, 2011; Van Grinsven and Visser, 2011), suggesting that OL and KM sit within the confines of culture, structure and infrastructure and not the other way round.

Undoubtedly OL and KM are interwoven (Prugsamatz, 2010; Boreham and Morgan, 2004; Pun and Nathai-Balkissoon, 2011), though organisations need convergent systems to capture OL and KM; all of which need energising by appropriate leadership, vision, culture, structure and infrastructure (Carnall, 2007; Pemberton and Stonehouse, 2001).

2.4 Organisational Structure

Organisations must be designed so that all parts of it work together coherently to achieve the organisations aims (Daft, (a) 1998). Structure sets in place; people, reporting functions, processes and relationships which must be able to cope with the speed of change in the 21st century and recognise the need to capture OL and KM for continued success (Johnson et al., (a) 2008).

Johnson et al. (2008) propose the ideal structural configuration as a virtuous circle where knowledge is shared by all and where organisations are constantly reorganising in response to changing conditions and where informal relationships and processes foster OL and KM (Johnson et al., (a) 2008).
This configuration presents a unified ideological community view; its broad brush approach suggests internal mechanisms of structure, relationships and processes already work effectively. Whilst Johnson et al., (2008) discuss the component elements of the circle (Johnson et al., (a) (2008), they offer no ideal definition of what the internal mechanisms of these elements should comprise. In established organisations it may be difficult to overcome traditional operating structures and cultures to achieve this ‘ideal’ condition (Argyris, 1999).

In many organisations, structures, cultures and processes are invariably established, which can impede development (Hughes, (a) 2010) and many authors are able to articulate a-typical structural designs; matrix, multi-divisional etc (Finlay, (a) 2000; Hughes, (a) 2010; Daft, (b) 1998; Johnson et al., (a) 2008). However in the OL arena, formal hierarchical structures distancing management from workers are replaced with more horizontal structures, fostering empowered self-leading teams (Daft, (a) 1998; Roloff et al., 2011).

Senge (2006) observes that long-lived successful organisations foster similar styles giving employees a sense of ‘who they were and
what they did’ allowing them to evolve, learn and adapt, where people can better understand what others did (Senge, (b) 2006).

Similarly Argyris (1999) posits that for organisations to survive the challenges of the modern world, they require the development of valid and useful knowledge, creative planning, intensive internal cooperative action by all involved, long term commitment and a developed understanding of criteria for effectiveness (Argyris, 1999).

These requirements are dependent on continuous and open access between individuals and groups involved in boundary-spanning activities (Stacey, 2007); where there is reliable communication and collaboration in an environment where trust and interdependence is prevalent (Rolloff et al., 2011; Osland et al., 2007) and where the structure of the organisation prescribes how activities will be grouped and enables social processes where members work together to resolve an organisational predicament (Hayes, 2010). This is as much a social process as it is a business system.

The central problem in terms of structure is how to divide up tasks and make the whole thing work. Yet the design of an organisation is subject to varying contributory factors (Hamel and Prahalad, 1996). This may include; market sector, age, size, whether its public sector or private sector, political pressures and external environmental forces to name a few (Thompson, 1997). However superbly performing organisations pay extraordinary attention to managing the socialisation processes within their companies (Mintzberg et al., 1995).

Mintzberg et al., (1995) illustrated elements of characteristics found in various types of organisations and their structural configurations. Noting that older and larger organisations, such as the NHSBT tend to have more formalised behaviours, elaborate structures, developed and devolved support functions, increased bureaucracy and a large hierarchy to effect supervision and control (Mintzberg et al., 1995).
Typically these organisations are often found in stable environments; where there is limited decision-making by senior managers (Grant, 2008) where change can be slow (Daft, (a) 1998) and consequently, tend to have a low innovation orientation (Brooks, 2009), suggesting that such organisations could be slow to learn. In a fast-paced competitive environment, such slow interchanges could be fatal (Grant, 2008).

2.5 Organisational Culture

Structure describes an organisations fundamental anatomy. Leaders must also concern themselves with the organisational composition, its culture and the relationships that permit learning, information and knowledge to flow through it (Mintzberg et al., (a) 1995).

Organisational culture is difficult to define precisely (Brown, (a) 1998, Johnson et al., (b) 2008; Finlay, (b) 2000; Schein, (a) 2010) and a lack of consensus may be caused by differing sources that inform the understanding of culture (Hughes, (b) 2010), thus making the concept of understanding culture [for leaders] inherently difficult.

Darwin’s (1998) “rainforest” analogy; where an organisation recognises elements of unpredictability, the benefits of both positive and negative feedback, that there will always be some disruption, but the ability to be mutually organised will prevail (Darwin, 2001), is idealistic, but offers an example of organisational culture that most leaders would recognise; where the goal is to create an environment favourable for the development of the organisation (Perez Lopez et al., 2004).

Culture may be described as ‘the way things get done around here’ (Luffman et al., 1998:20; Pettinger, 1996:393) and is commonly defined as the attitudes, values, beliefs and norms and customs [shared by employees], which distinguish organisations from each
other (Carnall, (b) 2007; Daft, (c) 1998; Johnson et al., (b) 2008; Pettinger, 1996).

Culture has a strong bearing on organisational intelligence (Liebowitz, (b) 2006) and a collaborative culture has a positive influence on organisational performance (Perez Lopez et al., 2004), but culture is subject to its relationship with the environment in which it exists (Schein, (a) 2010).

Several academics have identified causal links between culture types in organisations and its impact on OL and KM, suggesting amongst others, that trust, team spirit, collaboration, communication and knowledge sharing cultures are positively related to OL and KM (Perez Lopez et al., 2004; Suppiah and Sandhu, 2011; Al-Alawi et al., 2007; Oliver and Kandadi, 2006; Pyoria, 2007; Park et al., 2004). But in terms of any OL/KM initiatives:

*It is naive to suppose that a new infrastructure will lead to people to start collaborating. It is much more likely to be used in ways that reinforce the existing culture than in ways that change it* (Senge, (c) 2006:325)

Leaders must recognise that culture can also be a key inhibitor to OL and KM in organisations (McDermott and O’Dell, 2001; Tuggle and Shaw, 2000). It is one of the hardest barriers for leaders to overcome (Perez Lopez et al., 2004; Schein, 2010) and in larger organisations there is rarely a homogeneous culture, but often nested, overlapping and sometimes competing sub-cultures (Brown, 1998).

Schein (2010) determines that culture and leadership are two sides of the same coin:

*The bottom line for leaders is that if they do not become conscious of the cultures in which they are*
embedded, those cultures will manage them. Cultural understanding is desirable for all of us, but it is essential to leaders (Schein, (a) 2010:22).

Therefore, in terms of a successful organisation, it is the role of leaders to be clear about what they stand for, to instil attitudes, beliefs, values and purpose as principles and create a culture that inspires people (Whetten and Cameron, 2007).

2.6 Leadership

Leadership is an essential component for OL (Cooksey, 2003; Crawford, 2005; Senge, (c) 2006). Leaders create change by reinforcing development processes (Atwood, et al., 2010) and are fundamental in creating cultures and structures that absorb, assimilate and apply knowledge (Kavanagh and Ashkanasy, 2006) and have an enormous impact on KM practices (Nguyen and Mohamed, 2011).

Senge (2007) argues leadership exists at 3 simple levels; with local line managers accountable for results and localised changes within their area of control, with networkers who typically move around the organisation such as training and development staff or members of internal communities of practice and finally executive leaders, who are necessary for profound change and capable of creating conditions for innovation and knowledge creation and these roles are essential for the learning organisation (Senge, 2007). However:

The problem with leadership is; people [leaders] have no real comprehension of the type of commitment that is required to build such an organisation (Senge, (c) 2006:317).

Many academics appear to have similar views on effective leadership, though none appear to offer any model characteristics of
good leaders (Atwood, et al., 2010; Hayes, (a) 2010; Fineman et al., 2006). This is confounded by the fact that almost every leader is invariably a manager, but not every manager is a leader (Cyert, 1990). Carnall (2007) argues that organisations learn by internal experimentation, seek external feedback, learn by failure, and by engaging with concepts such as transformational leadership and a willingness to learn (Carnall, (a) 2007).

Transformational leadership [TL] dominates KM literature (Hislop, (a) 2009) and empirical evidence found by Collins (2001) showed TL as a key enabler for bringing about organisational change, innovation and organisational development (Collins, 2001). Transformational leaders motivate followers not just to follow them, but cultivate their needs (Crawford, 2005), they inspire them to believe in a shared vision to help bring about greater changes and new processes (Daft, (a) 1998) and act as role models going beyond self-interest for the benefit of the organisation (Osland et al., (a) 2007).

In one of the largest studies of indigenous leaders [18,000 managers in 825 companies from 62 countries] the traits of the transformational leader were identified as the most universally accepted management style (Osland et al., (a) 2007), representing a form of leadership which is distinctive from the more traditional transactional management styles (Hislop, (a) 2009).

The characteristics of TL are recognised as key ingredients in the development of OL & KM, as it will influence cultures and practices associated with their implementation and management to permeate throughout the organisation (Birasnav et al., 2011; Atwood et al., 2010; Singh, 2008; Garcia-Morales et al., 2008; Crawford, 2005). Geographical distribution further creates fragmentation, which in itself poses challenges to OL & KM and TL is seen as critical to the success of geographically distributed teams (Argote et al., 2011) such as those found in the NHSBT.
TL could hinder OL & KM, as followers may anticipate that the leaders will know what is best for the organisation's success and therefore not learn and could be less inclined to face up to their judgement when pursuing perilous new ideas or strategies (Jogulu, 2011; Yukl, 1999).

By contrast, the transactional approach is typically focussed on individual interests of leaders and subordinates; by maintaining contractual obligations, establishing prescribed objectives and monitoring and controlling the results (Garcia-Morales et al., 2008). It is akin to short term goals rather than fostering a culture towards sustained OL (Atwood et al., 2010) and in organisations where leadership is more departmental or autocratic, there is a tendency to constrain risk taking and fear of failure is high (Carnall, (a) 2007).

Perhaps the most important aspect of management is the ability to tailor leadership style to the organisational context (Johnson et al., (c) (2008) and establish a healthy balance of both transactional and transformational leadership in an environment and culture where the organisation is prepared to take risks, innovate and even fail but crucially, learn and share knowledge from these experiences.
2.7 Development of a Conceptual Framework

The conceptual framework [CF] was developed using elements of Pemberton and Stonehouse’s (2000) OL and KM environmental framework, which articulates the intrinsic link between OL and KM and adapting Johnson et al., (2008) virtuous circle for organisational configuration and knowledge sharing (Johnson et al., (a) (2008)).

![Conceptual Framework: OL & KM in the Organisational Context](image)

The CF demonstrates:

- The interplay between OL & KM and its process of control.
- How OL & KM feed into the organisational configuration and vice versa.
- That OL& KM is a continuous process.
- That OL & KM is contained and nurtured within the forces of structure, culture and leadership.

- That structure, culture and leadership are essential interplays surrounding the organisational configuration.

- That structure, culture and leadership are interdependent of each other.

The circle shape symbolises constant reassessment in response to ever changing internal and external conditions (Johnson et al., (a) 2008), in order to maintain the performance of the organisation.
Chapter 3

Research Methodology

3.1 Research Philosophy

Understanding philosophical issues assists the researcher in his research approach, to identify what type of research design will support the project and help create or adapt a design which may be outside of the researchers past experience (Easterby-Smith et al., 2011). Further influences on research philosophy include the type of research approach taken, which may typically comprise epistemological or ontological orientations (Crowther and Lancaster, 2009; Saunders et al., 2009; Easterby-Smith et al., 2011; Collis and Hussey, 2009).

*Epistemology...investigates the nature, grounds, limits and validity of human knowledge (Crowther and Lancaster, 2009:40).*

*Ontology is concerned with the nature of reality (Saunders et al., 2009:112).*

*Respectively they represent an empirical versus conceptual approach (Crowther and Lancaster, 2009:23).*
Other approaches which may influence research philosophies are shown in Table 4: Assumptions of the main paradigms.

<table>
<thead>
<tr>
<th>Philosophical assumption (the nature of reality)</th>
<th>Positivism</th>
<th>Interpretivism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ontological assumption</td>
<td>Reality is objective and singular, separate from the researcher</td>
<td>Reliability is subjective and multiple as seen by the participants</td>
</tr>
<tr>
<td>Epistemological assumption (what constitutes valid knowledge)</td>
<td>Researcher is independent of that being researched</td>
<td>Researcher interacts with that being researched</td>
</tr>
<tr>
<td>Axiological assumption (the role of values)</td>
<td>Research is value-free and unbiased</td>
<td>Researcher acknowledges that research is value-laden and biases are present</td>
</tr>
<tr>
<td>Rhetorical assumption (the language of research)</td>
<td>Researcher writes in a formal style and uses passive voice, accepted quantitative words and set definitions</td>
<td>Researcher writes in an informal style and uses the personal voice accepted qualitative terms and limited definitions</td>
</tr>
<tr>
<td>Methodological assumption (the process of research)</td>
<td>Process is deductive Study of cause and effect with a static design (categories are isolated beforehand) Research is context free Generalizations lead to prediction, explanation and understanding Results are accurate and reliable through validity and reliability</td>
<td>Process is inductive Study of mutual simultaneous shaping of factors with an emerging design (categories are identified during the process) Research is context bound Patterns and/or theories are developed for understanding Findings are accurate and reliable through verification</td>
</tr>
</tbody>
</table>

Table 4: Assumptions of the Main Paradigms  
Source: Collis & Hussey (2009:58)

The philosophical framework will direct the course of the research philosophy and is demonstrated using what can be termed as a continuum of paradigms [figure 4], which refers to the shift from positivism to interpretivism whereby the values and philosophies of one paradigm are progressively replaced with those of the other as you move along the continuum (Collis and Hussey, 2009).

Though the terms may differ, the assumptions of these research philosophies are broadly represented below in Table 5.
Positivism is an epistemological [scientific] approach to research and associated more with, but not exclusively to, the natural sciences. Positivists believe reality is independent of its actors and knowledge is gained from objective empirical findings (Collis and Hussey, 2009).

The key idea of positivism is...the social world exists externally and that its properties should be measured through objective methods, rather than being inferred subjectively through sensation, reflection or intuition (Easterby-Smith et al., 2009:57).

Positive research typically uses existing knowledge to formulate and test a hypothesis against quantitative data that has been collected ideally in a value-free environment, where the researcher is independent and does not interfere with, nor be influenced by the research (Saunders et al., 2009).

However for the social scientist, positivism is an uncompromising process, which does not readily align outcomes with the values that people attach to responses or actions. This focus on quantitative observable data whilst readily producing large quantities of
information does not necessarily support the generation of new theories (Easterby-Smith et al., 2009).

3.3 Interpretivism

Interpretivism is the contrasting epistemology to positivism (Bryman, 2004). Interpretivists recognise the influence of humans as social actors, their social construct is not necessarily determined by scientific law but their interpretation of the world around them is based on their own set of meanings (Saunders et al., 2009).

Put simply, reality is what individuals choose to believe based upon their view of the world surrounding them, which is not necessarily attributed to accepted epistemological norms but more their own values and how these contrast with the values and interpretation of others and their subsequent translation of the world in which they exist (Fisher, 2010).

Therefore it becomes difficult for a researcher to see how humans make sense of things without a developed understanding of human predispositions, which may be termed reflexivity (Fisher (a), 2010).

Reflexivity represents how the researcher interacts with the social world suggesting, unlike positivism, the researcher will never be entirely neutral when studying the social world as the epistemological and personal concepts used by the researcher form part of that world (Gray, 2009).

Reflexivity is an awkward thing for social research...It means that whatever we know about the social world can never be entirely objective (Denscombe, 2009:325).
3.4 Realism

Realism is an alternate epistemological position identifying with elements of positivism and interpretivism [Figure 4]. Realism recognises the scientific elements of positivism, in that reality is a concrete structure or process, but recognises how reality can impact on, or be interpreted by humans, thus realists allow the development of theories as opposed to the testing of hypotheses (Bryman, 2004).

Realism may be represented as, internal or critical (Easterby-Smith et al., 2009), empirical [naive] or critical (Bryman, 2004) and direct or critical (Saunders et al., 2009).

For the direct or empirical realists, the view of the world is that reality is exactly as it is seen and sensed and largely ignores underlying influences, mechanisms or structures (Bryman, 2004).

Critical realism combines epistemological subjectivity and ontological realism, consequently knowledge remains open to interpretation and experience (Gill and Johnson, 2010).

Critical realism claims there are two steps to experiencing the world. First there is the thing itself and the sensation it conveys. Second is the mental processing that goes on sometime after the sensation meets our senses... and our knowledge of reality is as a result of social conditioning. (Saunders et al., 2009:115).
Knowledge is influenced by experience as a consequence of events, which in turn are driven by mechanisms. Socially, mechanisms are generative underlying structures and processes which are not immediately apparent [examples include: cultures, beliefs, values, organisational structures or business planning etc] and cannot be directly experienced (Fisher, (a) 2010).

It is the potential for the varying causal effects of mechanisms which allow critical realists to introduce theory into research. Unlike the positivist, it is impossible to identify and isolate any single mechanism as different situations bring into play different temporary and complex mechanisms (Fisher, (b) 2010).

3.5 Philosophical Position

The principal objectives of the research are to investigate the impact of structure, culture and leadership within the NHSBT and its impact on the ability of the organisation to facilitate OL and KM.

The literature review determined that OL and KM are subject to the social forces within an organisation and that these forces are not readily measurable or consistent. Therefore a positivist approach to the research would be inappropriate as the data captured will be both subjective and value laden.

The literature review revealed how culture and leadership can impact on the performance of an organisation. Culture and leadership cannot be readily measured, it is something that is ‘felt’ within an organisation and could be an interpretivist construct of its actors. However, how knowledge is managed and coordinated may be measurable suggesting a positivistic element. Though the structure of the organisation will have an impact on this process, suggesting a realist approach may be appropriate.
Individual actors may have differing views in relation to the organisation's ability to facilitate OL and KM and the physical processes and procedures by which it is managed. Given this combination of interpretations and uses, neither a positivist nor interpretivist approach would adequately satisfy the research question, again implying a realist approach would be appropriate.

However, the framework showed the combined mechanisms of culture, structure and leadership can impact on the facilitation of OL and KM. As previously discussed, it is impossible to identify and isolate single mechanisms as different scenarios introduce differing temporary and complex mechanisms, suggesting the most appropriate research philosophy would be a critical realist.

3.6 Research Strategy

Whilst case studies are useful to investigate subjects where issues may be ambiguous or inexact, they sometimes lack representativeness (Fisher, (b) 2010), or there is sometimes a lack of logical justification for opting for a case study (Gill and Johnson, (a) 2010) and if not clearly designed, the research question, the data and its analysis are open to a range of interpretations by the researcher (Easterby-Smith et al., (a) 2009).

However, advocates of the case study such as Yin (2002) recognise the criticality of validity and seek to align their studies with the positivist approach. Conversely, interpretivists, less concerned with validity, use the case study to provide a broader view of life (Easterby-Smith et al., (a) 2009).

Using both qualitative and quantitative data [in an NHSBT context specific phenomenon], a case study may be viewed as an intermediary between the extremes of the ontological continuum and sits well with the critical realist approach identified for this proposal.
3.7  Research Methodology

It is important to note that the findings from context specific case studies are not intended to be generalised thus lack external validity [the findings of one case cannot be applied to others], but the quality of the data and subsequent reasoning, interpretation and [internal] validity, is crucial to the credibility of the case study (Bryman, (a) 2004).

\[\text{In many instances the power of the case study lies in its capacity to provide insights and resonance for the reader (Fisher, (b) 2010:70).}\]

3.7.1  Validity

A case study must have validity; that the findings represent what they appear to be. Validity is assisted by triangulation [Table 9]; the use of differing data collection techniques ensuring data are represented as accurately as possible, where the results of one research methodology are effectively cross referenced with the outcomes of others (Saunders et al., (a) 2009).

Threats to validity include past or recent events which may alter the perception of the organisation being researched. The NHSBT has recently consolidated a number of services and completed a commercial review, resulting in the restructuring or closure of some departments and subsequent redundancies. This may influence the views of those participating in the study (Bryman, (a) 2004).

The case study focused specifically on the E&F directorate [the authors’ area of work]. To date the commercial review has had a minimal impact on E&F and with low staff turnover, threats of maturation, history and mortality were considered minimal.
3.7.2 Reliability

Validity, reliability and generalisability are particularly important with regard to the quality of data. Whilst data may be valid, to ensure its quality, it must be reliable (Crowther and Lancaster, (a) 2009). Reliability is the consistency in which the same response is given when applied using different methods of assessment. Reliable data does not necessarily indicate validity, but if the assessment or measure is valid it will be reliable (Gill and Johnson, (b) 2010).

3.7.3 Generalisation

The case study investigated OL and KM in the NHSBT, focusing on E&F; however this may give rise to criticism if the outcome is used to generalise about the organisation. Challenges that may arise include; how illustrative is the case, is it unique and can it be generalised based on its findings? (Denscombe, (a) 2009). As the research took place in one part of the organisation, no claim is made to greater generalisability of the findings.

3.8 Data Collection

Given the philosophical position and research methodology approach identified for this project, three methods of data collection were undertaken; self completed questionnaires, group interviews and semi-structured interviews.

3.9 Self-Completed Questionnaires (SCQ’s)

Questionnaires are regarded as an efficient tool for the collection of quantitative data, though their range and types vary significantly in terms of structure, administration, analysis and explanation, all of which can be a complex activity (Crowther and Lancaster, (b) 2009).
Two fundamental drawbacks with using questionnaires are ‘questionnaire fatigue’, the reluctance of people to respond because of the number of times they are approached to complete questionnaires and ‘non-response bias’, which is what to do when questionnaires are not returned. To overcome this all respondents were pre-contacted, incentivising the questionnaire [in terms of feeding back the results], keeping questions focussed and relevant and used a follow up approach (Saunders et al., (b) 2009). Other strengths and weaknesses of the SCQ’s are illustrated in Table 9.

The objectives of the research; to understand the impacts of culture, structure and leadership on OL and KM is an explanatory study. That is; to study a condition to explain the relationships between the variables (Saunders et al., (a) 2009).

The questionnaires were used for explanatory research (Saunders et al., (b) 2009), to allow quantitative analysis of variables which were then used to assist in the structure of the subsequent qualitative focus group and semi structured interviews, which in turn help to validate the findings of the questionnaires as part of a multi-strategy research approach and helped achieve triangulation (Bryman, (b) 2004).

Data collected by the questionnaire was used to collect opinion variables to record how people feel about structure, culture and leadership and what they believe to be true or false in terms of OL and KM. The data collected also includes behavioural variables, such as what people do [or have done] or intend to do in the future and an element of attribute variables such as status and time spent in the organisation (Saunders et al., (b) 2009).
3.9.1 Pilot Questionnaires

To avoid misinterpretation, the questionnaire followed five basic principles; that each question expressed only one idea, used only plain language, had simple expressions, avoided the use of negative statements and did not use leading questions (Easterby-Smith et al., (b) 2011). However Devaus (2002) suggests that to avoid habitual positive or negative responses that alternate statements should be introduced, forcing the respondent to consider their answer.

The questionnaire was piloted using colleagues who have previously worked within, or are familiar with the directorate, comprising of one middle, two senior managers and three administrators/senior administrators.

The purpose of the pilot test and subsequent feedback allowed assessment of validity and reliability, tested the ‘face validity’ of the questionnaires [did the questions make sense], identified which questions were unclear, ease of completion and allowed questions to be refined in order to ensure they were fully understood by the respondents (Saunders et al., (b) 2009).

3.9.2 Sample Size

With a combination of administrators, junior, middle and senior managers, E&F has a total population of 68. As the directorate is a national function with a presence in every main blood centre and to represent the department in its entirety, questionnaires were sent to all E&F Staff as shown in Table 6.

3.9.3 Return Rate

The composition of the E&F Department is 7% senior managers, 40% middle managers and 57% senior administrators/administrators.
The overall return rate for SCQ's was 86%, comprising 96% [North], 91% [South West] and 70% [South East]. 46% of respondents were male, 54% female; 3% of respondents worked for NHSBT for less than 12 months, 32% between 12 months and 5 years, 36% between 5 and 10 years and 29% more than 10 years [See Appendix 5].
<table>
<thead>
<tr>
<th>Location</th>
<th>Positions</th>
</tr>
</thead>
</table>
| Birmingham    | 1 x Deputy Director Estates and Logistics  
                 1 x Estates & Facilities Manager  
                 1 x Deputy Estates & Facilities Manager  
                 3 x E&F Administrator/Senior Administrators |
| Brentwood     | 1 x Regional Estates & Facilities Manager  
                 1 x Estates & Facilities Manager  
                 3 x E&F Administrator/Senior Administrators |
| Bristol       | 1 x Regional Estates & Facilities Manager  
                 1 x Senior Estates & Facilities Manager  
                 1 x Estates & Facilities Manager  
                 3 x E&F Administrator/Senior Administrators |
| Cambridge     | 1 x Estates & Facilities Manager  
                 1 x Deputy Estates & Facilities Manager  
                 1 x E&F Senior Administrator |
| Colindale     | 1 x Estates & Facilities Manager  
                 1 x Deputy Estates & Facilities Manager  
                 4 x E&F Administrator/Senior Administrators |
| Leeds         | 1 x Estates & Facilities Manager  
                 1 x Deputy Estates & Facilities Manager  
                 1 x E&F Administrator/Senior Administrator |
| Liverpool     | 1 x National Technical Manager  
                 1 x Estates & Facilities Manager  
                 2 x Deputy Estates & Facilities Managers  
                 2 x E&F Administrator/Senior Administrators |
| Manchester    | 1 x Head of Estates & Facilities  
                 1 x Estates & Facilities Manager  
                 2 x Deputy Estates & Facilities Managers  
                 4 x E&F Administrator/Senior Administrators |
| Newcastle     | 1 x Estates & Facilities Manager  
                 1 x Deputy Estates & Facilities Manager  
                 3 x E&F Administrator/Senior Administrators |
| Oxford        | 1 x Deputy Estates & Facilities Manager  
                 2 x E&F Administrator/Senior Administrators |
| Sheffield     | 1 x Estates & Facilities Manager  
                 1 x Deputy Estates & Facilities Manager  
                 4 x E&F Administrator/Senior Administrators |
| Southampton   | 1 x Senior Estates & Facilities Manager  
                 1 x Deputy Estates & Facilities Manager  
                 3 x E&F Administrator/Senior Administrators |
| Tooting       | 1 x Estates & Facilities Manager  
                 1 x Deputy Estates & Facilities Manager  
                 3 x E&F Administrator/Senior Administrators |
| Total Respondents | 68                             |
3.10 Focus Group Interviews

Interviews serve a number of purposes; from gaining an insight into people’s knowledge, values and understanding, to identifying variables and their relationships and can be used in conjunction with other research techniques such as questionnaires (Cohen and Manion, 2000). They are a valuable source of qualitative data when attempting to gain an insight into people’s feelings, experience and understanding (Denscombe, (b) 2009).

Interviews can be used to probe and explore responses and investigate cause and effect in a way that cannot be achieved using questionnaires. In interviews the researcher can also observe unwritten signals such as body language, hand signals and facial expressions that would otherwise be concealed and allows the researcher to adapt his style or question as appropriate to elicit a response (Bell, 1999).

Interviews are challenging because of the interaction between interviewer and respondent. When completing interviews the researcher must be mindful so as not to introduce ‘interviewer bias’, but at the same time be able to demonstrate credibility in the subject matter without influencing the interviewees responses, known as ‘response bias’. These effects can call into question data reliability, validity and generalisability (Saunders et al., (c) 2009).

In group interviews it is the responsibility of the researcher to:

*Explain its purpose, to encourage participants to relax, and to initiate their comments and, with focus groups, detailed discussion....encouraging participants to provide answers to a particular question or questions that you introduce...to reveal data that provide you with important insights (Saunders et al., (c) 2009:345).*
In focus groups, the researcher must moderate skilfully, ensuring that dominant parties do not emerge whilst others remain reserved. If this occurs, the researcher may be reporting findings which are neither fully supported nor discounted (Saunders et al., (c) 2009).

The term focus group is used here to identify a non-standardised interview where two or more respondents are present, the participants selected were chosen using non-probability sampling (Saunders et al., (c) 2009), with a specific purpose to consider the impact of structure, culture and leadership on OL and KM in the NHSBT.

3.10.1  Sample Size

In the E&F directorate there are 5 functional groups that support the E&F operation. Within each group there are representatives from across the directorate, providing a broad mix of management views and opinions from different regions in the same groups. These groups represent 74% of the entire management structure and were used to undertake focus group interviews [FGI’s].

However there was no representation from the administrative teams in these groups [who form an integral part of E&F]. Applying hierarchical deference, three additional focus groups were formed and interviewed exclusively in the absence of the management teams for whom they work. Each group comprised 100% of all administrators from the region in which they function.
**Table 7: Focus Groups within E&F**

<table>
<thead>
<tr>
<th>Operational Development Group</th>
<th>FG1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional Estates &amp; Facilities Manager</td>
<td>North</td>
</tr>
<tr>
<td>Estates &amp; Facilities Manager</td>
<td>Liverpool</td>
</tr>
<tr>
<td>Estates &amp; Facilities Manager</td>
<td>Cambridge</td>
</tr>
<tr>
<td>Deputy Estates &amp; Facilities Manager</td>
<td>Bristol</td>
</tr>
<tr>
<td>CAFM System Manager</td>
<td>Manchester</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Safety Health &amp; Environmental Group</th>
<th>FG2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional Estates &amp; Facilities Manager</td>
<td>South East</td>
</tr>
<tr>
<td>Senior Estates &amp; Facilities Manager</td>
<td>Bristol</td>
</tr>
<tr>
<td>Estates &amp; Facilities Manager</td>
<td>Newcastle</td>
</tr>
<tr>
<td>Estates &amp; Facilities Manager</td>
<td>Birmingham</td>
</tr>
<tr>
<td>Deputy Estates &amp; Facilities Manager</td>
<td>Colindale</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Standards &amp; Governance Group</th>
<th>FG3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional Estates &amp; Facilities Manager</td>
<td>South West</td>
</tr>
<tr>
<td>Estates &amp; Facilities Manager</td>
<td>Bristol</td>
</tr>
<tr>
<td>Estates &amp; Facilities Manager</td>
<td>Leeds</td>
</tr>
<tr>
<td>Estates &amp; Facilities Manager</td>
<td>Tooting</td>
</tr>
<tr>
<td>Deputy Estates &amp; Facilities Manager</td>
<td>Liverpool</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Statutory Compliance &amp; Projects Group</th>
<th>FG4</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Technical Facilities Manager</td>
<td>National</td>
</tr>
<tr>
<td>Deputy Technical Facilities Manager</td>
<td>National</td>
</tr>
<tr>
<td>Estates &amp; Facilities Manager</td>
<td>Sheffield</td>
</tr>
<tr>
<td>Estates &amp; Facilities Manager</td>
<td>Brentwood</td>
</tr>
<tr>
<td>Deputy Estates &amp; Facilities Manager</td>
<td>Newcastle</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Communications Group</th>
<th>FG5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior Estates &amp; Facilities Manager</td>
<td>South West</td>
</tr>
<tr>
<td>Estates &amp; Facilities Manager</td>
<td>Manchester</td>
</tr>
<tr>
<td>Estates &amp; Facilities Manager</td>
<td>Colindale</td>
</tr>
<tr>
<td>Deputy Estates &amp; Facilities Manager</td>
<td>Bristol</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Administration Focus Group 1</th>
<th>FG6</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 x Facilities Administrators/Senior Administrators</td>
<td>North</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Administration Focus Group 2</th>
<th>FG7</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 x Facilities Administrators/Senior Administrators</td>
<td>South West</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Administration Focus Group 3</th>
<th>FG8</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 x Facilities Administrators/Senior Administrators</td>
<td>South East</td>
</tr>
</tbody>
</table>
3.11 Semi-Structured Interviews

The semi-structured interview [SSI] is an appropriate method of research when:

\[
\text{It is necessary to understand the constructs that the respondents uses as a basis for his or her opinions and beliefs about a matter or situation (Easterby-Smith et al., (c) 2011:145).}
\]

Face-to-face SSI’s were undertaken after the conclusion of the FGI’s to gain a deeper understanding of what people believed about the impact of structure, culture and leadership and its impact on OL & KM and complete the process of triangulation for this research proposal.

The qualitative nature of the SSI shares many similarities in terms of the strengths and the weaknesses of the unstructured FGI [Table 9]. Its differences lie in the fact that these interviews are held in a one-to-one situation between the researcher and respondent and there is a definite theme to the conversation (Saunders et al., (c) 2009).

The SSI has a more defined structure [but not highly structured] than the focus group and the researcher had a theme on which the interviews were based. Unlike the questionnaire which typically uses closed questions, the SSI used more open questions, allowing the researcher to probe the respondent on responses to questions and even explore alternate themes based on the respondents’ answers. (Easterby-Smith et al.,(c) 2011).

SSI’s do run a higher risk of greater interviewer bias, as the respondent may feel under pressure to give the researcher the answer they think they might want to hear and it is therefore essential that researcher sets the scene for the respondent at the outset of the
interview to define the theme, set the respondent at ease and ensure that no bias is introduced. (Easterby-Smith et al., (c) 2011).

Crucial skills of the researcher in completing the SSI are to ensure questions are clearly articulated and interpreted correctly by the respondent and recognise what is relevant in their responses. This requires the researcher to be perceptive and sensitive to responses but without influencing them and not only listen to what is being said but also to observe non-verbal responses at the same time. Therefore it is useful for the researcher to occasionally clarify with the respondent by summarising what has been said at appropriate intervals (Easterby-Smith et al., (c) 2011).

Participants of FGI’s and SSI’s were given full assurance in respect of confidentiality and anonymity and were asked to treat the interviews as an opportunity to genuinely contribute to the research project. All interviews were recorded with the full permission of the participants.

3.11.1 Sample Size

To gain an overall and concluding in-depth view [and achieve triangulation], SSI’s were held with [randomly selected] representative administrators and managers from within each of the 3 regions and 4 representatives from the senior national management team.
### Table 8: Respondents Identified for SSIs

<table>
<thead>
<tr>
<th>Administration</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Administrator/Senior Administrator</td>
<td>North</td>
</tr>
<tr>
<td>1 Administrator/Senior Administrator</td>
<td>South East</td>
</tr>
<tr>
<td>1 Administrator/Senior Administrator</td>
<td>South West</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Middle Managers</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Estates &amp; Facilities Manager</td>
<td>North</td>
</tr>
<tr>
<td>1 Estates &amp; Facilities Manager</td>
<td>South East</td>
</tr>
<tr>
<td>1 Estates &amp; Facilities Manager</td>
<td>South West</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Senior Manager</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4 Senior National/Regional Managers</td>
<td>National</td>
</tr>
</tbody>
</table>
3.12 **Review of Methodology to Achieve Triangulation**

Table 9 illustrates a comparison of the three methods used demonstrating how triangulation can be achieved.

<table>
<thead>
<tr>
<th>Table 9. Metaphorical Bridge and Triangulation Methodology</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Self Completed Questionnaires</strong></td>
</tr>
<tr>
<td>Planning and design can be time consuming (including reliability, validity &amp; piloting)</td>
</tr>
<tr>
<td>Respondent has no subject knowledge or detailed information</td>
</tr>
<tr>
<td>Researcher can only interpret the data presented, there is no interaction with the respondent</td>
</tr>
<tr>
<td>Inflow of data is quick and from many people</td>
</tr>
<tr>
<td>Respondents can complete at their own leisure</td>
</tr>
<tr>
<td>Data analysis is relatively simple</td>
</tr>
<tr>
<td>Respondents anonymity can be assured</td>
</tr>
<tr>
<td>There is a lack of interviewer bias</td>
</tr>
<tr>
<td>Questions can be mis-read or misleading and cannot be changed</td>
</tr>
<tr>
<td>Questions can be closed and easily analysed</td>
</tr>
<tr>
<td>Questions can measure opinion, behaviour and attributes</td>
</tr>
<tr>
<td>Questionnaire can be time consuming and tiring</td>
</tr>
<tr>
<td>Data is recent</td>
</tr>
<tr>
<td>Data is of higher quality</td>
</tr>
<tr>
<td>Lack of respondents limited data</td>
</tr>
<tr>
<td>Respondents may be unconcerned and gib</td>
</tr>
<tr>
<td>Questionnaire fatigue</td>
</tr>
<tr>
<td>Low cost in terms of time</td>
</tr>
<tr>
<td>Low cost in terms of expense</td>
</tr>
</tbody>
</table>

3.13 **Ethics**

There are varying philosophies in respect of ethics from deontological to teleological and utilitarianism to ethical relativism and ethical objectivism and it is evident there is no guiding tenet which determines any single research processes (Crowther and Lancaster, (b) 2009).

Essentially ethics is about protecting the interests of the research respondents, accuracy and lack of bias, summarised in Table 10 below.
The author adapted these general principles for this research proposal, as well as following both the university’s and the NHSBT codes of ethics in research.

3.14 Cross Mapping Matrix

The cross mapping matrix [Table 11] demonstrates how triangulation of each of the selected methods of data collection will occur for the objectives of the research and how these objectives align themselves with the principal elements of the CF: Structure, Culture and Leadership and their influence on OL & KM.

<table>
<thead>
<tr>
<th>Table 10: Key Principles in Research Ethics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>6</td>
</tr>
<tr>
<td>7</td>
</tr>
<tr>
<td>8</td>
</tr>
<tr>
<td>9</td>
</tr>
<tr>
<td>10</td>
</tr>
</tbody>
</table>

Source: Easterby-Smith et al., (d) 2011
<table>
<thead>
<tr>
<th>Research Objectives</th>
<th>Elements of the Conceptual Framework</th>
<th>SCQ</th>
<th>FGI</th>
<th>SSI</th>
<th>SCQ</th>
<th>FGI</th>
<th>SSI</th>
<th>SCQ</th>
<th>FGI</th>
<th>SSI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structure</td>
<td>5A, 5B, 5C, 5D, 5E</td>
<td>FG1, FG2, FG3, FG4, FG5, FG6</td>
<td>S1, S2, S3, S4, S5, S6, S7, S8, S9</td>
<td>5F, 5G, 5H, 5I, 5J, 6E, 6F, 6G, 6H, 6I</td>
<td>FG11, FG12, FG13, FG14, FG15, FG16, FG17</td>
<td>S12, S13, S14, S15, S16, S17, S18</td>
<td>5K, 5L, 5M, 5N, 6J, 6K, 6L, 6M, 6N</td>
<td>FG22, FG23, FG24, FG25, FG26, FG27, FG28</td>
<td>S22, S23, S24, S25, S26, S27, S28, S29, S30</td>
<td></td>
</tr>
<tr>
<td>Culture</td>
<td>6A, 6B, 6C, 6D</td>
<td>FG7, FG8, FG9, FG10, FG11, FG12, FG13, FG14, FG15, FG16, FG17</td>
<td>S10, S11, S12, S13</td>
<td>7E, 7F, 7G, 7H, 7I, 7J, 7K, 7L</td>
<td>FG18, FG19, FG20, FG21, FG22, FG23, FG24, FG25, FG26, FG27, FG28</td>
<td>S19, S20, S21, S22, S23, S24, S25</td>
<td>7I, 7J, 7K, 7L</td>
<td>FG29, FG30, FG31, FG32, FG33, FG34</td>
<td>S31, S32, S33, S34</td>
<td></td>
</tr>
<tr>
<td>Leadership</td>
<td>7A, 7B, 7C, 7D</td>
<td>FG1, FG2, FG3, FG4, FG5, FG6</td>
<td>S1, S2, S3, S4, S5, S6, S7, S8</td>
<td>5F, 5G, 5H, 5I, 5J, 6E, 6F, 6G, 6H, 6I</td>
<td>FG11, FG12, FG13, FG14, FG15, FG16, FG17</td>
<td>S12, S13, S14, S15, S16, S17, S18</td>
<td>5K, 5L, 5M, 5N, 6J, 6K, 6L, 6M, 6N</td>
<td>FG22, FG23, FG24, FG25, FG26, FG27, FG28</td>
<td>S22, S23, S24, S25, S26, S27, S28, S29, S30</td>
<td></td>
</tr>
</tbody>
</table>

Table 11: Cross Mapping Matrix

To critically appraise the organisational structure of the NHSBT with regard to its facilitation of knowledge management and organisational learning.

To critically appraise the organisational culture of the NHSBT and how this impacts on its ability to share knowledge and work collaboratively as a unified organisation.

To critically appraise how structure and culture and the ability to share knowledge is influenced by the leadership of the organisation.
Chapter 4

Research Findings and Analysis

4.1 Introduction

The literature review in chapter 2 presented a CF centred around organisational structure, culture and leadership and its influence on OL & KM. Chapter 3 presented the authors philosophical position and discussed the methodology of how this phenomena would be researched using SCQ’s, FGI’s and SSI’s.

The research findings, analysis and commentary are presented here; constructed around the principal elements of the CF, to address the primary objective of whether the NHSBT operates as a unified learning and knowledge sharing organisation.

Data presented in bar-chart format represents the SCQ’s analysis; a regional breakdown is presented in Appendix 6.

Information from the FGI’s and SSI’s is represented in the narrative and the outline questions are presented in Appendices 7 and 8.
4.2 Structure

As illustrated in Table 12, 59% of SCQ respondents disagreed with the statement; ‘the structure of the NHSBT limits knowledge creation’, similarly, 59% disagreed that ‘structure limits knowledge sharing’.

The management FGI’s validated this view; all participants agreed the structure of the directorate did not appear to restrict knowledge creation or sharing. Though when asked how this was undertaken, the monthly, national, regional and E&F functional group meetings were cited as being the recognised platform for sharing knowledge.

The E&F functional groups are responsible for developing the directorate in terms of processes, performance, health and safety, statutory compliance and communications [Table 7]. This format represents two of the three levels of leadership that Senge (2007) argues is requisite for OL in terms of localised leaders and networkers (Senge, 2007).

However, in the administration FGI’s, the finding differed in terms of whether knowledge is readily shared or disseminated. Local managers readily share knowledge [when asked], but a significant number of administrators were generally unaware of the existence of
the E&F functional groups or wider directorate information. Given the demographic split between management and administration respondents to the SCQ’s, this underpinned the 40% of respondents who considered that the structure of the organisation did restrict knowledge sharing.

This was triangulated in the SSI’s; it was identified that managers shared [some] knowledge, but when it came to service delivery or technical matters some administrators are left out of the loop. They stated these discussions were held at a more senior level and validated the 59% of respondents who agreed; ‘the hierarchy and structure of the directorate prevents best practices from being shared’.

*One of the great things is that we learn a lot from them [managers] when we get to hear their day-to-day discussions.*

In respect of departments working as silos; SCQ’s showed a high degree of interaction at site level between the local directorates, ~64%, though 57% of respondents believe the directorates nationally work as silos, this was validated in the management FGI’s and SSI’s:

*Locally we all support each other, but nationally there does not seem to be much interaction, there doesn’t seem to be a lot of joined up thinking.*

*The geography of the organisation prevents good communication and knowledge sharing.*

*The organisation still very much works in the silo mentality.*
Table 13 indicates the NHSBT uses ‘two-way communication on a regular basis’, ~79%, though conversely, ‘communication is from line management down’ scored 78%.

This ‘contradiction’ was validated during FGI’s; participants agreed two-way communication is excellent at site level. However it was also felt that a lot of communication is passed down from line management, with most staff reporting they felt they do not get the opportunity to communicate back -

*We do not have a problem communicating locally,*  
*but we do have a problem with communication nationally...there doesn’t seem to be much interface.*

In the FGI’s there was strong opinion that ‘information’ coming from senior management ‘*feels more like a series of instructions*’; reinforcing the findings of the SCQ’s where only 32% of respondents felt information is passed freely around the organisation.

In the management FGI’s, participants were asked in respect of reviewing lessons learned, most responded that this was done frequently using multiple channels within the organisation, supporting the outcome of the SCQ’s ~57%.
However the administration FGI’s raised concerns that these reviews create too much information, which is often circulated with insufficient instruction or direction, giving staff a sense of being ‘overloaded with instruction rather than included in discussion’ and correlated with the 43% of staff who felt locally the department did not spend time reviewing lessons learned.

Table 14 illustrates respondents positively agreed that problems in the workplace are seen as an opportunity to learn ~73%. This was triangulated in both SSI’s and FGI’s; there was an overwhelming view that problems in the workplace are seen as an opportunity learn:

In E&F we are good at adapting.

We definitely learn from our problems.

However in the SCQ’s, the responses to sharing knowledge and learning from other departments all scored circa 50%, this was validated in FGI’s and SSI’s, some participants advised they regularly share knowledge and lessons learned with other departments, others felt they did not and only shared knowledge on an as required basis -
It depends on what the issue is...

We share our knowledge at site meetings, quality reviews, it's ongoing...

Some participants believed that sharing the outcomes of regulatory audits was a form of sharing lessons learned, others believed day-to-day interaction between directorates was another.

**Commentary**

OL encompasses processes to capture and convert tacit knowledge to improve performance (Carnall, 2007). Other than routine monthly meetings, there is no other formal platform to share knowledge within the directorate. Administrators, who form an integral part of the directorate, need to have greater visibility of directorate operations if they are to contribute towards OL and KM.

The current structure, in particular for the administrators limits the ability to readily share best practice and site experience with peer colleagues across the directorate. Where people can better understand what others do, it allows them to evolve, learn, adapt and contribute to OL (Senge, (b) 2006).

Site managers are recognised as the conduit for transferring knowledge and feeding information back and forth between the national and local structure and it was evident in SSI’s with the senior managers that they see this as crucial to effective knowledge transfer and communication within the directorate. For OL to occur; there must be effective links between individuals, groups and the organisation, (Hislop, 2009).

There was an overwhelming assumption that this communication takes place regularly and that feedback from the ‘shop floor’ is readily
escalated, however in the administration FGI’s it became evident that key issues and learning is not always readily escalated by the site managers. Site managers need to understand that how knowledge is translated and distributed is a key ingredient for successful OL and KM (Bhatt, 2001; Greiner et al., 2007; Jasimuddin, 2008; Metaxiotis et al., 2005 Pemberton and Stonehouse, 2000).

Communication overall is good within the directorate, though communication from senior management is misconstrued as being one-way and has fallen foul of some criticism. Senior managers need to consider the impact of how information is passed through the directorate to avoid misinterpretation.

Senior managers, attempt to keep staff informed as much as possible. However due to the geographic structure of the organisation a lot of information and instruction is transferred electronically throughout the directorate and its meaning can get lost in translation it is important to recognise that information cannot be divorced from attitudes and values (McMahon et al., 2004; Mullholland et al., 2000) as this impacts on KM.

There is an assumption that learning and knowledge is being distributed around the local teams, but the interviews confirmed this is not always the case: ‘Up to 70% of workplace learning is informal’ (De Wit and Meyer, (a) 2004) and it is evident that knowledge, learning and experience is not being captured from local administration teams and shared across the directorate.

During the course of the interviews, administrators advised of inherent problems using a number of national [knowledge] systems, including the national security system, the helpdesk system and document control. One of the fundamental problems with KM systems is that they treat knowledge like any other resource; and fail to recognise essential knowledge is often transferred between people, by stories, observation and social interaction (De Wit and
Meyer, (a) 2004). The problems discussed with the NHSBT national systems run the risk of alienating users (Rizzi et al., 2009) and have not been escalated to senior management for action.

4.3 Culture

<table>
<thead>
<tr>
<th>Table 15: Culture Objective 1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>6a. Blood Centres do not communicate with each other.</strong></td>
</tr>
<tr>
<td><strong>6b. In the NHSBT we focus on departmental tasks and on how well the department is working.</strong></td>
</tr>
<tr>
<td><strong>6c. The sharing of knowledge is left only for the senior managers.</strong></td>
</tr>
<tr>
<td><strong>6d. Colleagues openly discuss mistakes in order to learn from them.</strong></td>
</tr>
</tbody>
</table>

Table 15 illustrates 49% of SCQ respondents agreed that blood centres do not communicate with each other. This was validated in the FGI’s and SSI’s: There was an equal split between managers and administrators. Managers reported they regularly communicated with peer colleagues from other sites, but administrators felt that centres did not communicate well at all, comments included:

> We know the sites work differently, but there is still a lot we could learn from each other.
> You could build a wall around each centre and the whole service would still function.
> We tend not to get to hear about what initiatives or what other centres do.

Management FGI’s noted each site has a different focus; subject to which products are manufactured or what process are undertaken. Some are more research biased, some undertake a variety of
functions and some more specialised, these differing elements were cited as contributory factors in terms of communication –

*The focus of the centre determines its behaviour and culture...do the regional and national managers fully understand these cultures?*

Managers discussed how these differences affect delivery of the E&F service at site level. It was evident in most of the interviews that teams are heavily focussed on their own site and performance, triangulating with the 85% of respondents in the SCQ’s who agreed with the statement ‘we focus on how well the department is working’.

When asked to define the culture of the organisation, interviewees offered varying and contradictory responses; underpinning the theory that organisational culture is difficult to describe precisely (Brown, (a) 1998, Johnson et al., (b) 2008; Finlay, (b) 2000; Schein, (a) 2010). Participant definitions included:

‘a silo mentality’, ‘old school’ ‘autocratic’, ‘incestuous’
‘bureaucratic’, ‘democratic’, ‘consultative’ and ‘charitable’.

Cementing the observation; in large organisations there is rarely a homogeneous culture, but often nested, overlapping and sometimes competing sub-cultures (Brown, 1998). However the group interviews confirmed that within E&F there is an open culture and participants from both SSI’s and FGI’s agreed that knowledge is shared throughout the directorate and not just by senior managers, validating the 69% outcome of the SCQ’s.

In the FGI’s the view that colleagues openly discussed mistakes in order to learn from them was held more by the managers than administrators aligning with the SCQ’s ~ 57% outcome This was validated in the SSI’s; managers tended to discuss mistakes within
the management team environment and not necessarily with the local team.

![Table 16: Culture Objective 2](image)

In Table 16 it is evident there is a healthy culture of communication within the organisation with positive responses in respect of sharing knowledge, ~85%, listening to colleague’s views, ~73%, seeking opinions, ~69%, treating each other with respect, ~79% and interacting with other colleagues to help solve problems ~85%.

Questioning in the FGI’s validated that at site level there is a high degree of collaboration between departments/directorates, triangulating the findings of the SCQ’s. Though it was felt that in the wider national structure of the NHSBT this is not necessarily the case. Comments from the FGI’s affirm Senge’s (2006) view that new, or in the case of the NHSBT, national infrastructures, do not necessarily lead to more collaboration, but may be used to reinforce existing cultures at local level (Senge, (c) 2006).

The SSI’s triangulated with the FGI’s; at site level there is a healthy operational culture between departments. However in the management SSI’s there was debate that directorates at national
level are perhaps not collaborating as much as they should and could do more to understand each other -

*Cross directorate working is not encouraged at higher levels but works well at local level.*

*Maybe they don’t want to know [senior managers], they are conducting the orchestra, not playing the violin.*

Table 17 illustrates respondents believe the organisation, ~71% and directorate, ~79%, promotes learning from experience but does not encourage employees to take calculated risks ~80%.

Table 17 also illustrates there is a belief that the organisations actions are consistent with its values, ~75% and recognised the importance of knowledge management and learning, ~73%, all of which are positively related to OL and KM (Perez Lopez et al., 2004; Suppiah and Sandhu, 2011; Al-Alawi et al., 2007; Oliver and Kandadi, 2006; Pyoria, 2007; Park et al., 2004), but this could not be triangulated with the findings from either the FGI’s or SSI’s.
Across all interviews there was a strong opinion that the organisation presents itself as encouraging staff to learn from experience, but when it comes to putting learning into practice, this is more rhetoric than reality. Most participants reported they felt the organisation is risk averse and the positive approach to learning from experience was realistically encouraged at local level only.

The ability of the organisation to adapt and learn as a whole was called into question across most of the interviews. Managers and administrators expressed frustration at not being able to 'just get on and try new ideas'. In large stable environments, change can be slow (Daft, (a) 1998) and responses to innovation can be low (Brooks, 2009) and learning can be slow.

Senior managers seem unable or unwilling to make decisions that could improve the operation of the organisation.

The organisation is scared to step out of its comfort zone, focuses too much on policy – we need to loosen up a little.

There’s too much self preservation...we are light years behind the real world

Examples of the failure to implement the use of new technologies, processes and operating procedures were all cited, with one observer noting -

It’s like walking through the park where there are signs saying don’t walk on the grass and when we come up to these signs we simply agree...why can’t we just step on the lawn now and again and see what happens.
Commentary

Communication between the sites is limited and facilitated within the directorate by monthly national, regional and functional group meetings and where applicable, local team briefings. These clearly aid communication within the directorate. This is complimented by the open culture that exists within the directorate, where information and knowledge is readily shared.

However the administrators evidently felt they could add more value to the directorate if they could communicate with each other more as a group. Learning is anchored to the group in which it is learned, if managed correctly the relevance and context helps spread common thinking and experience (Handy, 1999) and is successful when structure people and systems are aligned with each other (Hayes, 2010).

Managers reported it is the focus of the centre which determines its behaviour and culture and clearly articulated that the culture of the centre is ‘the way things get done around here’ (Luffman et al., 1998:20; Pettinger, 1996:393), which in turn affected how the site managers viewed their own position at site level against the backdrop of the national infrastructure. However it is important for the site managers [as leaders] to recognise the cultures that surround them otherwise there is a risk that those cultures will manage them (Schein, (a) 2010).

There is a strongly held and recurring view that directorates at national level are not seen to be collaborative, opposing cultures are a key inhibitor to successful OL and KM (McDermott and O’Dell, 2001; Tuggle and Shaw, 2000). However, the collaborative site culture discussed in the FGI’s has a positive influence on local performance (Perez Lopez et al., 2004) but the rather negative cultural view of the national structure reinforces Schein’s (2010) view
that culture is subject to its relationship with the environment in which it sits (Schein, (a) 2010).

Negative comments surrounding culture focussed around the perceived lack of ‘joined up thinking’ within the wider structure of the organisation and its leadership. It was felt that, a lack of understanding between directorates nationally, the inability to embrace change and a competing professional environment, i.e. medical professionals, manufacturing specialists, researchers, engineering, procurement, human resources, logistics and I.T., cause tension in the wider organisation impacting on organisational performance.

It is perhaps this national professional environment which has a bearing on the ability of the organisation to learn positively from its experiences at local level. Managers and administrators evoked a sense wanting to add value to the organisation, but the organisation as a whole appears somewhat intransigent to change, clearly affecting the view of site based staff.

KM is a discipline which requires an integrated collaborative approach to process experience knowledge and information (Gartner Group, 2011) and embraces infrastructure and theories from other disciplines (Saatcioğlu and Sezgin, 2009; Perez Lopez et al., 2004) and undoubtedly linked to OL (Mishra and Bhaskar, 2011; Sanz-Valle et al., 2011).
4.4 Leadership

Leaders create change by reinforcing development processes (Atwood et al., 2010), Table 18 shows 81% of staff agreed the organisation ensures staff are given time to support their learning objectives. This was triangulated in both FGI’s and SSI’s, where the importance of learning and development was recognised by all participants.

All managers acknowledged the commitment of the organisation in respect of learning and development and how this was reflected in the directorate -

*I have never worked anywhere like this...where there is such support for learning and development.*

*There is no doubt we are committed to learning and development.*

Administration staff concurred, the organisation and its managers are committed to the learning and development, and several staff reported they are currently undertaking additional learning, including university degrees, national vocational qualifications and internal leadership courses.

There was a positive response in the SCQ’s in respect of knowledge exchange within the directorate: locally ~83% and nationally ~78%.
The management FGI’s attributed good knowledge exchange to the E&F functional groups which are constantly reviewing the ability and performance of the directorate in terms of statutory compliance, best practices and the ever changing demands of the organisation. These groups then feed their knowledge to the individual sites via their routine team meetings. The administrators also agreed that they felt knowledge exchange was good within the local department, only a minority reported differently.

69% of SCQ’s agreed there was no reward for knowledge sharing and was a source of contention during the FGI’s. The lack of a reward scheme resonated throughout most of the interviews, managers and staff identified numerous instances of ‘going the extra mile’ and yet had failed to be officially recognised or rewarded –

"We have saved the organisation £1000’s with our projects and ideas, but have we been thanked for it...no..where’s the incentive, there isn’t one."

In the SSI’s participants were somewhat less vocal, but advised that line managers within the directorate recognised and thanked staff for doing a good job and any gestures of recognition were managed locally and not necessarily recognised by the organisation.

Table 19: Leadership Objective 2

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>7e</td>
<td>28%</td>
<td>52%</td>
<td>2%</td>
<td>18%</td>
</tr>
<tr>
<td>7f</td>
<td>20%</td>
<td>41%</td>
<td>32%</td>
<td>46%</td>
</tr>
<tr>
<td>7g</td>
<td>20%</td>
<td>53%</td>
<td>46%</td>
<td>44%</td>
</tr>
<tr>
<td>7h</td>
<td>20%</td>
<td>51%</td>
<td>44%</td>
<td>44%</td>
</tr>
</tbody>
</table>

7e. As a directorate we actively share our knowledge.
7f. As an organisation we are encouraged to openly share knowledge with other directorates.
7g. In the NHSBT, Managers empower others to help carry out the organisation’s vision.
7h. In the NHSBT, there is a culture where Managers mentor and coach those they lead.
In the FGI’s and SSI’s managers agreed, the sharing of knowledge is very good within the directorate, attributing this to the professionalism of the directorate which has been nurtured since it was restructured some seven years ago, with several of the groups citing the relatively new management team for creating this culture of knowledge sharing triangulating with the 66% of SCQ respondents who agreed that knowledge sharing was good as illustrated in Table 19.

The administration groups agreed knowledge is shared, but is prevalent where the site manager undertakes regular team briefings. Completing a straw poll during the administrator FGI’s, approximately one third advised they did not have regular team meetings, validating with the 34% of SCQ respondents who disagreed that knowledge is actively shared.

The subject of sharing knowledge resulted in an almost 50/50 split in the SCQ’s and when questioned in the FGI’s most participants felt that at site level there was a healthy [but not conscious] knowledge exchange between operational directorates. SSI’s with staff identified they are not necessarily encouraged to network with other directorates, but felt there are established relationships between most directorates at site level and knowledge is exchanged on an as required basis, suggesting that the 50/50 split is an accurate assessment of how knowledge is shared between directorates.

Table 19 shows 55% of respondents felt that managers empower others and 53% believe there is a culture of mentoring and leadership. In the FGI’s and SSI’s all the site managers believed they were empowered [by their senior managers], however they cautioned that the bureaucracy of the organisation was a limiting factor in terms of freedom to act. Given the demographic profile of respondents, the outcome of the SCQ’s was triangulated in the administration FGI’s where most participants advised they did not feel empowered.
In the SSI’s, senior managers were clear; site managers play a pivotal role within the organisation and as such are given the empowerment to manage their sites and staff accordingly -

We do empower our managers, but they are constrained by organisational policy and procedure.

I empower my team to sort out any problems, but as an organisation we are more about structure and process...we are more transactional than transformational.

During several management FGI’s and SSI’s, there was an emerging view that a lack of leadership and direction from the board of directors adds to the transactional nature of the organisation and permeates throughout the directorates with one participant observing;

The trouble with the leaders of the organisation is they don’t take people on the journey and we are struck down by process and procedures.

The findings noted also validated the last section of the SCQ’s as shown in Table 20; 76% of respondents felt there was no reward for the achievements of the department, 70% of staff believe their [local] leaders look for opportunities to learn, with 93% of staff confirming their manager would generally support any request to undertake learning and development and triangulated with earlier findings from the management FGI’s, where 58% of staff believe that senior management do not cascade information adequately.
Commentary

There is a healthy exchange of knowledge and information within the directorate, though there is room for improvement at site level, where there is also a widely held belief that a lot of knowledge is held at management level. During the administrator interviews it was evident that knowledge they have developed is not being fully utilised or shared within the wider directorate and for OL to occur knowledge is shared through the collective where actors learn together (Senge, 2006) and if managed correctly can help introduce common thinking across the directorate (Handy, 1999).

The administrators advised the author on several matters in respect of KM and differing approaches at site level in the way KM systems are used, such as the E&F helpdesk, the national security system and document control. Evidence of good practice was uncovered at the administrator FGI’s and the organisation is not taking advantage of this knowledge. This finding supports Snell and Hong (2011) who challenge the Nonaka and Takeuchi (1995) SECI model and that the process of externalisation [of knowledge] is nothing more than a shared but tacit set of assumptions amongst employees (Snell and Hong, 2011).
The commitment of both administrators and managers could not be questioned; their passion for service delivery and level of job satisfaction was evident throughout every interview; however the organisations inability to reward this commitment proved to be a source of contention. Staff were able to identify other public sector organisations that do have recognition and reward schemes and felt that the organisation could do more to acknowledge this commitment.

Knowledge is not readily exchanged between directorates; working relationships are established throughout the organisation and knowledge appears to be shared on an as required basis. Most participants agreed the directorates don’t fully understand each other, demonstrating that more could be done in this area. Organisational structures that can share, absorb, assimilate and apply knowledge have an enormous impact on KM (Nguyen and Mohamed, 2011).

The bureaucratic nature of the organisation was cited as limiting factor in terms of how managers lead their teams and empower their staff. Within the directorate it is clear that managers are empowered to undertake their roles as leaders as much as possible, but there is a perception that overall, the organisation adopts a management style that could best be described as transactional; where leadership is more departmental, risk is constrained and fear of failure is high (Carnall, (a) 2007).

However, it is the characteristics of transformational leadership, not transactional, that are seen as key ingredients for the development of OL & KM (Birasnav et al., 2011; Atwood et al., 2010; Singh, 2008; Garcia-Morales et al., 2008; Crawford, 2005) and is critical to the success of OL and KM in geographically distributed teams (Argote et al., 2011) such as those found in the NHSBT.
4.5 Evaluation of the Conceptual Framework

The objective of the research was to establish whether the NHSBT operates as a unified learning organisation; sharing knowledge freely. The literature review identified the principals of OL, how it links with organisational context and the social forces that are requisite for OL to occur. The review also identified KM as another key enabler for organisational performance and the relationship between OL and KM was identified, built into CF and showing how it fed into the organisational context.

Further to this, it was argued that structure, culture and leadership and their appropriate characteristics were identified as requisite features which surround the process of OL and KM.

During the FGI’s and SSI’s participants unwittingly reinforced the generic concepts of OL, KM and the CF. However latter analysis of the interviews identified two additional themes.

The first centred on vision and direction from the senior leaders in the organisation and how their direction and influence impacted on OL and KM. The second observation was that ultimately it is the organisational context in which the organisation sits that determines its function and performance.

The original CF determined that structure culture and leadership surrounded the OL and KM process which in turn fed into the organisational context. As a result of the research the CF has been modified, demonstrating how the organisational context is a force surrounding not just structure, culture and leadership but also vision, all of which surrounds OL and KM which are inextricably linked as shown in Figure 5 below.
Chapter 5

Conclusions

5.1 Introduction

The conclusions presented here have been produced from the findings and analysis in chapter 4 and are presented in a descending order of importance.

5.2

The structure of the directorate does not necessarily prevent knowledge sharing or knowledge creation. The ability of local management to disseminate information in and around their teams evidently impedes this process. National and regional managers readily share knowledge with the site managers, but there is a clear distinction between the administrators on sites where managers undertake team briefings and openly engage with their staff and those who don’t.

5.3

The national structure brings together common practices, organisational consistency, improved departmental performance and a professional status in the organisation. However, the manager of E&F at site level is still very much influential over local operations and communications and [rightly] is very much focused on the blood centre they support. Though it is this very focus which prevents cross communication within the directorate; outside of the functional and monthly E&F meetings, there is very little interaction between the centres, best practices are not being shared and administration staff feel divorced from the wider directorate.
5.4
The administrators are at the ‘front end’ of delivering the E&F service. They are recognised as being an integral function to the day to day performance of the sites and are responsible for using the very systems that support these operations. Administrators are feeding back information to their line managers regarding these systems, but this information is not being shared with the wider directorate; site managers appear to be unaware or ambivalent to the importance of the feedback mechanism and its contribution to learning.

5.5
The administration teams have developed a high degree of knowledge and experience from which the directorate could learn, the lack of a platform, similar to that of the management functional groups means this knowledge is not being shared throughout the directorate. There is also a lack of resource within the directorate to release staff to participate in such activities and to function more as a national team.

5.6
The geographical structure of the organisation is clearly a limiting factor in relation to the E&F directorates’ ability to promote OL and KM. The national structure has set in place a number of key meetings where knowledge is readily transferred, but this occurs at functional and regional levels within the directorate and dilutes as it passes through the hierarchical and communication structure to local level.

5.7
The E&F functional groups are recognised within the management team as having an established reputation for creating new knowledge and improving ways of working. The principles of best practice are established within the groups remit, how this is translated at site level is questionable and relies on the ability of group members to
adequately disseminate the information back into the regions. It was also noted that communication regarding the roles of the groups is not effective amongst the wider elements of the directorate.

5.8
The multi-directorate structure of the organisation is a limiting factor in supporting OL and KM. New processes identified within the E&F directorate are subject to the approval of a number of external stakeholders, for example the introduction of new technology or systems is subject to the approval of other directorates and their own bureaucratic processes. Thus managers find themselves either waiting an inordinate amount of time just to seek approval to introduce a change process, or more often than not, tend not to bother in the first place.

5.9
The transactional approach of the very senior management team has an impact at all levels within the directorate, bureaucracy is commonplace and there is considerable focus on process policy and statutory regulation. Consequently, innovation is somewhat restricted to areas where managers feel they can influence, perpetuating the isolation of not only the centres, but also the directorate.

5.10
The stable environment, in which the organisation sits, means there is limited pressure on its senior leaders to drive change and innovation. As long as all the parts of the machine are working together; product is collected, processed and issued and key performance indicators are all green, then [very] senior management tend not to get involved in operations. Whilst this may not necessarily be a negative, this lack of involvement is stifling innovation within the organisation and inhibiting OL and KM.
5.11
The bureaucracy of the organisation is suffocating; to implement any new systems or working practices, results in protracted internal processes being activated and involves the engagement of several directorate stakeholders. A lack of senior interaction means leaders of the organisation are aware of the processes involved, but immune to the level of resource required and the frustration this causes at operational level. Without understanding this knowledge or experience, leaders are unable to help support or influence a change within the organisation that would help break down barriers and bureaucracy between the directorates and foster a culture towards OL.

5.12
Site managers hold senior roles within the directorate and have been empowered by the national structure to deliver services at a local level. It is evident they are also influenced by the culture of the sites they manage and their relationship with the management teams in which they function. As a result, what might be important to the national E&F structure may not be interpreted as important at site level and can cause conflicts of interest between the two competing structures.

5.13
There is a culture of knowledge and information sharing within the directorate, but due to the geographic distribution of the organisation, a lot of information is passed around electronically using a variety of systems, this in turn is creating an information overload and is not necessarily best practice in terms of KM.

5.14
There is a perception that a lot of communication is one-way from senior management down through the directorate structure. The evidence shows this is not necessarily the case; senior managers approach the day to day management of the organisation, rightly,
from a national perspective. The use of e-mail is a preferred mechanism for communication but its meaning gets lost in translation when it starts to permeate through the directorate. The importance of a national communication is not always readily visible at regional or local level and thus translates as one-way communication. The culture of not communicating back up the structure exacerbates this perspective.

5.15
The multi-directorate structure of the organisation clearly identifies functions within the organisation, sets in place a professional identity for core functions and has introduced consistency across the organisation. However the differing drivers of the directorates have created a silo mentality, coupled with the transactional leadership of the organisation, this does not give rise to collaboration and creates competing internal tensions.

5.16
Knowledge sharing between the directorates is undertaken on an ‘as required’ basis, and there is no platform within the organisation to readily share knowledge or best practices between them. Each directorate has a senior management team generally working in isolation of other management teams and adding to the local view, that nationally the directorates work in silos. This permeates through the wider organisation creating a lack of understanding between the directorates and limiting the ability of the organisation to learn cooperatively.

5.17
The reward and recognition scheme within the organisation offers no incentive to staff. The current recognition scheme is little more than a thank you on a piece of paper, is not tangible and subject to a monthly nomination process.
5.18
Overall the operational culture at site level is very positive. Managers and staff reported healthy relationships exist across the organisation; however their view of the national infrastructure was generally negative. There are a number of contributory factors to this view including:

- A risk averse leadership style
- Management by process and policy
- The lack of clear communication and direction from the national structure
- The lack of collaboration between national directorates
- Failure to embrace change

5.19 Areas for Further Research

The study of E&F within the organisation highlighted the difficulties the directorate experiences in terms of effective communication and feedback across a national infrastructure. E&F are not a unique structure and the study of communication should be opened out to other group service functions that are (a) geographically dispersed around the country, and (b) responsible for delivering a consistent national service at site level.

Although the study discussed learning and development of staff, it did not explore the mechanisms by which the formal process of development is undertaken and managed. It was evident during the study that the organisations internal learning and development department are attuned to the needs of the larger directorates. However, the niche needs of smaller directorates such as E&F are not necessarily understood or fully supported, the process by which learning and development is approved and the funding mechanism which is applied to all staff regardless of rank or salary was questioned on several occasions throughout the study and would benefit from further research.
National systems are in use within E&F; the organisation uses a plethora of information systems for national use, each of which has been introduced by different directorates to serve different purposes. A study of the use and effectiveness of these systems should be undertaken to identify any synergies or other systems that could be used to draw together this vast array of knowledge into a more consolidated operating infrastructure.
Chapter 6

Recommendations

6.1 Introduction

From the conclusions presented in chapter 5, the subsequent recommendations are presented here in a descending order of importance.

6.2
To keep staff informed, site managers must undertake regular team briefings which must not be focussed solely on local issues. Information from the functional group and regular monthly management team meetings must also be included, as well as other directorate wide information, for example, updates on ongoing E&F initiatives, salient points from routine contractor reports and from the regional E&F monthly report.

6.3
Site managers must improve communication between their centres and staff. Staff should be released to visit and interact with peer colleagues across the region to foster social relationships, share knowledge and best practice and feed that learning back across the directorate.

Regional managers should arrange workshop ‘open days’ for site administrators to meet as regional groups, allowing greater interaction to enhance the social processes [requisite for OL] and further improve directorate communication and knowledge sharing.

6.4
The findings of this research must be shared amongst the senior E&F management team. A consistent approach will be required across the country in terms of briefing site managers on the
importance of site feedback and how their role is pivotal in feeding information into the national structure, allowing senior managers the opportunity to help support and rectify issues which affect site operations.

A review of the national [knowledge] systems must be undertaken to identify and address inherent operating issues. Once this has been completed, standard operating practices will require updating and staff will need to be retrained accordingly. To ensure consistency, only a core group of selected staff will be used to roll out training within each of the three geographical regions.

6.5
The format of the functional management groups should be reviewed by the senior management team. Rather than continue with the current routine monthly meeting format and retaining their membership just to managers, the constitution of the group members should be reconsidered to introduce selected administrators as well as, or instead of, managers [or deputy managers]. Selected administrators can then be utilised to act as regional champions and be periodically released into the directorate to share the best practice and new knowledge that is generated from within the groups. Amending the frequency and format of the groups will lessen the effect on the lack of resources.

6.6
Senior managers must identify key issues that arise from regular meetings which they feel should be shared amongst the directorate. A common reporting format should also be adopted which can then feed in to a central point of contact for collection, collation and dissemination to the site managers for onward briefing.
6.7
The terms of reference for the functional groups should be reinforced by the regional managers, as should the authority of the functional group members tasked with implementing actions arising.

The constitution of the groups should be altered according to the prevailing subject matter, utilising the strengths, experience and motivation of appropriate staff from within the directorate.

The ‘chairs’ of the groups should prepare and complete presentations to the administrators at the regional workshops [as discussed in 6.3] outlining the purpose and importance of the group they chair and how it supports the directorate at local level.

6.8
A cross-directorate, multi-level working party should be set up within the organisation to identify procedural and process bottlenecks that limit the ability of the organisation to allow ideas and innovation to be tested. This group should comprise of representatives from E&F, I.T, Procurement, Quality Assurance and Finance.

6.9
There are over 8000 published policies and procedures within the organisation. A root and branch review should be carried out in order to understand why this is the case and to what degree are these processes relevant to the day to day functionality of the organisation and to challenge and remove them accordingly.

6.10
A review of the key performance indicators should be completed. This review should include the relevance of the current indicators with respect to operational performance, the amount of time and effort required to compile these monthly statistics, the number of differing [knowledge] systems which have to be accessed to compile
the data and the amount of input resource required that builds the data in the first instance.

The revised key performance indicators should accurately reflect the performance of the directorate and should be used actively and positively by senior leaders to not only understand, but also connect with operational issues at site level.

6.11
The senior leaders of the organisation need to understand the impact of how their isolation from site operations contributes to the negative view of the national structure and the ability of the organisation to foster a culture of OL and KM. A program of workshops should be implemented by the board of directors to get ‘back to the shop floor’ to understand how the hierarchy and bureaucracy affect the organisation's ability to innovate and then take appropriate action.

6.12
A series of ‘away days’ for the site managers should be commissioned by the E&F senior management team. These away days should comprise of an open forum where management can freely discuss operational issues which affect the performance of the directorate and seek to understand how the needs of local site management and operations can be balanced with the national infrastructure. The findings, outcomes and learning taken from the away days should then be used as an agreed foundation strategy for the future of the directorate.

6.13
The national helpdesk is a multi-functional, computer aided management system and currently uses less than 20% of its functionality. The directorate employs numerous knowledge systems to support day to day operations. These include, several internet operated systems, multiple and inconsistent use of ‘shared folders’ on the intranet and multiple use of ‘site folders’ on the intranet. The
helpdesk system is a highly flexible data management tool which could be used to consolidate a number of these other systems into a single knowledge repository and introduce a consistent approach to the management of E&F services. A consultant from the system provider should be commissioned to review how the system can be appropriately programmed to suit the E&F operation and to utilise fully, the systems capabilities.

6.14
Senior E&F managers should review the current methodology of communication within the directorate and consider the introduction of weekly or a two weekly telephone conference, where managers can phone in and current and upcoming matters can be discussed, reviewed and shared and also provides an opportunity to increase two-way communication at management level.

6.15
Senior directorate managers should attend other directorate management meetings on a regular basis. This will help directorates gain a better understanding of how each other work, the problems they face, share knowledge and experience and develop a common understanding across the organisation.

6.16
The organisation should consider a national ‘away day’ for its 440 senior managers. The purpose of the day would be to cross fertilise managers from the different directorates into working groups. These working groups should then be asked to discuss what issues affect them the most and to consider appropriate solutions. As the workshops progress, common issues should be identified across the directorates. These findings could then be used to feed into the future strategy of the organisation in terms of performance, culture, leadership, OL and KM
6.17
The organisation should review the reward and recognition scheme. The current process offers no incentives for staff, is not readily visible within the organisation and is subject to a monthly nomination process. Staff are not necessarily seeking monetary reward, but tangible recognition for efforts that have gone above and beyond the call of duty or have contributed to performance or service which has had a significant favourable impact or cost benefit to the organisation.

6.18
A review of how the directorates interface in the long term should be undertaken and included in the organisation’s strategic plan. Processes within the organisation are very much routinized, change is slow and there is a perception of a hierarchy of control and authority within the organisation and many rules are applied. If the organisation wishes to foster OL and KM then the board of directors must create an environment in which it is possible; where there is a willingness on the part of very senior managers to accept that learning must happen at all levels, to develop a culture of learning and demonstrate their commitment in the long term.

6.19
The following implementation plan [Table 15] outlines a proposal of actions, timescales, ownership and costs:
<table>
<thead>
<tr>
<th>Item</th>
<th>Action</th>
<th>Mobilisation Period</th>
<th>Completion</th>
<th>Ownership</th>
<th>Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>To keep staff informed, site managers must undertake regular team briefings which must not be focussed solely on local issues.</td>
<td>Immediate</td>
<td>Recurring</td>
<td>E&amp;F Managers</td>
<td>£Nil</td>
</tr>
<tr>
<td>2</td>
<td>Site managers must improve communication between their centres and staff.</td>
<td>Immediate</td>
<td>Recurring</td>
<td>E&amp;F Managers</td>
<td>£Negligible</td>
</tr>
<tr>
<td>3</td>
<td>Regional managers should arrange workshop ‘open days’ for site administrators to meet as regional groups</td>
<td>6 months</td>
<td>Bi-annual event</td>
<td>Regional E&amp;F Managers</td>
<td>£250 [expenses] per workshop</td>
</tr>
<tr>
<td>4</td>
<td>A review of the national [knowledge] systems must be undertaken to identify and address inherent operating issues. Once this has been completed, standard operating practices will require updating and staff will need to be retrained</td>
<td>3 months</td>
<td>Sep-13</td>
<td>Regional E&amp;F Managers</td>
<td>£2000 [expenses and travel]</td>
</tr>
<tr>
<td>5</td>
<td>The format of the functional management groups should be reviewed by the senior management team.</td>
<td>3 months</td>
<td>Sep-12</td>
<td>Regional E&amp;F Managers</td>
<td>£Nil</td>
</tr>
<tr>
<td>6</td>
<td>A common reporting format should be adopted and senior managers must identify key issues that arise from regular meetings which they feel should be shared amongst the directorate.</td>
<td>3 months</td>
<td>Sep-12</td>
<td>Regional E&amp;F Managers</td>
<td>£Nil</td>
</tr>
<tr>
<td>7</td>
<td>The ‘chairs’ of the groups should prepare and complete presentations to the administrators at the regional workshops</td>
<td>6 months</td>
<td>Dec-12</td>
<td>Regional E&amp;F Managers</td>
<td>Management Cost</td>
</tr>
<tr>
<td>8</td>
<td>A cross directorate, multi-level working party should be set up within the organisation to identify procedural and process bottlenecks</td>
<td>12 months</td>
<td>Mar-14</td>
<td>Chief Executive</td>
<td>Management Cost</td>
</tr>
<tr>
<td>9</td>
<td>A root and branch review should be carried out on the 8000 policies and procedures and their relevance or requirement should be challenged appropriately</td>
<td>18 months</td>
<td>Sep-14</td>
<td>Assistant Director of QA</td>
<td>Management Cost</td>
</tr>
</tbody>
</table>
### Table 21: Implementation Plan - Continued

<table>
<thead>
<tr>
<th>Item</th>
<th>Action</th>
<th>Mobilisation Period</th>
<th>Completion</th>
<th>Ownership</th>
<th>Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>A review of the key performance indicators should be completed</td>
<td>6 months</td>
<td>Dec-12</td>
<td>Director of Estates Logistics</td>
<td>Management Cost</td>
</tr>
<tr>
<td>11</td>
<td>A program of workshops should be implemented by the board of directors to get ‘back to the shop floor’</td>
<td>6 months</td>
<td>Dec-12</td>
<td>Chief Executive</td>
<td>Management Cost</td>
</tr>
<tr>
<td>12</td>
<td>A series of ‘away days’ for the site managers should be commissioned by the E&amp;F senior management team.</td>
<td>3 months</td>
<td>Mar-13</td>
<td>Head of Estates &amp; Facilities</td>
<td>£4000 [expenses and travel]</td>
</tr>
<tr>
<td>13</td>
<td>A consultant from the multi-functional computer aided helpdesk system provider should be commissioned to review how the system can be appropriately programmed to suit the E&amp;F operation and to utilise fully, the systems capabilities.</td>
<td>3 months</td>
<td>Dec-12</td>
<td>Head of Estates &amp; Facilities</td>
<td>£15000 [consultant costs]</td>
</tr>
<tr>
<td>14</td>
<td>Senior directorate managers should attend other directorate management meetings on a regular basis.</td>
<td>6 months</td>
<td>Recurring</td>
<td>Chief Executive</td>
<td>Management Cost</td>
</tr>
<tr>
<td>15</td>
<td>The organisation should consider a national ‘away day’ for its 440 senior managers. To be completed after going back to the shop floor.</td>
<td>12 months</td>
<td>Apr-13</td>
<td>Chief Executive</td>
<td>£100,000</td>
</tr>
<tr>
<td>16</td>
<td>The organisation should review the reward and recognition scheme.</td>
<td>3 months</td>
<td>Dec-12</td>
<td>Head of Pay and Awards</td>
<td>£Negligible</td>
</tr>
<tr>
<td>17</td>
<td>A review of how the directorates interface in the long term should be undertaken and included in the organisation's strategic plan.</td>
<td>12 months</td>
<td>Ongoing</td>
<td>Chief Executive</td>
<td>Management Cost</td>
</tr>
</tbody>
</table>
Appendices
Appendix 1: NHSBT Site Locations and Geographical Spread

Adapted from Tenos (2011)
Appendix 2: Estates and Facilities North

Regional Estates & Facilities Manager: North

PA to Regional Manager

Newcastle & Cumbria
Manchester & Lancaster
Liverpool & North Wales
Sheffield & South Yorks
Leeds & North Yorks
National Helpdesk

E&F Administration
E&F Hard Services
E&F Soft Services
E&F Deputy Managers
E&F Project Support
Outsourced Operations
Appendix 3: NHSBT Organogram

Adapted from NHSBT (2011)
Appendix 4: Self-Completion Questionnaire
To: Estates & Facilities Colleagues

MBA: Organisational Learning & Knowledge Management

Dear Colleagues,

You may be aware that for the last few years I have been studying part-time for my MBA. As I enter the final year of my study, I must undertake a research project to complete my dissertation.

The subject I have chosen is ‘organisational learning and knowledge management’ and how the structure, culture and leadership of the organisation impacts in these areas.

I have elected to undertake 3 methods of research, which includes self-completed questionnaires, group interviews and semi-structured interviews.

Questionnaires are being sent to all members of Estates and Facilities and it would be greatly appreciated if you could spare me the time to complete the attached questionnaire and return it to me either via email, scanned document or to the address below.

The questionnaire is completely anonymous and your returns will be made available only to me. Nobody will be able to identify any individual responses.

A swift response would be appreciated to allow me time to analyse the data and produce the findings.

Your contribution to this element of my research is of great importance as it will form the basis of the final stages of my dissertation.

Once I have completed my research, I will feedback to all of you, the outcomes and findings, so the greater the participation the more valid the data.

The questionnaire should take no more than 20 minutes to complete. Please read each question carefully and mark the answer that best fits your response by ‘clicking’ on the most appropriate response. Please try to answer all of the questions (and if you are completing a manual return and make a mistake please place a circle around your revised answer).

I look forward to your assistance and thank you very much in advance for your support.

If you have any questions or require any more information, please do not hesitate to contact me on 0771 144 7401 or 0161 423 4250 or via email.

Please be assured that any returned email responses will be treated with the same level of confidentiality as postal returns.

Andrew Montgomery

Regional Estates & Facilities Manager
Manchester Blood Centre
1. About You: How long have you worked at NHSBT?

<table>
<thead>
<tr>
<th>Option</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Less than 12 months</td>
<td></td>
</tr>
<tr>
<td>(b) More than 12 months, less than 5 years</td>
<td></td>
</tr>
<tr>
<td>(c) More than 5 years, less than 10 years</td>
<td></td>
</tr>
<tr>
<td>(d) More than 10 years</td>
<td></td>
</tr>
</tbody>
</table>

2. I am:

<table>
<thead>
<tr>
<th>Gender</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>(e) Male</td>
<td></td>
</tr>
<tr>
<td>(f) Female</td>
<td></td>
</tr>
</tbody>
</table>

3. I am based:

<table>
<thead>
<tr>
<th>Region</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>(g) In the South West region</td>
<td></td>
</tr>
<tr>
<td>(h) In the South East region</td>
<td></td>
</tr>
<tr>
<td>(i) In the Northern region</td>
<td></td>
</tr>
</tbody>
</table>

2. Other than formally accredited qualifications, during the last 12 months have you participated in any lessons or courses with the intention of improving your knowledge in the workplace?

<table>
<thead>
<tr>
<th>Option</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

3. Other than formally accredited qualifications, during the last 12 months have you participated in any workshops with the intention of improving your knowledge in the workplace?

<table>
<thead>
<tr>
<th>Option</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>
4. Other than formally accredited qualifications, during the last 12 months have you participated in any on-the-job training with the intention of improving your knowledge?

Yes [ ] No [ ]

5. Structure: To what extent do you agree with the following statements

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) The structure of the directorate limits knowledge creation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b) The structure of the directorate limits knowledge sharing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(c) The current hierarchy and structure of the directorate enables personal best practices to be readily shared between others</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(d) We work in isolation of other departments (silos) on site</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(e) We work as directorate silos</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(f) The NHSBT uses two-way communication on a regular basis</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(g) Communication is usually from Line Management down</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(h) The culture and hierarchy of the NHSBT enables communication that facilitates learning</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(i) Information is passed freely around the organisation without barriers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Structure (cont’d)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>-------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(j) As an organisation we regularly spend time reviewing lessons learned</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(k) Problems in the workplace are seen as an opportunity to learn.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(l) We can readily access and are encouraged to visit other departments to learn from each other</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(m) The NHSBT regularly shares lessons learned from incidents, events or experiences from other departments</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(n) As an organisation we are encouraged to actively share our knowledge</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Continue to section 6*
### Culture: To what extent do you agree with the following statements

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Blood centres do not communicate with each other</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b) In the NHSBT we focus on departmental tasks and on how well the department is working</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(c) The sharing of knowledge is left only for senior managers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(d) Colleagues openly discuss mistakes in order to learn from them.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(e) People are not willing to share their knowledge</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(f) In the NHSBT, colleagues will often listen to others views before speaking.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(g) In my department, whenever people state their view, they also ask what others think.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(h) In the NHSBT, people treat each other with respect.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(i) I am encouraged to interact with other colleagues to get answers from across the organisation when solving problems</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(j) The NHSBT promotes learning from experiences</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(k) The directorate promotes learning from experiences</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(l) The NHSBT does not encourage employees to take calculated risks</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Culture (cont’d)</td>
<td>Strongly Agree</td>
<td>Agree</td>
<td>Disagree</td>
</tr>
<tr>
<td>---</td>
<td>--------------------------------------------------------------------------------</td>
<td>----------------</td>
<td>-------</td>
<td>----------</td>
</tr>
<tr>
<td>(m)</td>
<td>In the NHSBT, Managers ensure that the organisations actions are consistent with its values</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>(n)</td>
<td>The leadership of the NHSBT recognises the importance of knowledge management and its contribution to learning.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

*Continue to section 7*
**Leadership: To what extent do you agree with the following statements**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) The NHSBT ensures people are given time to support their learning objectives.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>(b) The speed of knowledge exchange is good within the department locally</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>(c) The speed of knowledge exchange is good within the E&amp;L Directorate</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>(d) There is no reward/recognition for knowledge sharing</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>(e) As a directorate we actively share our knowledge</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>(f) As an organisation we are encouraged to openly share knowledge with other directorates</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>(g) In the NHSBT, Managers empower others to help carry out the organisations vision</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>(h) In the NHSBT, there is a culture where Managers mentor and coach those they lead</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>7 Leadership (cont’d)</td>
<td>Strongly Agree</td>
<td>Agree</td>
<td>Disagree</td>
</tr>
<tr>
<td>---</td>
<td>------------------------------------------------------------------------------------</td>
<td>----------------</td>
<td>-------</td>
<td>----------</td>
</tr>
<tr>
<td>(i)</td>
<td>In the NHSBT, colleagues are rewarded for their achievements as a department</td>
<td>□</td>
<td></td>
<td>□</td>
</tr>
<tr>
<td>(j)</td>
<td>In the NHSBT, leaders continually look for opportunities to learn.</td>
<td>□</td>
<td></td>
<td>□</td>
</tr>
<tr>
<td>(k)</td>
<td>In the NHSBT my Line Manager will generally support requests for learning</td>
<td>□</td>
<td></td>
<td>□</td>
</tr>
<tr>
<td></td>
<td>opportunities and training</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(l)</td>
<td>Senior management do not cascade information adequately</td>
<td>□</td>
<td></td>
<td>□</td>
</tr>
</tbody>
</table>

Comments: Please add any comments you feel may be appropriate to any of your responses given in this questionnaire;
Appendix 5: Demographic Profiles

All E&F: I am;
- Male: 46%
- Female: 54%

LSE: I am;
- Male: 38%
- Female: 62%

MSW: I am;
- Male: 47%
- Female: 53%

North: I am;
- Male: (e) 52%
- Female: (f) 48%
Appendix 5: Continued

**All E&F: How long have you worked at NHSBT?**

- (a) < 12 months: 3%
- (b) > 12 months, < 5 years: 29%
- (c) > 5 years, < 10 years: 32%
- (d) > 10 years: 36%

**LSE: How long have you worked at NHSBT?**

- (a) < 12 months: 31%
- (b) > 12 months, < 5 years: 31%
- (c) > 5 years, < 10 years: 38%
- (d) > 10 years: 3%

**MSW: How long have you worked at NHSBT?**

- (a) < 12 months: 5%
- (b) > 12 months, < 5 years: 16%
- (c) > 5 years, < 10 years: 37%
- (d) > 10 years: 42%

**North: How long have you worked at NHSBT?**

- (a) < 12 months: 4%
- (b) > 12 months, < 5 years: 33%
- (c) > 5 years, < 10 years: 30%
- (d) > 10 years: 33%
Appendix 6: SCQ Regional Breakdown
Appendix 6a: Structure - Objective 1

5a. The structure of the directorate limits knowledge creation.
5b. The structure of the directorate limits knowledge sharing.
5c. The current hierarchy and structure of the directorate enables personal best practices to be readily shared between others.
5d. We work in isolation of other departments (silos) on site.
5e. We work as directorate silos.
## Appendix 6b: Culture - Objective 1

<table>
<thead>
<tr>
<th></th>
<th>South East</th>
<th>South West</th>
<th>North</th>
</tr>
</thead>
<tbody>
<tr>
<td>6a.</td>
<td>Blood Centres do not communicate with each other.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6b.</td>
<td>In the NHSBT we focus on departmental tasks and on how well the department is working.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6c.</td>
<td>The sharing of knowledge is left only for the senior managers.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6d.</td>
<td>Colleagues openly discuss mistakes in order to learn from them.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Appendix 6c: Leadership - Objective 1

<table>
<thead>
<tr>
<th></th>
<th>South East</th>
<th>South West</th>
<th>North</th>
</tr>
</thead>
<tbody>
<tr>
<td>7a</td>
<td><img src="image" alt="Graph" /></td>
<td><img src="image" alt="Graph" /></td>
<td><img src="image" alt="Graph" /></td>
</tr>
<tr>
<td>7b</td>
<td><img src="image" alt="Graph" /></td>
<td><img src="image" alt="Graph" /></td>
<td><img src="image" alt="Graph" /></td>
</tr>
<tr>
<td>7c</td>
<td><img src="image" alt="Graph" /></td>
<td><img src="image" alt="Graph" /></td>
<td><img src="image" alt="Graph" /></td>
</tr>
<tr>
<td>7d</td>
<td><img src="image" alt="Graph" /></td>
<td><img src="image" alt="Graph" /></td>
<td><img src="image" alt="Graph" /></td>
</tr>
</tbody>
</table>

7a. The NHSBT ensures people are given time to support their learning objectives.
7b. The speed of knowledge exchange is good within the department locally.
7c. The speed of knowledge exchange is good within the E&L Directorate.
7d. There is no reward/recognition for knowledge sharing.
Appendix 6d: Structure - Objective 2

<table>
<thead>
<tr>
<th>Objective</th>
<th>South East</th>
<th>South West</th>
<th>North</th>
</tr>
</thead>
<tbody>
<tr>
<td>5f.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5g.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5h.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5i.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5j.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5f. The NHSBT uses two-way communication on a regular basis.
5g. Communication is usually from Line Management down.
5h. The culture and hierarchy of the NHSBT enables communication that facilitates learning.
5i. Information is passed freely around the organisation without barriers.
5j. As an organisation we regularly spend time reviewing lessons learned.
Appendix 6e: Culture - Objective 2

6e. People are not willing to share their knowledge.
6f. In the NHSBT, colleagues will often listen to others views before speaking.
6g. In my department, whenever people state their view, they also ask what others think.
6h. In the NHSBT, people treat each other with respect.
6i. I am encouraged to interact with other colleagues to get answers from across the organisation when solving problems.
### Appendix 6f: Leadership - Objective 2

<table>
<thead>
<tr>
<th></th>
<th>South East</th>
<th>South West</th>
<th>North</th>
</tr>
</thead>
<tbody>
<tr>
<td>7e.</td>
<td>As a directorate we actively share our knowledge.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7f.</td>
<td>As an organisation we are encouraged to openly share knowledge with other directorates.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7g.</td>
<td>In the NHSBT, Managers empower others to help carry out the organisation’s vision.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7h.</td>
<td>In the NHSBT, there is a culture where Managers mentor and coach those they lead.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

![Graphs showing data for South East, South West, and North]
### Appendix 6g: Structure - Objective 3

<table>
<thead>
<tr>
<th>5n.</th>
<th>5m.</th>
<th>5l.</th>
<th>5k.</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Bar Chart" /></td>
<td><img src="image" alt="Bar Chart" /></td>
<td><img src="image" alt="Bar Chart" /></td>
<td><img src="image" alt="Bar Chart" /></td>
</tr>
</tbody>
</table>

- **South East**
- **South West**
- **North**

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>5k.</td>
<td>Problems in the workplace are seen as an opportunity to learn.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5l.</td>
<td>We can readily access and are encouraged to visit other departments to learn from each other.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5m.</td>
<td>The NHSBT regularly shares lessons learned from incidents, events or experiences from other departments.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5n.</td>
<td>As an organisation we are encouraged to actively share our knowledge.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Appendix 6h: Culture - Objective 3

<table>
<thead>
<tr>
<th></th>
<th>South East</th>
<th>South West</th>
<th>North</th>
</tr>
</thead>
<tbody>
<tr>
<td>6j</td>
<td>The NHSBT promotes learning from experiences.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6k</td>
<td>The directorate promotes learning from experiences.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6l</td>
<td>The NHSBT does not encourage employees to take calculated risks.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6m</td>
<td>In the NHSBT, Managers ensure that the organisations actions are consistent with its values.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6n</td>
<td>The Leadership of the NHSBT recognises the importance of knowledge management and its contribution to learning.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Appendix 6i: Leadership - Objective 3

<table>
<thead>
<tr>
<th>South East</th>
<th>South West</th>
<th>North</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Graph" /></td>
<td><img src="image2.png" alt="Graph" /></td>
<td><img src="image3.png" alt="Graph" /></td>
</tr>
</tbody>
</table>

- **7i.** In the NHSBT, colleagues are rewarded for their achievements as a department.
- **7j.** In the NHSBT, leaders continually look for opportunities to learn.
- **7k.** In the NHSBT my Line Manager will generally support requests for learning opportunities and training.
- **7l.** Senior management do not cascade information adequately.
Appendix 7: Focus Group Interviews

<table>
<thead>
<tr>
<th>Focus Group Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective 1 - Structure</strong></td>
</tr>
<tr>
<td><strong>Organisational Structure</strong></td>
</tr>
<tr>
<td>FG1 Do directorates work in silos?</td>
</tr>
<tr>
<td>FG2 Does the structure of the organisation/department allow us to share best practice and knowledge?</td>
</tr>
<tr>
<td>FG3 Does the structure of the organisation readily allow us to review lessons learned?</td>
</tr>
<tr>
<td><strong>Organisational Culture</strong></td>
</tr>
<tr>
<td>FG4 Do blood centres readily communicate with each other?</td>
</tr>
<tr>
<td>FG5 Is knowledge passed readily around the organisation?</td>
</tr>
<tr>
<td>FG6 Why do we focus heavily on departmental performance?</td>
</tr>
<tr>
<td><strong>Organisational Leadership</strong></td>
</tr>
<tr>
<td>FG7 Are we recognised within the organisation?</td>
</tr>
<tr>
<td>FG8 Does the organisation readily support learning and development?</td>
</tr>
<tr>
<td>FG9 Are we given time to support learning and development?</td>
</tr>
<tr>
<td>FG10 Can we readily share our knowledge?</td>
</tr>
<tr>
<td><strong>Objective 2 - Culture</strong></td>
</tr>
<tr>
<td><strong>Organisational Structure</strong></td>
</tr>
<tr>
<td>FG11 Is two-way communication good within the organisation?</td>
</tr>
<tr>
<td>FG12 Is there any one-way communication?</td>
</tr>
<tr>
<td>FG13 Do we readily share best practice/information?</td>
</tr>
<tr>
<td>FG14 How do we review lessons learned?</td>
</tr>
<tr>
<td><strong>Organisational Culture</strong></td>
</tr>
<tr>
<td>FG15 How would you describe the culture of the NHSBT</td>
</tr>
<tr>
<td>FG16 Do directorates/departments readily interact with each other?</td>
</tr>
<tr>
<td>FG17 Do we readily share our knowledge and experience?</td>
</tr>
<tr>
<td><strong>Organisational Leadership</strong></td>
</tr>
<tr>
<td>FG18 Are we encouraged to share our knowledge?</td>
</tr>
<tr>
<td>FG19 Do you feel empowered when undertaking your role?</td>
</tr>
<tr>
<td>FG20 Do we actively undertake mentoring and development?</td>
</tr>
<tr>
<td>FG21 Do you feel informed in respect of organisational development and progress?</td>
</tr>
<tr>
<td>Focus Group Questions - Continued</td>
</tr>
<tr>
<td>-----------------------------------</td>
</tr>
<tr>
<td><strong>Objective 3 - Leadership</strong></td>
</tr>
<tr>
<td><strong>Organisational Structure</strong></td>
</tr>
<tr>
<td>FG22  Do we readily share problems and solutions?</td>
</tr>
<tr>
<td>FG23  Do we genuinely review and share lessons learned?</td>
</tr>
<tr>
<td>FG24  Do we readily interact with other departments/directorates?</td>
</tr>
<tr>
<td><strong>Organisational Culture</strong></td>
</tr>
<tr>
<td>FG25  Do we readily share our knowledge?</td>
</tr>
<tr>
<td>FG26  Are we encouraged to spend time with other departments/directorates?</td>
</tr>
<tr>
<td>FG27  Do we actively promote learning and learning from experience?</td>
</tr>
<tr>
<td>FG28  Do we readily explore new challenges or opportunities?</td>
</tr>
<tr>
<td><strong>Organisational Leadership</strong></td>
</tr>
<tr>
<td>FG29  Do we readily support learning and development?</td>
</tr>
<tr>
<td>FG30  Are we rewarded for our achievements?</td>
</tr>
<tr>
<td>FG31  Are we encouraged to explore new challenges?</td>
</tr>
<tr>
<td>FG32  Is too much information cascaded through the organisation?</td>
</tr>
</tbody>
</table>
## Appendix 8: Semi-Structured Interviews

<table>
<thead>
<tr>
<th>Semi-Structured Interview Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective 1 - Structure</strong></td>
</tr>
<tr>
<td><strong>Organisational Structure</strong></td>
</tr>
<tr>
<td>S1 How often do you communicate with other directorates?</td>
</tr>
<tr>
<td>S2 How often do you communicate with other E&amp;F colleagues at other sites?</td>
</tr>
<tr>
<td>S3 Do you regularly share lessons learned with department colleagues?</td>
</tr>
<tr>
<td>S4 Do you regularly share lessons learned with other NHSBT colleagues?</td>
</tr>
<tr>
<td><strong>Organisational Culture</strong></td>
</tr>
<tr>
<td>S5 Do you think the blood centres work in isolation of each other and why?</td>
</tr>
<tr>
<td>S6 Do we readily share our knowledge around the organisation?</td>
</tr>
<tr>
<td>S7 Do we readily support other colleagues across the department?</td>
</tr>
<tr>
<td>S8 Does the hierarchy of the department/organisation permit cross directorate working?</td>
</tr>
<tr>
<td><strong>Organisational Leadership</strong></td>
</tr>
<tr>
<td>S9 Does the organisation support your learning and development?</td>
</tr>
<tr>
<td>S10 Is your learning and development adequate for your professional needs?</td>
</tr>
<tr>
<td>S11 Do we actively promote knowledge management and learning?</td>
</tr>
<tr>
<td><strong>Objective 2 - Culture</strong></td>
</tr>
<tr>
<td>S12 <strong>Organisational Structure</strong></td>
</tr>
<tr>
<td>S13 What is your definition of two-way communication?</td>
</tr>
<tr>
<td>S14 Do you believe communication from senior managers is one-way?</td>
</tr>
<tr>
<td>S15 Do you actively share best practice/information amongst colleagues?</td>
</tr>
<tr>
<td><strong>Organisational Culture</strong></td>
</tr>
<tr>
<td>S16 How would you describe the culture of the NHSBT?</td>
</tr>
<tr>
<td>S17 How would you describe the culture of the department?</td>
</tr>
<tr>
<td>S18 Do directorates/departments readily interact with each other?</td>
</tr>
<tr>
<td><strong>Organisational Leadership</strong></td>
</tr>
<tr>
<td>S19 Are we encouraged to work with other colleagues/departments?</td>
</tr>
<tr>
<td>S20 Do we empower our staff and encourage them to try new things?</td>
</tr>
<tr>
<td>S21 Does the organisation promote the mentoring of staff?</td>
</tr>
<tr>
<td>Semi-Structured Interview Questions - Continued</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td><strong>Objective 3 - Leadership</strong></td>
</tr>
<tr>
<td><strong>Organisational Structure</strong></td>
</tr>
<tr>
<td>S22   Are problems readily shared or discussed amongst the department?</td>
</tr>
<tr>
<td>S23   Are we encouraged to share lessons learned with other E&amp;F colleagues?</td>
</tr>
<tr>
<td>S24   Are we encouraged to share lessons learned with other departments?</td>
</tr>
<tr>
<td>S25   Do you have a good understanding of how other departments work?</td>
</tr>
<tr>
<td><strong>Organisational Culture</strong></td>
</tr>
<tr>
<td>S26   Are we good at sharing our knowledge?</td>
</tr>
<tr>
<td>S27   Are we risk averse?</td>
</tr>
<tr>
<td>S28   Do you regularly network with other departments?</td>
</tr>
<tr>
<td>S29   Do we promote learning and development adequately?</td>
</tr>
<tr>
<td>S30   Are we encouraged to be innovative?</td>
</tr>
<tr>
<td><strong>Organisational Leadership</strong></td>
</tr>
<tr>
<td>S31   Does our leadership actively promote learning?</td>
</tr>
<tr>
<td>S32   Do our leaders understand the operational challenges at site level?</td>
</tr>
<tr>
<td>S33   Do we see enough of our senior leaders?</td>
</tr>
<tr>
<td>S34   Do we cascade information adequately?</td>
</tr>
</tbody>
</table>
Bibliography


Liebowitz, J. (b) (2006). From Individual Transformation to Organizational Intelligence. Strategic Intelligence: Business Intelligence, Competitive Intelligence, and Knowledge Management. Ch1, pp8-11. Auerbach Publications.


