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**The Impact of Organisational Aesthetics
upon Innovation in the Public Sector: an
exploration of employee perceptions of
changes to workplace design**

GUY MATTHEW BROWN

Professional Doctorate

July 2010

**The Impact of Organisational Aesthetics
upon Innovation in the Public Sector: an
exploration of employee perceptions of
changes to workplace design**

By

GUY MATTHEW BROWN

A thesis submitted in partial fulfillment
of the requirements of the
University of Northumbria at Newcastle
for the degree of
Professional Doctorate

Research Undertaken in Newcastle
Business School, Northumbria University

July 2010

ABSTRACT

The Impact of Organisational Aesthetics upon Innovation in the Public Sector: an exploration of employee perceptions of changes to workplace design

This study considers the impact of two examples of the Working without Walls (WwW) design initiative in the public sector.

The Working without Walls (WwW) (2003) and updated Working beyond Walls (WbW) (2008) papers describe the government's initiatives in workspace redesign. These aim to encourage employee participation, relationship enhancement and improve communication, as well as to reflect organisational strategy and build team identities. These aims resonate with the public sector modernisation reforms aimed to create effective, responsive and accountable services.

At the same time an increasingly common approach across sectors has been the adoption of learning organisation principles as a method of creating a culture of interactive behaviour, innovation and knowledge creation.

Many public sector agencies are developing strategies to empower employees and create a culture of shared learning and decision making, moving away from the traditional functional and bureaucratic management styles.

Within this emergent policy context, this thesis investigates the extent to which the WwW model has facilitated learning through workplace redesign. The study investigates literature from public sector management, organisation theory, learning organisation and workplace design disciplines in order to guide the investigation.

Two case studies of organisations who piloted the WwW approach were investigated. The case studies highlight individuals' experience of working in these new working environments, whilst also reflecting the enablers and barriers that research participants have faced.

Analysis demonstrates that the critical success factors for facilitating learning through workplace redesign include the removal of many features of bureaucratic organisation and implementation of detailed cultural change programmes.

The study has enabled the development of a change strategy which is designed to guide other public sector organisations implementing workplace redesign initiatives as a facilitator of innovation.

Key Words: Learning Organisation, Aesthetics, Public Sector, Working without Walls

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Whilst the cover page of this thesis bears my name, the submission has been achieved as a result of the unstinting support from numerous individuals.

To begin perpetual gratitude is afforded to my supervisory team, Dr Ron Beadle, Peter Fisher and Phillip Shrives, who over the past two and a half years have provided both academic stimulation and continual words of encouragement.

However, it is to those individuals who first ignited my interest in this subject area who should also gain due acknowledgement. Professor John Fenwick, John Holmes and Graham Capper provided the initial enthusiasm for this study and have continued to encourage me to engage in the continued advancement of the subject discipline.

The senior management team, colleagues and research community at Newcastle Business School have additionally provided encouragement and a supportive environment in which you are given confidence to achieve your goals. This is particularly important as a part time learner juggling many other commitments.

Two organisational studies provided the backbone to the research and due to the sensitivity of information found in each cannot be named. However, thanks are extended to the staff and management of both organisations and particularly the WwW project teams who facilitated my data collection process and ensured any barriers were overcome.

To the WwW Project Team within the Office of Government Commerce and Treasury, I also extend my thanks for your encouragement and continued interest in my studies.

Finally, it is those family and friends who have shaped me, provided me with the determination to always do my best and often shown interest in subjects which have no relevance to them, I offer my ultimate gratitude. Thank you to you all.

DECLARATION

Statement 1

This work has not previously been accepted in substance for any degree and is not being currently submitted in candidature for any degree.

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This thesis is the result of my own investigations in relation to the theory (employee commitment) in study, except where otherwise stated and acknowledged within this thesis and its bibliography appended.

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Signed:.....(*candidate*)

Date:

Dr Ron Beadle, Mr Peter Fisher and Mr Philip Shives
(Supervisors)

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1.0 INTRODUCTION TO STUDY

Within the past two decades a series of modernization initiatives have changed the way in which the public sector is managed. This has led to a change in the culture of public sector organisations, often with an emphasis upon installing the practice and behaviours of the private sector, including market driven goals, efficiency, value for money and improved effectiveness and accountability. (Smith and Taylor, 2000; Borraz and John, 2004; Leach and Wilson, 2004).

When interpreting the various modernization demands for effective, responsive and accountable public services, an increasingly common approach has been the adoption of postmodern approaches to management as a means of creating cultures of interactive behavior, innovation and knowledge creation. This has been most notably interpreted in the public sector as the creation of learning organisations.

This approach was reinforced at the launch of the 1999 Report 'Modernising Government', in which the then Prime Minister Tony Blair explained "The public service must become a learning organisation, it needs to learn from its past successes and failures. It needs to consistently benchmark itself against the best, wherever that is found. Staff must be helped to learn new skills throughout their careers. Through bureaucracy and an attachment to existing practices for their own sake, we have too often stifled initiative and have discouraged staff from putting ideas forward." *Modernising Government* (Cabinet Office, 1999, p56). The clear intention of ministers was to signal that the learning organisation would play an important part in a 'continued drive for responsive, high-quality public services' (Auluck, 2002, p. 109).

In order to facilitate such principles, the government embarked on a process of workspace redesign to encourage employee participation, relationship enhancement and improved communication (Becker, 2004), as well as to involve all in organisational strategy (Commission for Architecture and the Built Environment & British Council for Offices, 2005) and building team identities (Becker and Steele, 1995).

The Working without Walls (WwW) – An insight into the transforming government workplace (2003) paper, suggests a key driver of an empowering workplace is the adoption of what Duffy (1997) termed 'Den and Club' Style buildings or Myerson and Ross (2003) called 'Narrative, Nodal, Neighbourly or Nomadic'.

Such models have been led by key government departments including the Ministry of Defence, Scottish Enterprise and the Treasury.

'More than seven miles of internal walls were removed as part of the Treasury redevelopment project. This physical change was symbolic of much deeper cultural, business and technology transformation within the Treasury, where numerous time-bound organisational barriers were removed to support the more agile and dynamic organisation that is evolving today.' Paul Pegler, Her Majesty's Treasury, Working without Walls (2005)

Within this emergent policy context, the author aims to investigate the extent to which the WwW model has facilitated achievement of the learning organisation and wider cultural change, with an aim to identify models of best practice and barriers as perceived by building users. It is envisaged this will inform future application of the WwW model which is scheduled for widespread implementation in coming years.

Whilst the literature relating to the learning organisation has grown exponentially since the 1990s, relatively little attention has been given to public service organisations (Bapuji and Crossan, 2004; Kelman, 2005).

Furthermore, few empirical studies have considered learning within nonprofit sectors (Shipton, 2006; Rashman et al, 2009). Following a review of learning literature, Rashman et al (2009) note a number of reasons why such lack of empirical study should be addressed.

Firstly, the scale of public sector organisations is of sufficient significance to warrant attention from organisational and management researchers (Ferlie et al, 2003); secondly in recent decades public organisations have undergone substantial reform, driving the need to create and share organisational knowledge, but they remain under-represented in literature, and thirdly, attention to specific features that influence learning and knowledge in public organisations may help to expand knowledge about the field across all types of organisation.

Combined with the introduction of WwW as an influencer of learning, it is this final reason which drives this study.

1.1 Personal Motivations

The author first became involved with the WwW methodology in spring 2007 when he was approached by a regional government agency to undertake a post-occupancy study of their new office environment. This was aligned to the WwW principles. Full access was granted to the organisation and, following a standard post occupancy survey approach, a quantitative analysis of employee workplace perceptions was undertaken. A conference paper followed this study (Health and Wellbeing in a Deep Plan Air-Conditioned Commercial Property, CLIMA Conference, Helsinki, June 2007).

Whilst this study provided findings to suggest some employees were generally satisfied with their new surroundings, whilst others had issues, the research provided significant frustrations.

Most notably the post occupancy survey provided no opportunity to investigate the reasons for employee satisfaction or dissatisfaction. Furthermore, there was no reflection upon the impact the new surroundings was having based upon the original objectives of the workplace redesign programme.

To address such frustrations, the author was invited to undertake a further qualitative study in December 2007. This subsequent study provided an opportunity to carry out a more focused literature search in response to the organizations workplace redesign objectives, and devise a primary research approach in order to gain employee insights as to their perceptions of the redesign. The objectives placed significant emphasis upon creating an environment which facilitated the creation of a learning organisation, in response to the governments Modernising Government (1999) white paper. Furthermore, the objectives highlighted a need to remove 'unnecessary bureaucracies' and 'empower the front line'.

A mixture of workplace observation and semi structured interviews identified a number of barriers, namely a lack of understanding of the purpose of workplace redesign, resistance from managers, and an inadequate cultural change process. Findings of this study were presented at the Royal Institution of Chartered Surveyors, COBRA research conference, Dublin, 2008 (Health and Wellbeing in an office environment, COBRA Conference, Dublin, 4-5 September 2008).

Throughout this second study, literature searches demonstrated a clear knowledge gap in relation to learning organisation and workplace design.

This was reinforced in research undertaken by Design Consultants DEGW, CBPB, and Arup, for the Commission of Architecture and the Built Environment, 'Office Design and its Impact upon Business Performance' (2005), which highlighted a need for a framework, or series of frameworks, within which the connections between business strategy, office design and innovation could be examined.

Specifically, they highlight the need for applied research that could provide recommendations for individual organisations wishing to adopt new approaches to workplace design, and a need for a more settled language to avoid misinterpretation and confusion.

This research further suggests such a framework should provide organisations with an explanation of the role workplace design can play in achieving organisational goals and how to achieve the intended strategy. Case studies based on best practice are identified as a most appropriate research methodology.

This was further emphasized in summer 2007 during an informal round table discussion with Professor Virginia Gibson, University of Reading, and representatives from the Office of Government Commerce at the dissemination of a National Audit Commission report in relation to getting the best from public sector office accommodation. Whilst this report reflected briefly upon the use of break-out areas to encourage interaction and communication, no consideration was made in relation to subsequent learning or the extent such space contributed to wider goals of desired cultural change.

Findings from the authors first and second studies were presented to the Project Directors at the Office of Government Commerce who were responsible for workplace redesign initiatives in the UK public sector, and the WwW pilot. At this point, the Project Directors suggested the author undertook quantitative post occupancy surveys in each of the WwW pilot organizations in order to measure employee satisfaction. However, given the significant emphasis of building learning organizations as a result of WwW, it was agreed, based on the author's previous experience, that a post occupancy survey would not generate the rich data essential to inform future practice. Indeed, the author considered it essential to provide opportunity for employees to share their experiences in order to shape future WwW strategy. It was further considered that such an approach may further embed the principles of the learning organisation philosophy.

In response, the author was given significant encouragement to pursue this research interest as a doctoral study.

Such support has included unrestricted access to desk research and preliminary studies outlining the WwW methodology, invitation to view Working without Walls pilot projects across the UK and written support to pilot organisations encouraging support of this doctoral study by means of access for data collection.

This support has enabled access to two research organisations and access to a further five should problems occur. The Office of Government Commerce contributed to the design of research question and subsequent objectives in order to ensure relevance to public sector practice.

As a result, this is the first qualitative study in relation to the extent to which the effects of WwW acts as a facilitator of learning organisation in the public sector and has generated considerable interest from a range of public sector organisations about to embark on a workplace redesign journey.

This study provides a practical contribution to an under-researched area of management. As an example, Duffy (1998) and Grimshaw and Cairns (2000) note limited evidence-based research relating to the relationship between individuals and their physical environment, whilst Hartley and Alison (2002) note relatively little empirical research examining the processes of learning as a result of inter-organisational networks specific to the public sector.

1.2 Research Question and Objectives

The purpose of this study is to understand the impact upon organisational aesthetics and innovation in the public sector. Therefore the research will consider:

The Impact of Organisational Aesthetics upon Innovation in the Public Sector: an exploration of employee perceptions of changes to workplace design

The following objectives have been identified:

1. To critically review existing literature in public sector management design, learning organisation and workplace design.
2. To identify and critique theoretical resources that suggest a positive relationship between particular types of workplace design and outcomes that generate learning.
3. To develop appropriate methodology and methods to explore the impact of workplace design in two public sector organisations.
4. To analyse employees' perception of the effects of WwW as a facilitator of learning in their workplace.
5. To identify factors that assists and detracts from the development of learning in these contexts.
6. To draw conclusions from this study to assist workplace design strategies within the public sector.

2.0 CONTEXT

2.1 The Public Sector Workplace and Working without Walls

The UK public sector workplace as we know it today has been in existence for over 200 years, housing the administrative functions of government. Whether civil service, local authority, NHS, uniformed services, or other agencies, they provide the base from which policies are formed and programmes delivered. Throughout this period the portfolio of public sector real estate in the UK has evolved.

Traditionally, the public sector workplace was characterized by imperial structures, featuring classic exteriors and elaborate facades, projecting an impression of power, status and hierarchy. Buildings housed palatial management suites, with high ceilings, and long, wide, corridors, leading to a myriad of individual offices, designed to support highly status driven, top down, organisational structures.

The expansion of the state from the 1940's further led to the growth of public sector building stock. Whilst following similar design features, these new buildings were more functional in nature, reflecting the values of functional specialism.

During the period 1979-1990, under the Thatcher administration, a rationalization of public services commenced. Based on the concept of efficiency and neo-liberalism, many government functions were outsourced. Adopting many workplace design principles more associated with the private sector, these organisations often embraced the idea that the physical office environment has a significant impact on the output and efficiency of the organisation. This led to a drive towards new forms of workplace design.

New, more economical models of workplace design emerged, such as non-territorial working (NTW), or hotelling. Such workplace designs omit exclusive work stations for employees, allow for less physical space and encourage greater social interaction within the organisation.

Outsourced organisations also recognised that staff do not spend all their time at their desk and often require other types of environments to work in. Meeting rooms, breakout areas, and touchdown space was incorporated into many of the new organisations.

Functions retained in public sector control remained embedded in traditional working practices and environments. However, the modernization initiatives of New Labour from 1997 challenged such hierarchical organisational structures and approaches. As a result the public sector initiated a review of how it should conduct its business.

In summary, research undertaken by the University of Reading (2004), suggested the evolution of public sector workplace models could be conceptualized as follows:

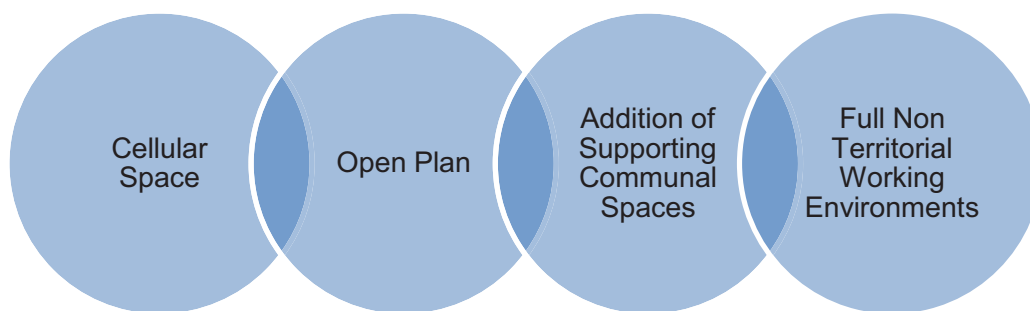


Figure 1 The evolution of office space in departments and agencies. University of Reading (2004)

This research identified distinct cultural differences between traditional government agencies and those which adopted new forms of working. Workplace design was noted as a key contributor of such cultural change. In response, and as part of their drive to create organisations in which innovation, creativity, employee participation, and improved communication was at the heart, a project to transform the government workplace was born.

2.2 A Driver of Workplace Redesign - Working without Walls

The Working without Walls (WwW) initiative was launched in 2004 by the Office of Government Commerce with the aim of using public sector real estate as a driver of such transformation.

The WwW approach builds upon the US Government Integrated Workspace model developed in 1998 by the US General Services Administration. This model, disseminated to all public service organisations across the United States, provided a range of practical suggestions designed to encourage greater achievement of strategic business goals through the development of new forms of physical space. The model particularly emphasized the need for flexible, efficient office environments designed to enhance productivity and assist in attracting and retaining a quality workforce (The Integrated Workspace, 1998, p4).

Formed from the earlier work of Cornell University professors Franklin Becker and Fritz Steele in 1995, the Integrated Workspace model identifies three basic elements: better use of people, better use of space and better use of technology.

In terms of people, the strategy noted the need to move away from traditional mechanistic, hierarchical approaches to public service management, and to recognize that individuals within an organisation hold knowledge that can be used to improve and innovate output. As such it suggested organisations must:

- Better understand and respond to individual worker needs
- Change the organisational culture
- Change the organisation's traditional work processes
- Enter a period of organisational change
- Become a learning organisation

The model argued that organisational space played a significant role in achieving the cultural change required to achieve new styles of working. In particular it noted the need for physical space to:

- Encourage flexibility and collaboration
- Satisfying individual needs for personal comfort
- Enhance learning and knowledge

The need to invest in new forms of technology was also promoted, particularly as a tool to enable improved communication and information flow as well as to support new 'open and participative' organisational culture and work practices.

Becker (1995) argued in similar fashion that the following principles should apply to the public sector workspace:

1. *Use buildings more productively:* Workspace can be used more productively by viewing existing space more flexibly. For example rather than giving specific spaces names and labels, such as the boardroom or presentation room, see instead the qualities that they possess. This allows space to be used in different, often more creative ways.
2. *Locate facilities where people want to be:* Rather than adhere to the conventional hierarchical and functional norms of traditional bureaucracies, facilities should be located in locations that are less constrained and based on a social sense.
3. *Build for function, not form or image:* The building design should reflect the goals it wishes to achieve. In a learning focused organisation status symbols should be simplified or eliminated as a determinant of workplace form.
4. *Build for change and expect to change it:* New workspace should encourage flexibility and allow for regular changes in use.
5. *Encourage spontaneity:* Facilities should be designed to allow for flexibility and change. As such, designs should not be so lean and efficient so as to disallow future improvements to organisational practice.

6. *Encourage informal contact:* Creativity and employee wellbeing are dependent upon high quality interchange with others. Every work setting should have a range of interaction spots with sofas, armchairs, coffee tables and softer lighting. Leaders must additionally create conditions to encourage their use.
7. *Speed up group development:* Innovation emerges best through a culture of collaboration and shared experience. Space should be provided to allow for development of group work.
8. *Encourage a heart of the community:* Workplaces are traditionally a collection of individuals and teams who contribute to a given task. Little opportunity is often afforded to the encouragement of interaction between organisational members. To encourage such communication, facilities should be created to draw people together. Known as the heart of the community this could include a central atrium, café, learning resource centre, gym, or gallery etc.
9. *Make socialization a requirement:* The benefits of social space and informal interaction can only be realized if such activities are embedded into the culture of the organisation. Leaders must play a role in encouraging their members to move away from their traditional workspace and engage with the wider organisational community.
10. *Encourage workplaces that are more like home:* Research undertaken by Becker in Steelcase Inc and Andersen Consulting (1994) notes the need to create a workplace environment in which people feel at home in. This means having a variety of kinds of space and having artifacts that people like. For example this can include concentration as well as team space, fun space, and the opportunity to personalise individual desks and offices.
11. *Create a home base:* The increase in teleworking and non-territorial working provides a need for organisations to create an environment that will enhance connections between occasional users of a building and their colleagues. This can include hotdesking space integrated within areas of the building, team space and informal social spaces.
12. *Pay special attention to entrances and exits:* Supporting the work of Schein (1995), Becker (1995) suggests the entrance to a building shapes an individual's perception of the organisations culture. As such significant emphasis should be placed upon creating an environment which is both welcoming and visually demonstrates the importance of communication and collaboration.

The WwW initiative was further shaped by the work of Duffy (1976, 1992 and 1997) and Becker and Steele (1995 and 2004), focusing upon the role of physical space as an organism that can aid the health of an organisation and assist it to survive and succeed.

Using Becker and Steele's (1995, p22) model as a base, the initiative considered that facilities can influence the health of an organisation in the following ways:

1. *Sense of Identity* – physical artifacts such as decorative styles, location of offices, allocation of space, boundaries, signs and artwork should be used to provide a clear sense of the organisation's mission, values, style and culture.
2. *Reality Testing* – members within the organisation should be regularly updated on what is happening both inside and outside the system. This can be achieved through better integration of management and subordinates, formal and informal communication systems, and investment in information technologies.
3. *Task Accomplishment* – the physical space should facilitate the achievement of tasks and encourage a task-based culture. This can be achieved through the creation of high quality individual and group workspace.
4. *Problem Solving and Adaptability* – organisation culture and physical space should encourage innovation, problem solving and co-determination of workplace practice. This is influenced by the degree of flexibility built into work settings and facilities management policy. Becker and Steele (1995) particularly cite the need for a shift from work space allocated on the basis of rank and the use of a variety of activity spaces that people can choose from based on their task in hand.
5. *Energy Flow* – it is considered greater organisational knowledge and energy can be created through collaboration, teamwork and the reduction of physical and perceived boundaries between groups and individuals.

In summary, Becker and Steele (1995, p25) suggest that the following series of assumptions or directions may encourage organisations to move away from the more static views of workplaces and how they can be used:

Old Assumptions	New Assumptions
One person, one place 'owned' by them exclusively	One person, a number of different places used jointly
Work happens at the desk, the terminal, or in meetings	Work happens all day long wherever the person happens to be, in many different spots
Facilities are best used as rewards or perks for one's level in the organization	Settings are tools to get things done, and as such are too expensive to use as status symbols
Workplaces should project a certain image to visitors	Workplaces that are well designed for their users will inherently project the right image
Personal choice by users about facilities is too slow, complicated and potentially chaotic	Appropriate choices by users result in better settings and stronger commitment to using them well
Saving on space costs is always a gain for the organisation because it improves the bottom line.	Space costs should be controlled without compromising the best achievement of overall objectives, which is the organisation's reason for existence

Table 1. Old vs New Assumptions Using the Criteria for Organisational Health. Becker, F and Steele, F, (1995) p25.

2.3 Goals of Working without Walls

WwW interpreted the work of the Integrated Workspace and Organisational Health models through the development of three overarching goals:

1. Maximize productivity
2. Achieve value for money
3. Use the physical workspace as an expression of the organisation's values.

To achieve such goals, five themes and influences of change were established:



Figure 2. Themes of Working without Walls. (2004)

2.3.1 New Workstyles

Headlined under the ‘Learning Organisation’ banner, innovation and new ways of working were at the heart of the government’s reform agenda. In order to create the conditions for learning and knowledge working to become part of public sector culture, the WwW initiative encouraged public sector organisations to create internal layouts that allowed staff to find the most appropriate environment to match the tasks they were performing. Key features of this theme are outlined in table 2:

New types of workspace	Mobility and telecommunication	Hot-desking and hotelling
<p>The removal of individual cellular office space and fixed desks and greater inclusion of more informal shared spaces to aid interaction and collaboration.</p> <p>The inclusion of space to support individual focus, concentration and reflection such as quiet zones or carrels.</p>	<p>Investment in tools to encourage mobility and remote telecommunication. For example, roaming log-in protocols, use of wireless networks and mobile telephony systems such as videoconferencing, e-mail, voicemail and group pick up.</p>	<p>Undertake a review of whether desks and workstations were required on a one to one ratio. The WwW initiative considered that giving staff a fixed desk may well stifle opportunities for mobility. Concepts such as hotdesking (shared use of non-assigned desks) or hotelling (often termed Non Territorial Working (NTW) to be considered.</p>

Table 2. Summary of New Workstyles, Working without Walls (2004).

According to WWW the adoption of the new workstyles would encourage greater liberation of employee ideas, creativity and subsequent learning, and thereby express the organisation's values.

2.3.2 Openness, Communication and Collaboration

Creating a culture of innovation and creativity requires organisations to break away from traditional structures and hierarchies and to encourage greater intra and extra organisational communication. The WWW initiative considered harnessing technology and designing working environments which facilitate communication and collaboration, would provide substantial benefits such as faster decision making and greater responsiveness.

Key features of this theme are outlined in table 3:

<p>Improved Use of Information and Communication Technologies (ICT)</p> <p>Introduce ICT as a means to enhance opportunities for intra organisational collaboration. In particular, virtual communication tools such as video conferencing and mobile telephony alongside intranet sites and email as means to disseminate information to large numbers of staff and keep people updated on relevant issues.</p>	<p>Improved Opportunities for Interaction between Organisational Members</p> <p>Review multiple locations and promotion of single base organisations to enable formal and informal interaction.</p> <p>Creation of space to encourage spontaneous interaction, including wide central corridors and large gathering places (such as atrium areas, restaurants, malls and piazzas).</p>	<p>Improving External Communications</p> <p>Create open and informal public spaces within public buildings to further enhance engagement with external stakeholders, particularly the general public. This could encourage greater engagement with the service and commitment to the political process.</p>
<p>Changing the Traditional 'Meeting Culture'</p> <p>Undertake a review of existing meeting culture which can be prescribed, hierarchical and threatening for junior organisational members. Introduce greater provision opportunity for informal meeting settings to enable a wider range of relevant stakeholders the opportunity to participate in the decision making process.</p>	<p>Creating New Open Working Environments</p> <p>Create shared spaces for intra and extra team collaboration, and remove traditional cellular space allocation linked to grade and status.</p> <p>Locate co-dependent teams together to create conditions for better information and knowledge exchange, and subsequent learning.</p>	<p>Balancing Interaction and Privacy</p> <p>For public sector organisations that already embrace the concept of open plan working, undertake a further review of unnecessary physical barriers such screens between desks, piles of files and paper, strategically placed filing cabinets and plants.</p> <p>Provide separate concentration space.</p>

<p>Changing Space and Culture</p> <p>Engage in a process of wider organisational re-engineering, including promotion of new, participatory styles of management, removal of hierarchical and functional barriers, and adopt task and project based working,</p>		
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Table 3. Summary of Openness, Communication and Collaboration, Working without Walls (2004).

2.3.3 The Less Paper Office

To further encourage greater communication and interaction amongst building users, the third theme of WwW was to reduce the volume of paper public sector organisations retain.

A reduction in the use of paper was driven by a desire to improve the appearance of the physical environment and remove a culture of information as power. The WwW initiative placed high emphasis upon the design and ambience of the workspace as a driver of individual wellbeing and subsequent productivity. Specifically, the use of storage space away from working areas was encouraged. This approach both improved workspace appearance and encouraged greater mobility of personnel as a facilitator of knowledge sharing and learning.

Key features of this theme are outlined in table four:

<p><u>Clear desk policies</u></p> <p>The implementation of an evening clear desk policy throughout the organisation.</p> <p>Provision of separate individual storage space in the form of lockers or trolleys stored in a neutral location.</p>	<p><u>Printing Facilities</u></p> <p>Co-location of support facilities such as printers, copiers and facsimile machines to encourage reduction in paper and greater team interaction.</p>	
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Table 4. Summary of The Less Paper Office, Working without Walls (2004).

2.3.4 Identity and Expression

In the light of greater openness and transparency in public services, expression of identity and values is an essential ingredient to achieving greater connectivity with the public, as well as to help attract and retain key staff.

As such, the fourth theme of WwW related to the impact of workspace design in meeting the needs of organisational stakeholders such as the public and employees. The initiative provided a range of tools designed to express identity and brand of the organisation through the interior design of the building. Key features of this theme are outlined in table five:

Providing a front door	Employee Impact	Colour
<p>Creation of large and open reception spaces and communal meeting spaces such as cafeterias and atria to encourage interaction..</p> <p>Provision of central reception areas to create positive first impression for visitors and staff, alike.</p> <p>Use of glass and sightlines in communal space to indicate accessibility and transparency.</p>	<p>Enable expressions of identity at a personal, team and corporate level.</p> <p>Encourage display of personal effects at individual workspace and displays of team achievements in group space.</p>	<p>Detract from the preoccupation with corporate colouring and adopt more experimental approaches to colour as a tool to represent mood, stimulation and workplace purpose.</p> <p>Use colour to reinforce the message that 'this is not the office it used to be' and re-emphasize cultural and behavioural change.</p> <p>Use splashes of colour on key walls, surfaces and furniture to assist in wayfinding and helping to break up or distinguish the purpose of different areas of a workplace.</p>
<p>Staff Involvement and Participation</p> <p>Engage organisational members in the design decision making process and shaping of organisation identity.</p> <p>Ensure extensive staff consultation and the creation of a consultation user group(s).</p>		

Table 5. Summary of Identity and Expression, Working without Walls (2004).

2.3.5 The Drive for Quality in Design and Procurement

In line with then Prime Minister Tony Blair’s ambitions for improved quality of public buildings in Britain, and the goals of efficiency and value for money embedded in all aspects of public sector reform, the WwW initiative places significant emphasis upon the importance of gaining greater value from building stock.

As the largest client of the UK construction industry, the initiative provides a number of approaches to create high quality, value-for-money public buildings that are both sustainable and accessible by all. In particular, it considers the importance of greater accountability, innovative forms of building management, sustainability, user wellbeing, and accessibility. Key features of this theme are outlined in table six:

<p>Accountability</p> <p>Develop alternative and innovative approaches to the procurement and management of property, including the Private Finance Initiative (PFI) and other forms of Public Private Partnership as an opportunity to increase value for money, transfer risk, harness the entrepreneurial skills of the private sector and most notably adopt building design principles more commonly associated with private sector buildings.</p>	<p>Innovative forms of building management</p> <p>Encourage outsourced facilities management to enable public sector organisations to focus on their core competences, such as the implementation of policy and delivery of services. Termed Total Property Outsourcing, this typically relates to the large-scale divestiture of building ownership, together with responsibility for management and maintenance. The supplier therefore accepts a greater share of the risk in owning, managing and maintaining premises to suit the needs of the occupier.</p>	<p>Design and Sustainability</p> <p>Adherence to the Design Quality Indicators (DQI) to ensure buildings are fit for purpose in relation to organisational aims, objectives and values; are constructed to ensure flexibility and longevity; and are managed in line with their original goals.</p> <p>Recognition of the Building Research Establishment Environmental Assessment Method to ensure appropriate environmental management, energy use and user health and wellbeing.</p>
<p>Accessibility</p> <p>Advancing the requirements of the Disability Discrimination Act (2005) to broaden the scope of accessibility and create more functional working environments for those with disability through better use of spatial planning, wayfinding, colour and texture.</p>		

Table 6. Summary of the drive for quality in design and procurement, Working without Walls (2004).

2.4 Subsequent Guidance in Support of Working Without Walls

To further guide the WwW initiative, a subsequent joint research project by Design Consultants DEGW, CBPB and Arup, for the Commission of Architecture and the Built Environment, entitled *Office Design and its Impact upon Business Performance* (2005) was undertaken.

In relation to the achievement of learning organisation principles through workplace redesign, the report specifically suggests:

1. Increased opportunities for increased internal and external mobility within the organisation
2. Engage many people in the design process
3. Encourage user control of the working environment, supported by responsive facilities management
4. Take greater responsibility for relating office design to business strategy at all levels
5. Align workplace design with work processes, but anticipate continuous change in all areas of knowledge work, aiming for greater effectiveness
6. Shift from thinking primarily about the design of individual workplaces to creating the collective environments that are more appropriate for knowledge work
7. Use interior design to support and change organisational culture, exploiting the expressive potential of design
8. Provide flexible infrastructures that ensure connectivity
9. Use feedback as both a design tool, and as a means of monitoring that the workplace is delivering its full potential in terms of efficiency, effectiveness and intended impression

At its conception in 2004, twelve public sector organisations piloted the WwW initiative, each with their own individual goals and strategy.

3.0 LITERATURE REVIEW

3.1 Introduction to Literature Review

This chapter meets the objectives of:

To critically review existing literature in public sector management design, learning organisation and workplace design.

To identify and critique theoretical resources which suggest a positive relationship between particular types of workplace design and outcomes that generate learning.

This literature review enables understanding of the theoretical underpinnings of the WwW approach.

In order to ascertain which field of literature this study belongs, the author followed the guidance of Eisenhardt (1989) who notes, when undertaking applied research, the importance of collaborating with those with whom the outcomes of research is intended.

Based on existing policy within the public sector, and recognition for the need for further understanding of these areas (Gibson, 2007), the author and Project Directors from the Office of Government Commerce identified key themes of Learning Organisation and Workplace Design.

Upon engaging in this literature a number of preliminary tasks became necessary. Firstly a need to understand both the theoretical postulates that underpin support for WwW as a progenitor of learning organisation in the public sector, and, secondly the wider context of public sector reform. This contextual literature was heavily informed by research relating to the public administration movement, both informed by, and subject to the criticisms of bureaucracy and subsequent endorsement of the learning organisation approach which have given rise to a series of reform initiatives designed to improve innovation through learning.

Within the public sector, such initiatives have broadly been labelled as post-modern management, albeit with a highly particularised notion of the post-modern.

This literature review will therefore consider these themes in the following order; management theory and its influence on public management; modernist and post modern approaches within the context of the UK public services; the innovation agenda and learning organisation; and the emergence of organisational aesthetics as a driver of the learning organisation in the UK public sector.

3.2 Management Theory and Its Influence on Public Management

This section explores a range of management literature and its influence within public sector organisations. In his studies of the psychology of the physical environment, Sundstrom (1986) considers it is essential to review theories of organisation, in order to establish a framework for understanding the nature of the physical environment as represented in different theories.

There is no single view of organisation theory, or a single classificatory scheme of organisational theories (McAuley et al, 2007; Dipboye et al, 1994; Burrell and Morgan, 1979; Hatch, 1997; Strati, 2000) and as such, this study will discuss theories that are of particular relevance to learning organisation and physical aspects of the workplace in organisations, which in turn can provide context for the discussions that emerge in subsequent sections.

There is a long chronology testifying to the influence of business theory upon public management. Writers such as Taylor, Gulick, Urwick and Simon consider the scientific school of management, whilst Weber and later, Niskanen, Olson, and Osborne and Gaebler specifically focus on models of management within public sector environments. In a discussion of New Public Management, McAuley et al (2007) particularly note the transition from modern to postmodern forms of management.

3.3 Modernist and Postmodern Approaches - From Bureaucracy to Adhocracy

Emerging from the industrial revolution and creation of more formal organisations with structures for administering and controlling, the primary goal of modernist organisational theory was the integration of structure and systems with a view to maximising efficiencies in production (Smither, 1988).

Within this context, writers including Taylor, Gulick, Urwick, Niskanen, Olson and Weber, all note physical environment as an integrated aspect of organisational structure.

Writers including Christensen and Laegreid (2007) and McAuley et al (2007) particularly note the popularity of modernist principles in public sector organizations and suggest they are orderly and rational, often associated with the terms 'classical', 'scientific' or 'bureaucratic' management.

3.3.1 Scientific School of Management

Taylor (1911) a founder of the classical school, sought to create the optimum way to perform individual tasks that maximized efficiency and considered workers as units of production. Scientific management theory was founded upon four premises, namely, (1) finding the 'one best way' to perform the job; (2) systematic personnel selection and placement to match the worker to each job; (3) strict division of labour between management and workers; and (4) monetary incentives to attract and motivate workers to perform optimally (Dessler, 1980).

Taylor's (1911) preoccupation with time and motion and finding the optimum way to perform individual tasks that maximised efficiency of resources, took account of aspects of the physical setting. This went as far as to ensure it provided the most efficient means of the workers delivering output within an organisation system (Robbins, 1998; Sheldrake, 1996).

In his précis of his work, Carnevale (1992) suggests that Taylor considered structure and system was a key contributor to organisational effectiveness. His work placed little or no emphasis upon trust and co-operation between management and subordinates.

3.3.2 Bureaucratic School of Management

Similarly, Weber (1946), described by Lash and Whimster (1987, p1) as the foremost social theorist of the condition of modernity, considered that the adoption of a bureaucratic structure would increase efficiency of production in the organisation system.

The term bureaucracy is based on the premise that organisations can operate effectively and efficiently through a clear sense of hierarchy and authority. Weber's work noted the need for clear systems, processes and lines of authority. He promoted the use of mechanistic systems designed to remove the human dimension, commenting:

The decisive reason for the advance of bureaucratic organisation has always been in purely technical superiority over any other form of organisation. The fully developed bureaucratic mechanism compares with other organisations exactly as does the machine with non-mechanical modes of production. Precision, speed, unambiguity, knowledge of the files, continuity, discretion, unity, strict subordination, reduction of friction and material and personal cost. These are raised to the optimum point in the strictly bureaucratic administration. Its specific nature ... develops the more perfectly the more the bureaucracy is 'dehumanised, the more completely it succeeds in eliminating from official business, love, hatred, and purely personal irrational and emotional elements which escape calculation (Weber, 1946, pp. 214).

Weber (1946) suggested that bureaucratic structures would increase the speed and precision of work activities, minimise the ambiguity in work roles, and reduce interpersonal friction. In other words, people would know their jobs and be able to work together as smoothly as the parts of a well-oiled machine (Berry and Houston, 1993).

Beetham (1987) summarized Weber's basic features of a bureaucratic system as:

- Hierarchy: each official has a clearly defined competence within a hierarchical division of labour, and is answerable for its performance to a supervisor
- Continuity: the office constitutes a full time salaried occupation, with a career structure which offers the prospect of regular advancement
- Impersonality: the work is conducted according to prescribed rules, without arbitrariness or favoritism, and a written record is kept of each transaction
- Expertise: officials are selected according to merit, are trained for their function, and control access to knowledge stored in the files. (Beetham, 1987, pp11-12)

In summarizing, March and Simon (1958, p30) conclude "bureaucracy has the potential to be 'more efficient (with respect to the goals of the formal hierarchy) than are alternative forms of organisation."

In support of public sector bureaucracy, Brown and Steel (1979) consider that such rational approaches ensure service users receive uniform treatment, secured by a system of centralised authority implemented according to rule.

Du Gay (2000) provides one of the most comprehensive arguments in favour of bureaucracy, suggesting that the objectivity required by managers is not an impersonal dehumanized matter, but rather, it is the 'trained capacity to treat people as individual cases...so that the partialities of patronage and the dangers of corruption might be avoided' (Du Gay, 2000, p42).

Advocating bureaucratic practices within the public sector, Haynes (1980) argues such an approach public agencies to cope with increased tasks and provide impartial and accountable administration. He advocates the creation of strong functional specialisation (or departmentalism); the principle of vertical hierarchy for control, authority and communication; the emphasis on rights, duties, technical qualifications; and the rigid grading structures and standardised procedures (Haynes, 1980, p. 12).

In summary, modernist organisation theories (Taylor, 1911; Weber, 1946) viewed the physical environment as a tool which management could use to obtain the most efficient output from workers, or as an enabler of command and control of workers (Robbins, 1998). However, this focus on the structure and process to maximise efficiencies lacks consideration of the individual people within the organisation (Argyris, 1965), overtly 'dehumanises' them (Weber, 1946), and lacks consideration of aspects now considered imperative, such as trust and co-operation (Bitner, 1992, Camevale, 1992).

In conclusion, the term 'bureaucracy' and public sector organisations have been in close proximity. Advocates of the model argue its appropriateness, particularly when dependability and reliability are of the essence. However, literature relating to bureaucratic dysfunctions suggests it may not be the most efficient form of administration.

3.3.2.1 *The Issues of Bureaucracy*

There has been a tendency for writers to criticize the principles of bureaucracy, particularly noting its obsession with control and apparent disregard for a relationship between employees and their activities.

There is a common view that centrally-determined rational and efficient administration can conflict with the goals of individuals in authority and inhibit the efficient and effective operation of the organisation (Rose, 1999; Bos and Willmott, 2001; Cesarani, 2004).

Lawton and Rose (1999) further discuss the relationship between rules and loyalty, suggesting members will identify with rules and procedures to varying degrees; some will be exceptionally loyal, others will identify very closely with the success of the organisation, whilst others may feel stifled and demand greater freedom and opportunity to innovate.

Indeed, there have been a number of studies which highlight:

1. rules can become ends in themselves;
2. problems of close supervision and vicious circles;

Rules can become ends in themselves

Etzioni-Halevy (1985) suggests that in bureaucracies rules are set by those in authority as a method of achieving control and achieving reliable and uniform behaviour. Merton's study (1940) shows how rules become internalised by those working for the organisation and therefore it becomes possible for people to lose sight of the objectives behind the rules.

The problems of close supervision and vicious circles

Research undertaken by Gouldner (1954) revealed that close supervision in the workplace raises two possible problems. Firstly, if workers are motivated they may do the job better without close supervision. Secondly, workers often associate close supervision with strictness and punishment. Gouldner observes:

Close supervision enmeshed management in a vicious circle: the supervisor perceived the worker as unmotivated; he then carefully watched and directed him; this aroused the worker's ire and accentuated his apathy, and now the supervisor was back where he began. Close supervision did not solve his problem. In fact, it might make the worker's performance in the supervisor's absence, even less reliable than it had been. (Gouldner, 1954, pp. 160-1.)

Rose (1999) notes subordination and control can reinforce low motivation of the workers.

Crozier's (1964) study of public service organisations in France further reveals rules leave no scope for individuals to exercise personal initiative. Consequently the organisation becomes increasingly rigid, innovation is stifled and those at the top of the organisation making the decisions concentrate overly on internal issues rather than adjusting the organisation to fit better with its environment. The very people with knowledge and facts at their fingertips, those at the operational level, are excluded from the decision and rule-making process.

Merton and Gouldner (1958) conclude that such a power-dominated environment leads to difficulties in responding to customer demands, stifles internal and external communication and can result in lower productivity and difficulty in completing the tasks of the organisation. Furthermore, they suggest that those seeking to control the organisation use impersonal rules, close supervision and centralisation which lead to increased frustration at all levels because decisions are not discussed.

The consequence of this is that those at the top of the hierarchy then move decision making further up the hierarchy, which only serves to aggravate the problems that they seek to solve. The problem is compounded by the fact that those lower in the hierarchy seek rules to govern relationships between subordinates and superiors in order to protect themselves from arbitrary or unpredictable decisions by the manager.

3.4 A Postmodern Alternative

Whilst champions of bureaucracy such as Paul Du Gay consider bureaucracy ensures consistency, uniformity and fairness, critics contend that observance to such principles stifles the flexibility, innovation and responsiveness required to enable organisations to adapt in new operating environments (Albury, 2005; Massey, 1993).

New forms of management, often termed 'postmodern' have emerged that provide alternative models, often designed to create flatter, less hierarchical organisations, based on the principles of creating a shared vision, greater member autonomy and promoting entrepreneurship and risk-taking. Whilst the term 'postmodern' has a relatively long history and draws upon a variety of strands (Anderson, 1998), the concept in relation to management theory, was first applied in the 1950's by authors including Olson and Drucker.

Indeed, Drucker first applied the term 'postmodern management' to organisations, in his book, *Landmarks of Tomorrow* (1957). By postmodern, Drucker, discusses the need for a shift from the static bureaucratic structures that had traditionally dominated to loosely coupled, fluid, organic, and adhocratic organizations (Hardy & Parker, 1999).

In providing an updated commentary, Long (1999) suggests "If, as many now argue, the structural defenses against task anxieties and the insulated cultures provided by the dependency hierarchies of more traditional organizations no longer serve in the current environment, the question must then be posed-what new defenses do we have available?"

White (1999) recommends finding an appropriate "role-person balance" and exploring "the dilemmas of openness" where individuals are more open, present, authoritative, and vulnerable. This way of being can develop into a "culture of openness," which he sees at the core of a humane and successful postmodern organization."

In response, Boje and Dennehy (2000) suggest the postmodern organisation is one which comprises a networked set of diverse, self-managed, self-controlled teams with poly-centers [many centers] of coordination that fold and unfold according to the requirements of the tasks. Likewise, these teams are organized in flat design, employees are highly empowered and involved in the job, information is fluid and continuous improvement is emphasized throughout.

Advocates of the postmodern school, such as Wallace (1998) and Applebaum and Batt (1994), argue that this approach to management is more satisfying and motivating to a workforce, however research undertaken by Sennett (1998) suggests this is not always the case, citing examples from a Greek Bakery in Boston in which employees were uncertain of their roles, confused by levels of freedom and flexibility and frustrated at the changing scope of their job roles.

Such concerns support earlier criticisms of empowered organizations, which feared employees may seek too much flexibility in their role, resulting in a lack of specialisation or skill (Wood, 1989).

In summarizing the characteristics of a postmodern management approach, Clegg (1990) suggests seven imperatives:

1. *Clear articulation of the organisation mission, goals, strategies and main functions* - this should particularly emphasize the commitment to innovation, team work, involvement of organisational members and flexibility.
2. *Arranging Functional Alignments* – this emphasizes the development of semi autonomous working conditions based on functional specialisms, whilst still operating within a hierarchy. Self managed teams, overlapping roles and a task culture are key components of such an approach.
3. *Mechanisms of Co-ordination and Control* – this emphasizes a move towards greater democratic forms of power structure and use of empowerment. Well developed, reliable, communication channels and free-flowing information are a characteristic of democratic power forms, alongside flatter organisational structures.
4. *Constituting Accountability and Role Relationships* – the organisation will encourage opportunities for skills development and multiskilling to develop greater flexibility in its workforce.
5. *Planning and Communication* – the organisation will adopt a long term focus, highlighting the importance of strategy and long term transformation, rather than short term gains.

6. *Relating Rewards and Performance* - a focus will be placed upon achieving organisational improvement and performance through team collaboration rather than individual reward.
7. *Achieving Effective Leadership* – the leader will be placed at the heart of the postmodern organisation. Their role will be to generate mutual trust and commitment and to disseminate organisational values and culture.

In summary, Clegg (1990) presents a schematic of the differences between a modernist and postmodern organization, reproduced in Table Seven:

	Modernity	Postmodernity
Mission, Goals, Strategies and Main Functions	Specialisation	Diffusion
Functional Alignments	Bureaucracy Hierarchy	Democracy Market
Co-ordination and Control	Disempowerment	Empowerment
Accountability and Role Relationships	Extra-organisational Inflexible	Intra-organisational Flexible
Planning and Communication	Short term techniques	Long term techniques
Relation of Performance and Reward	Individualised	Collectivised
Leadership	Mistrust	Trust

Table 7. Postmodern versus Modern Organisational Forms, Clegg (1990, p203)

Whilst Clegg's (1990) work is widely cited in public service literature, it is based on a study of private sector organisations in Japan; subsequent research has found Japanese managers are less satisfied with their jobs than their western counterparts (Meek, 2004). It is also considered that such models have led to overwork and bullying (Hancock and Tyler, 2001).

In particular, it is suggested that employees can often feel overwhelmed by the additional responsibility of empowerment and wider involvement in the decision making process, particularly when such initiatives have never been considered an expectation of their role. There can also be a sense of abandonment, particularly in a culture of significant flexibility where employees are allowed freedom of location.

Co-ordination can also become difficult in such a culture and it can also be argued that a policy of diffusion may lead to a deskilled workforce or one which is able to pass responsibility for difficult decisions.

Legge (1995) also suggests that the offer to continually improve may not be realistic in routine operations, resulting in worker disincentive.

Furthermore, authors such as Child (2005), citing empirical research carried out in Danish organisation Oticon, suggest postmodern models of management are often an unrealistic ideal and organisations will struggle to fully break away from bureaucracy, others, including Whittington (2001) and Westenholtz (2003) highlight the importance of pursuing this approach, particularly in operating environments where developing ideas and capability are paramount.

3.4.1. Postmodern Management and the Public Sector

Fenwick and McMillan (2010) summarise the earlier contributions of Gray and 't Hart (1998), Bevir and Rhodes (1999), Lyon (1999) and Christensen, Lie and Laegreid (2007), each of whom note the growth postmodern forms of management in the public sector as a result of the inadequacies of modernism and bureaucracy.

Common themes to emerge throughout the postmodern literature were the terms 'community' and 'voice' (Clegg, 1990; Hatch, 1997; Parker, 1992; Hassard and Parker, 1993; and Kilduff, 1993). Jacobs (2009) further builds on this view noting the role of encouraging narrative from individuals in order to better make sense of the world around them. Such a view is supported in the earlier work of Nonaka and Takeuchi (1995) and Common (2004), who note a critical theme of the postmodern movement being the need for greater interaction and knowledge sharing within organisations.

Writing in a public sector context, postmodern management writers including Christensen, Lie and Laegreid (2007), Gregory (2007) and Meier and O'Toole (2006) support the actions of recent policy makers, arguing that scientific and bureaucratic forms of organisation are incapable of responding to the needs of a dynamic public sector operating environment and stifle innovative practice. However, this should not suggest there is a complete shift change; analysis of postmodern approaches suggests many of the principles of modernist management remain, with additional emphasis upon social systems and division of labour. Lash and Bagguley (1987) suggest this is a bringing together of features, whilst McCauley et al (2007) refer to postmodernism as social and cultural realms becoming interwoven.

As such Fenwick and McMillan (2010) conclude that within a public sector context. postmodern models of management are typically based on practice that encourages high degrees of member participation and empowerment, strong internal networks, opportunities for flexible working and risk-taking.

3.5 Public Service Reform - From Public Administration to Post Modern Management

Throughout the past three decades, the UK has experienced rapid public sector reform, particularly linked to the need to transform public service delivery and modernise public institutions (Borraz and John, 2004; Leach and Wilson, 2004; Pollitt and Bouckaert 2000).

The UK government, alongside governments across the globe have reorganized and restructured public organisations in an effort to produce better services (Boyne et al. 2003). Indeed, the Blair government stated that delivery on its pledge to raise service standards was the single most important criterion for judging the success or failure of its second term of office. This has triggered a vigorous debate on potential approaches to achieve such goals.

At the heart of public service reform is the idea that improvements to the way in which public services can be governed, managed and delivered will produce improved outcomes for citizens. Within the UK, there has been a major process of management reform aimed at enhancing the capacity of public services to deliver improved outcomes for citizens (Newman, 2001; Stoker, 2004).

Central to such reform was the rise of managerialist ideologies throughout the 1980's and 1990s, which particularly promoted the widespread adoption of traditionally private sector management models in public services (Hartley and Skelcher, 2008).

A review of public sector literature suggests that some of the most commonly adopted management models during the period 1990 – 2010 include:

New approaches to leadership and management	Team based management, change management, transformative leadership, service management, total quality leadership, knowledge management, value based management and learning organisation.
New approaches to organisational structure	Divisionalised structures, flexible structures, matrix structures, collegial structures and single purpose structure.
New approaches to people management	Motivational initiatives, career planning, competence mapping, performance appraisal developmental dialogues, headhunting, downzising and empowerment.
New approaches to managing activities	Value Process Management, Business Process Engineering, Total Quality Management, time planning, quality assurance systems, Six Sigma, lean production, lean management and benchmarking.
New approaches to organisational culture	Customer and service culture, task culture, Citizens Charter, tribal culture and learning culture.
New approaches to financial control	Management by Objectives, Management by Objectives and Results, balanced scorecard, Activity Based Costing, Activity Based Management, Economic Added Value and contract management.

Table 8 Summary of commonly adopted management models during the period 1990 – 2010.

Hartley and Allison (2002) suggest new management approaches were vital to the economy, efficiency and effectiveness agenda, and particularly to promote the desired culture of learning and innovation as a driver of service improvement. Such importance is further evidenced by Boyne (2003) who discusses the centrality of management and its models as a means of achieving public service improvement. Examining evidence from 65 quantitative empirical studies in key international journals, he concluded that the style of management, management models adopted and resources available showed a significant relationship with public service improvement.

A number of writers associate the adoption of such private sector management ideas with a move from the traditional public administration model to new forms of management. (Massey and Pyper, 2005; Pollitt and Bouckaert, 2000; Huges, 2003, Hood, 1998).

3.6 The Public Administration Model

The traditional public administration model is closely aligned with the principles of bureaucracy and describes a public sector organisation primarily concerned with the achievement of equity and fairness, attempting to find a uniform provision of service through centralized control using standardized employment practices, and legitimated through democratic accountability (Greener, 2009; Dunsire, 1999; Stewart and Walsh, 1992). Greener (2009) emphasizes the presence of a hierarchical chain of command within the public administration model, based on the principles of bureaucracy, with an emphasis upon rules and clearly defined employee roles.

In attempting to provide a guide to the characteristics of public administration, Minogue, cited in McCourt and Minouge (2001, p3) suggests organisations are often based on the following principles:

1. There is a clear separation between politics and administration and a distinct role for all.
2. Administration should be continuous and predictable, operating on the basis of written, unambiguous rules.
3. Administrators should be recruited on the basis of qualification, and should be trained professionals.
4. The organisation should reflect a functional division of labour, and a hierarchical arrangement of tasks and people.
5. Resources should belong to the organisation, not to individuals working in the organisation.
6. The principle motivation should be a sense of duty, of public interest, which should override organisational or private interests.

Subsequent research by Boyne (2002, p117) examining the differences between public administration and models of management commonly associated with private sector organizations notes that whilst there are differences in relation to operating environment, goals, structures and values, the two areas that most differ relate to levels of bureaucracy and organisational commitment which is considerably weaker in public sector organisations.

A more recent study by Greener (2009) highlights further differences between organisations adopting the public administration model and those who embrace private sector principles. The most notable differences relate to the importance of status, entrenchment, management power, reluctance to hear stakeholder opinion and lack of competitive structures.

Whilst much of this research is based upon studies of US government departments, common themes of public sector structure and culture emerge as key determinants of the style of management adopted within organizations within the UK.

3.6.1 Discussion of Public Sector Structure

In reviewing the literature relating to public sector structure, a number of common themes have emerged. The first of these is 'rationality', used both positively and negatively.

Nadler and Tushman (1991, p544) define the rational organisation as:

“One in which activities of a number of people are co-ordinated for the achievement of some common explicit purpose or goal, through division of labor and function, and through a hierarchy of authority and responsibility.”

A review of literature relating to the rational public sector structure suggests it is characterised by formal positions and rules indicating who can and cannot undertake activities.

Such positions and rules are expressed in formal artifacts such as organisational charts, manuals, rules and regulations. Furthermore, there is an implicit assumption that relationships between those holding senior positions and their subordinates are impersonal and that a power distance exists.

Hierarchy is typically tied to a career system, in which members endeavour to rise to higher positions on the basis of qualification, merit and performance.

There are significant levels of horizontal specialization, in which members will be grouped into specific units and tied to concrete, well-defined roles. Rules and procedures exist in relation to who shall carry out these roles and how they should be accomplished. Such complex structures adopt a centralized design in which decisions are almost always taken at senior management level.

Such structures constrain how tasks are carried out, and there will be clear lines of demarcation between territories. Individual expertise is encouraged and tasks will be completed in a routine manner.

Such structures may fail to realize the importance of coalition or synergy. Teams or individuals within public sector organisations may recognize their own goals or objectives, yet not understand how they relate to other parts of the organisation. The consequence of such a singular perspective often results in duplication of effort, conflict and issues of trust.

3.6.2 Discussion of Public Sector Culture

In reviewing the literature relating to public sector cultures, a number of common themes have emerged.

Public sector organisations have typically adopted formal culture in line with their rational structure. This is distinguished by formal norms associated with mechanical features such as closed communication, communicated laws, rules and hierarchy. Handy (1992) terms this a 'role culture'.

Public sector literature places much emphasis upon culture providing a framework of appropriate behavior, or appropriateness. Terms such as 'consistency', 'simplicity', 'clear guidelines', 'mental maps', and 'precedence' are commonly used, suggesting culture relates to the development of standardized, almost intuitive actions, which members can learn through active or passive indoctrination.

There is further suggestion that frustration from a lack of freedom often leads to the adoption of informal norms in which interpretations of rules and guidelines emerge. In their summary of the literature, Rashman et al (2010) suggest this cultural heterogeneity has been mainly positive as it has been linked to greater competence, skills and flexibility – an early indication of innovation.

Rashman et al (2010) further suggest the role of the leader is significant in shaping public sector culture. Leaders help shape the identity of a public organisation through dissemination of critical symbols, rituals, routines, stories and myths. Again, the outcome of such indoctrination is very much based on the leaders' history, values and personal qualities. It could be argued that the emphasis upon length of service and qualification as a route to leadership roles has further embedded the promotion of traditional rational values and a reluctance for leaders to encourage practices outside of their understanding.

Christensen, Lie and Laegreid (2007) additionally suggest the role culture has shaped the rational values within public sector organisations. In particular the emphasis upon explicit job descriptions, explicit delegated authority and highly-defined structures ensure power derives from a person's position and little scope exists for expert influence.

It is these characteristics which have become synonymous with the public administration model, and which the reform agenda suggests must be changed.

3.7 A Call for Change

With increasing criticism that public administration approaches were inefficient and self serving (Greener, 2009) and limited in terms of practical applicability (Massey and Pyper, 2005), a move towards a new model based on private sector management principles was articulated.

Early literature in this field suggests management approaches such as discretion, proactive decision making, and empowerment, are key elements of achieving the goals of public service improvement (Bovaird and Löffler, 2009; Pollitt and Bouckaert, 2000; Massey and Pyper, 2005).

Massey and Pyper (2005, p4), highlight that a key element of new management approaches reflected new ways of making decision.

Termed 'new public management', an emphasis was placed on developing approaches to achieve results. Clarke and Newman (1997) consider that this term is associated with demonstrating a new set of symbols and meanings from public administration – signaling an ideological shift. Other writers (Hughes, 2003; Massey and Pyper, 2005) suggest 'new public management' as an ideologically rooted cluster of activities, techniques and aims adopted in the UK public service reforms of the 1980s and 1990s.

Massey and Pyper (2005) associate the term New Public Management and postmodern management as an attempt to modernize government from an individualist perspective. Whilst the term 'individualist' holds many interpretations within the literature, common to all is the reduction of central control and encouragement of traditionally private sector management practices.

A summary of literature developed by Hood (1998), Greenwood, Pyper and Wilson (2002) and Massey (1993), suggests New Public Management is a perspective that:

1. Calls for attempts to peg back the growth of government
2. Recognises and incorporates the internationalization of aspects of public administration and government and the provision of goods and services
3. Embraces privatization
4. Embraces marketisation
5. Explores and embraces the delivery of public services based on greater efficiency, effectiveness and economy
6. Often leads to the breaking up of large bureaucracies into discreet, single purpose agencies, sometimes in preparation for their privatization
7. Concentrates on the role of the individual citizen as a consumer of services and seeks to deliver greater value, choice and accountability to the individual citizen
8. Seeks to empower stakeholders as individuals
9. Explores new structures of government and service delivery based on the best practice in the private sector and involves the private sector wherever possible

Supporting this work, Minogue (2001), cited in McCourt and Minogue (2001, p21) provide the following characteristics of New Public Management:

1. A separation of strategic policy from operational management.
2. A concern with results rather than process and procedure
3. An orientation to the needs of citizens rather than the interests of the organisation or bureaucrats
4. A withdrawal from direct service provision in favouring of a steering or enabling role.
5. A changed, entrepreneurial management culture.

Whilst much public management literature relates to the transfer of provision to private sector and subjecting public services to market disciplines, organisational development approaches are recognised as a key driver of achieving a changed, entrepreneurial management culture. This is further emphasised in the 2006 Cabinet Office paper, The UK Government's Approach to Public Service Reform.

This paper outlines four main approaches to fulfill the goals of New Public Management:

1. The use of competition
2. The use of performance measurement and management
3. Citizen and user engagement
4. Organisational Development and Capacity Building

3.8 The Organisational Development Approach

The organisational development approach to public management reform was launched in 2006 by the now disestablished Office of the Deputy Prime Minister.

With an overarching goal to seek public service improvement, it termed organisational development as:

“the practice of planned intervention to bring about significant improvements to organisational effectiveness.” (HMSO, An Organisational Development Resource Document for Local Government, 2006, pv).

Four approaches were cited as integral to achieving such improvements:

1. People based approaches: These take the view that organisations are best developed by developing their ‘people’. If staff are well trained, well motivated and feel well treated then good organisational performance will follow.
2. Quality based approaches: These hold that organisations are best developed through rational techniques that analyse current practice and that seek technical changes to bring about improvement.
3. System based approaches: These see organisations as a set of interrelated parts and hold that change comes from developing awareness of the ways in which the parts relate to each other, and finding ways of changing the system all at once.
4. Dialogue based approaches: These suggest that organisations cannot change through introspection. They are transformed through developmental conversations that happen between the organisation and its customers and partners. (HMSO, An Organisational Development Resource Document for Local Government, 2006, p13).

It is considered that the adoption of such approaches can act as a key enabler of the change from public administration to public management and aid necessary improvements to public service systems, behavior and culture.

Much of the literature relating to public sector reform and need for innovation draws upon management and organisation theory, particularly the move from modernist to postmodern forms of management.

Indeed, in their review of the postmodern literature in a public sector context, Fenwick and McMillan (2010) cite three practice based approaches to have emerged, namely organisational learning, evidence based policy making and comparative public policy. Furthermore, they note common reference to the term learning organisation used within public sector policy and guidance, including, the Modernising Government White Paper (1999), the Cabinet Office's (2001) Better Policy Making initiative, and the Cabinet Offices (2005) Professional Skills for Government programme.

The terms postmodern management, learning organisation and innovation are further cited by authors including Hartley (2008), Albury (2005) and Peterson (2009). Such literature is commonly framed in what has been termed the Innovation Landscape (Hartley, 2008).

3.9 The Innovation Landscape

Albury (2005) challenges the modernist, bureaucratic form of public sector organisation suggesting it is inefficient, disabling and one which stifles innovation and initiative of individuals.

The Modernising Government White Paper (1999) noted a significant need for innovation and move away from the traditional frustrations of bureaucracy. Stewart (2003) considers a key tenet of this white paper and subsequent initiatives has been the concept of continuous change and innovation, characterized by the adoption of learning organisation principles.

Much of the content of this white paper emerges from the seminal work of David Osborne and Ted Gaebler, whose studies of public services in the US concluded with a number of organisational development approaches designed to enable a shift from a bureaucratic public administration mentality to entrepreneurial public management philosophy. Their text, *Reinventing Government: How the Entrepreneurial Spirit Is Transforming the Public Sector* (1992), concludes that such a move requires a change in the culture of the organisation and a subsequent change in the way bureaucrats operate. In particular bureaucrats will need to:

1. Initiate ideas and seek opportunities
2. Anticipate changes in the external environment
3. Expect success
4. Be open minded
5. Convince and not enforce.

Interpreting the work of Osborne and Gaebler, in their paper 'Seeing the Light' (2007), the Audit Commission considers innovation in a public sector service delivery context is defined as the process by which organisations develop new products, services or ways of doing things.

The papers conclude by suggesting models of working should be developed to:

- Encourage Novelty – create systems to encourage ideas and innovation, marking a break from its established practices. Altshuler and Zegans (1997) term this 'novelty in action' and Mulgan and Albury (2003) as 'new ideas that work.'
- Influence on Change – innovation results in an identifiable step change in the behaviour of the organisation. Bessant (2003) notes this essential stage and differentiates between invention as encouraging bright ideas and innovation, the process of embedding new ideas into the daily routine.

Such innovation takes two forms:

1. Service design or delivery innovation – providing a new service to users, or delivering existing services in a new way.
2. Process or managerial innovation – changing the processes, managerial structure, or organisational structure of an authority's back office or service delivery functions.

The White Paper 'Innovation Nation' (2008, p2) further highlights the need for innovation in public services. In this paper, the Rt Hon John Denham MP, then Secretary of State for Innovation Universities and Skills, suggests:

“We want innovation to flourish across every area of the economy We must innovate in our public services too”

“The expectations of public service users are rising. Customers rightly expect an ever-higher quality of public services that are more personalized and responsive to their needs. Those responsible for public service delivery must learn the lessons of open innovation and adopt innovative solutions”.

“Successful innovation will require cultural and organisational change. Challenges do not respect traditional departmental, service and sectoral boundaries and so new partnerships are necessary to generate and realize innovative approaches. There is an increasing recognition that the empowerment and incentivisation of front line workers and end users will be pivotal to achieving this”.

In further support of the need for innovation, the Rt Hon Lord Mandelson, then Secretary of State for Business Innovation and Skills, comments in the Department of Innovation and Skills paper 'Engaging for Success : Enhancing performance through employee engagement' (2009, p1):

“This report sets out what Government can do to help promote an understanding of just how much greater employee engagement can help improve innovation, performance and productivity across the economy. It launches a challenge that my department will take forward in the months ahead.”

In a speech supporting the innovation agenda, Cabinet Secretary Sir Gus O’Donnell (May 29 2009) noted:

“very talented entrepreneurs in the public sector, truly innovative in their policy making and coming up with good ideas for better services”.

The challenge for government, he acknowledges, is how to get better at nurturing such innovation, spreading success and helping departments “look over the fence” to learn from and share with others.

In particular, he highlights the need for leaders within public service organisations to revisit structures and hierarchies and connect with the frontline – the best ideas are near the action.

This is supported by Sir Michael Bichard, Director of the Institute for Government (2009) who at the same conference noted:

“We are going to have to look at fundamentally different ways of delivering services. Rhetoric about engaging with the frontline still outstrips the reality”

However, Albury (2005) notes that ‘innovation occurs more frequently in rhetoric and discourses in public service improvement. This is not surprising given that it is a term redolent with generally positive resonances – modern, new, change, improvement’ (p51).

In a recent I&DeA report, 'New Routes to Better Outcomes' Peterson (2009) is less convinced about the reality of innovation in public sector organisations. His work particularly cites the barriers caused by a refusal to remove rigid and hierarchical structures and rules-based environments, which in turn discourage staff from openness and generating new ideas.

In making recommendations for improvement, Peterson (2009) suggests steps are needed to foster a culture of innovation through managerial leadership alongside a willingness to invest some time and capacity, and avoidance of a blame culture when and if innovative approaches do not succeed. He concludes by proposing that leadership and ability to see where exploitation of new ideas can make a real difference and where investment in innovation and experimentation could bring significant long-term gains.

In support of Henry Peterson, based on experiences within the US public services, Dr Michael Harris (2009), Research Director at the National Endowment for Science, Technology and the Arts (NESTA), considers fundamental reform of public sector structures is needed to achieve a real transformation in public services.

“If we still have departments that are organised along bureaucratic lines and traditional responsibilities they are going to default to responding to traditional agendas.”

“We need to free up and incentivise public sector workers and we are only going to be able to do that if we give them much more autonomy and control over what they do.”

“They need to feel they own the services that they are delivering. We do need a fundamental shift away from central targets and administration to frontline workers designing and delivering services as they see fit.” Harris (2009)

Such sentiments were reinforced in a National Audit Office report 'Innovation Across Central Government' (2009), which concluded that public sector organisations remained averse to creating opportunities for innovation and, of those who encouraged ideas, few were progressed to an implementation stage. The report further highlighted the reluctance to transfer idea generation away from senior management teams and made recommendations for public sector organisations to encourage greater innovation from front line staff and service users.

The report further acknowledged that at the front line, public servants could be reluctant to put forward ideas where they may not appreciate how innovation related to the goals of the organisation. Other barriers to innovation encountered by public servants included risk-averse attitudes within departments and a concentration on targets, budgets and high profile national initiatives.

In response to the findings of the Innovation Across Central Government, (2009) report, Sir Michael Bichard, Director of the Institute for Government, highlights particular barriers to the innovation agenda, including only 60% of UK government organisations operating any form of basic level employee participation scheme. He considers the freedom to innovate and empower the front line to suggest ideas essential to this agenda.

In one of the first studies reviewing the response to a growing need for innovation, Johnson et al (2005) noted many public sector agencies were developing strategies to empower employees and create a culture of shared learning and decision making, moving away from the traditional functional and bureaucratic management styles of the past.

One such strategy widely cited as a facilitator of innovation within the public sector context has been the Learning Organisation (Johnson et al, 2005; Hartley, 2008; Peterson, 2009; Blanchard, 2009).

3.10 Interpreting Innovation in the Public Sector – The Learning Organisation

Whether adopting the principles of Taylor, Weber or one of the numerous architects of management theory, many models have been tried, partially succeeded, and subsequently failed within the public sector. In response to the criticisms of modernist approaches and emphasis upon innovation as a driver of public sector success, a new philosophy was sought.

Fundamental to the proposition that people and an empowering culture were the key to organisational success, the learning organisation model has been widely cited as a panacea to the previously tried and failed management philosophies of the past (Rossiter, 1997).

Literature relating to the learning organisation frequently made reference to organisational learning, organizational knowledge and knowledge management.

In their review of literature relating to learning in the UK government sector, Gilson, Dunleavy and Tinkler (2009) suggest the field is not marked by particularly strong or distinctive contrasting positions and themes of research exist simultaneously within the literature. However, many writers offer useful distinctions including Easterby-Smith and Araujo (1999), Schofield (2004), Vince and Saleem (2004), Finger and Brand (1999) and Greve (2003).

Conceptualising these viewpoints, Easterby-Smith and Lyles (2005) propose a mapping of the terms. The mapping is based upon twin dichotomies of theory versus practice and process versus content.

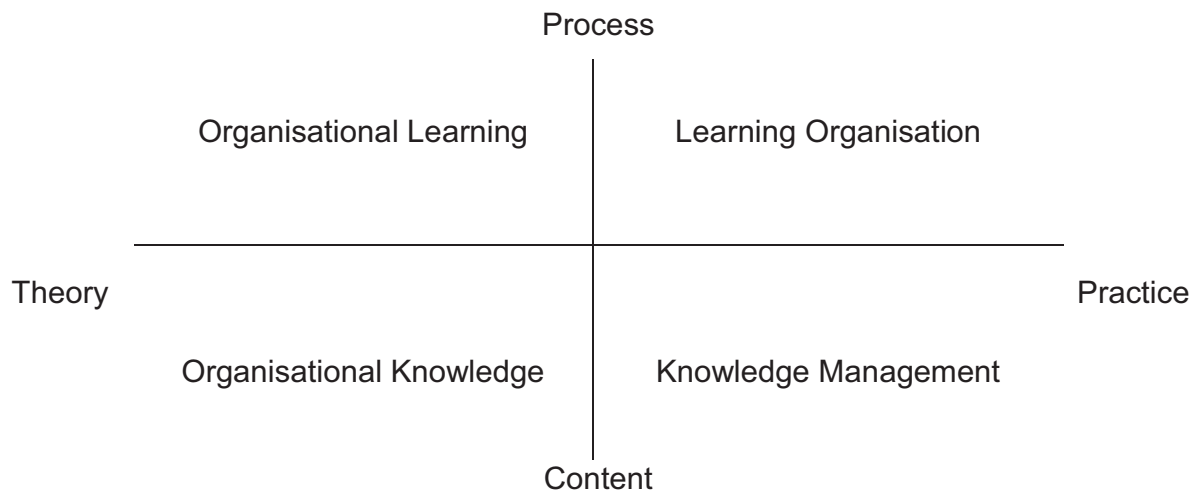


Figure 3. Mapping of the terms organisational learning and learning organisation, Easterby-Smith and Lyles (2005).

From the figure above it can be noted that whilst organisational learning and learning organisation are complimentary terms, the former is primarily concerned with theoretical development whilst the latter is focused upon practical application. Similarly there is a suggestion that the term knowledge refers to the 'content' which can ultimately lead to learning, whilst the term learning is the process the organisation takes to encourage knowledge.

Supporting this viewpoint, Gilson, Dunleavy and Tinkler (2009), Jones and Hendry (1994), and DiBella et al (1996) suggest the learning organisation concept is concerned with practical direction, whilst organisational learning relates to the theoretical ground of this inquiry.

Given the practical focus of a professional doctorate, coupled with the widely cited term 'learning organisation' with the public sector literature, and omission of the terms 'organisational learning', 'knowledge management' or 'organisational knowledge' within the WWW methodology, it was considered appropriate to solely focus this element of the literature review on the term learning organisation, whilst recognising this emerges from the wider body of study relating to organisational learning.

In presenting a case for the learning organisation approach, Pearn (1997, p11) suggests:

“the pressure of change in the external environments of organisations, whether manufacturing or service providers, whether public, private or voluntary, is such that they need to learn more consciously, more systematically, and more quickly than they did in the past....they must learn not only in order to survive but also to thrive in a world of ever increasing change and ever shortening predictability horizons, whether these are social, technological, political, local or global.”

From a political perspective, Prescott and Beecham (1999) highlight that the modernization agenda generally requires ‘public sector organisations to be open to innovation, ready to share experiences, and eager to learn’. They state the importance of public sector organizations adopting the principles of the learning organisation, and as such the term is a nomenclature that has been adopted by numerous public sector modernisers from 1999 onwards.

The ‘Modernizing Government’ White Paper (1999) outlines a number of approaches designed to develop a more creative operating environment, including ‘learning from experience’ (DETR 1999: section 2.6). This views policy-making as a ‘continuous learning process’ that will use evidence-based research to learn from success and failure and stimulate innovation. The White Paper recognizes the need for ‘the public service to become a learning organisation. It needs to learn from its past successes and failures. It needs consistently to benchmark itself against the best’ (DETR 1999: 6.12).

3.11 Learning Organisation Theory

Emerging from the organizational learning literature in the 1960’s by authors such as Argyris (1964) and Cyert & March (1963), the concept of the learning organisation gained attention in the latter part of the 20th century.

Easterby-Smith, Snell and Gherardi (1998) cite three key reasons for the rapid growth in the literature on learning organisations, namely: the speed of technological change, increased competitiveness and globalisation. As a consequence, it is no longer enough for organisations to rely on established practices. Instead opportunities must be created to invent new ways of doing things.

Whilst a literature search identifies many diverse approaches to creating a climate for the learning organisation to flourish, a lack of commonly agreed definitions of learning organisation has created some confusion (Prange, 1999).

Others suggest that the emphasis upon practice-based toolkits has aided understanding and applicability in this area (Huber, 1991; Nicolini & Meznar, 1995).

In presenting this section, both definitions and their subsequent interpretation into practical toolkits will be presented and reviewed.

3.11.1 Learning Organisation Defined

Most writers associate the origins of 'Learning Organisation' as a term from the work of Deming (1986), however, its widespread acceptance in modern organisational literature does not fully emerge until the early 1990's. The following definitions indicate such acceptance:

Tjepkma (2002, p10) specifically states a Learning Organisation is one that:

- a. Responds to and anticipates changes in its environment by learning on a strategic level, it deliberately aims at improving its ability for learning.
- b. In order to learn at strategic level, makes use of the learning of employees, therefore employee learning is enhanced at all hierarchical levels.

"An organisation where its entire people, at all levels, continually seek knowledge, work and learn together for continuous improvement, and a shared desire for excellence".
Rossiter (1997, p67)

"An organisation with ingrained philosophy for anticipating, reacting and responding to change, complexity and uncertainty" (Malhotra 1996).

The author most associated with the concept of the Learning Organisation is Peter Senge who, in 1992, attempts to define what he sees as being a learning organisation:

"An organisation where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together" (Senge, 1992, p3).

It is, however, generally acknowledged that there is no clear definition of a Learning Organisation and more often writers offer opinions rather than definitions:

"I believe that the quality movement as we have known it up to now is in fact the first wave in building 'learning organisations' organisations that continually expand their ability to shape the future" (Senge, 1992, p69).

"It's about improving the total behaviour of organisations, about developing the capability of the system to do what its members actually want it to do" (Senge, 1994, p37).

"Learning is the passport to continuous improvement in quality, a strategic tool that no organisation can afford to overlook" (Joiner, 1990).

“Companies that are seeking to transform themselves into learning organisations must establish a series of solid foundations, built around the company's most valuable asset, its people.” (Tobin, 1993, p46).

Abemathy (1983, p107) suggested "What is needed is a view of production as an enterprise of unlimited potential in which current arrangements are but a starting point for continuous organisational learning".

It is this first recognition of the need to seek the creativity and knowledge of individuals within the organisation that led to the widespread growth of the learning organisation concept.

However, given the practical focus of the learning organisation, many writers have focused their work upon providing ideal characteristics of such an approach.

Daniels (1994) summarises much of this work in the following statement:

“A learning organisation values individual and organisational learning as a prime means of delivery of the organisational mission; A learning organisation involves all its members through continuous reflection in a process of continual review and improvement; A learning organisation structures work in such a way that work tasks are used as opportunities for continuous learning.” (Daniels, 1994)

Such characteristics have typically emerged in the form of models of the ideal learning organisation.

3.11.2 Learning Organisation Models

There are many different learning organisation models, ranging from Pedlar's (1991) Learning Company to the later work of Marquardt (1996) and Garvin (2000).

However, most widely adopted within the public sector are Peter Senge's (1994) Five Discipline Model, Peter Lassey's (1998) Characteristics of a Learning Organisation, and William Hitt's (1995) Learning Organisation Framework, all of which will be discussed in the following section.

Indeed, this study operationalises the models of Senge, Lassey and Hitt in ascertaining the extent to which conditions of learning have been created within the participating organisations.

3.11.3. Peter Senge and the Five Discipline Model

Senge first developed his learning organisation model in an article for the Sloan Management Review in 1990, however, greater discussion of the skills, tools and roles of those aspiring to create a learning organisation are outlined in his 1994 'five disciplines' model. The five disciplines on which Senge's (1994) learning organisation model is based are:

1. Systems Thinking
2. Personal Mastery
3. Mental Models
4. Shared Vision
5. Team Learning

3.11.3.1 *Systems Thinking*

Initially designed as a three-step learning process, Senge (1992) believes that 'systems thinking' is the cornerstone of a learning organisation. Presenting the argument that organisations traditionally blame outsiders for problems within the company, systems thinking considers:

"you and the cause of the problem are part of a single system. The cure lies in your relationship with your enemy." (Senge, 1992, p 121).

This suggests a learning organisation will have systems in place to ensure decision making is neither top-down or bottom-up, but participative at all levels.

Senge (1994) suggests everyone within the organisation should be involved with systems thinking, for not only is it a tool for analysing problems, but a method of communicating the findings to others. This supports the principles of WwW which calls for increased levels of openness, communication and collaboration.

Senge (1994) bases his systems thinking paradigm on feedback models and continual internal communication. He considers that the over-use of rules and blame discourages cooperation and innovation. Coupled with high levels of bureaucracy, employees choose not to look for improvements in the way they work and as such, the systems continue to fail. Learning, as a consequence, fails and employees disengage with the process.

3.11.3.2 *Personal Mastery*

“is the discipline of continually clarifying and deepening our personal vision, of focusing our energies, of developing patience and of seeing reality objectively.”
(Senge, 1994, p193)

Senge (1994) argues that business organisations will not succeed if employees do not enjoy success themselves. Personal mastery is the discipline of continually clarifying and deepening personal vision, of focusing energy, developing patience, seeing reality objectively, and having the self-generated incentive to take initiative.

“an organisation’s commitment to and capacity for learning can be no greater than that of its members.” (Senge, 1994, p193)

In their study of public sector agencies in the US, Fry and Griswold (2003) suggest those who act as learning organisations will motivate employees to reach for maximum individual and group productivity by encouraging them to use their own initiative and to innovate their working routine. As such, employees will be handed considerable freedom and the organisation will be void of unnecessary systems and processes.

Based on the results of a pilot Organisation undertaken within the context of the Greek public sector, Sotirakou and Zeppou (2004) consider Personal Mastery to be one of the more difficult aspects of Senge's model for public organisations to achieve due to the many bureaucracies that exist to satisfy performance measurement targets. They suggest the public sector has become routinized with standard forms and procedures. Rules and procedures provide for control and direction and within a culture of managerialism there is often a fear of empowering people, noting public sector managers are often fearful of once again losing their control.

Godfrey (1994, p495) sees the proliferation of rules and regulations within the public sector as a significant issue, suggesting that:

“designers and critics of government want perfect service and perfect adherence to the rules. But in a fast-changing world, this is not an option...empower the front-line staff to deliver, and orient them to customer service, and ordinary common sense will recognize that some of the rules will cease to be relevant”.

Reschenthaler and Thompson (1996 p11) consider a lack of resources often leads to a failure for public sector organisations to encourage personal mastery, noting;

“unlike industry, resources will not necessarily be found for innovation and incentives may not be given...without such incentive why should employees search for service improvement?”

Godfrey (1994, p495) further highlights additional reasons why public sector organisations often fail in promoting personal mastery: Firstly, employment and advancement does not come automatically to those who continually innovate their service; typically, reward and salary increments tend to be mechanical and promotion possibilities limited.

Secondly, overall performance regimes continue to stifle innovation and continuing blame cultures within public bodies ensure employees avoid risk taking. Thirdly, Godfrey (1994) concludes that the ever present atmosphere of potential investigation inhibits personal growth and experimentation.

In his study of learning organisation in a range of industrial and service sectors, Rossiter (2007) suggests that an organisation committed to a supportive environment can continually encourage personal vision, commitment to truth and a willingness to face honestly the gaps between the two. Personal mastery implies a willingness to invest what is necessary to create an environment that helps employees become high quality contributors. This supports the modernization goal of empowerment and incentivisation of front line workers.

3.11.3.3 *Mental Models*

Mental models are a means by which organisations and individuals create and share meaning, thereby enabling a common understanding and the development of knowledge (Hill & Levenhagen 1995; Hayes & Allison 1998).

Within organisations, mental models and the organisational metaphors that embody them, constitute integral elements of organisational cultures. The mental models are, typically, reflected in the language and metaphors used by individuals within organisations.

Senge (1994) proposes mental models are the images, assumptions, and stories that people carry in their minds of themselves, other people, institutions and every aspect of the world.

It is these mental models which are the most practical of the five disciplines and as such, the most likely to be used as a driver of change.

However, Rossiter (2007) suggests, whilst this discipline provides a vehicle for change, the change is unlikely to be quick and can best be achieved by management setting an example to all, planning changes over a long period of time, and by using training and management bulletins.

Furthermore, in their study of operationalising learning organisation principles in government departments, Reschenthaler and Thompson (1998, p13) consider key mental models which inhibit learning and collaboration are:

- A “them and us” culture whereby management are seen to dictate to staff and remain removed from front line operations
- An emphasis upon standardized systems and processes
- Promotion and reward is achieved through following procedures
- Physical barriers exist both departmentally and inter-departmentally
- Outside stakeholder groups are seen as a threat rather than as a partner

Godfrey (2000), Sullivan (2005) and Fry and Griswold (2003) each note that such mental models contribute to the defensiveness and fear of new ways of working held by employees and managers in the public sector. As such they consider organisations that remove such mental models and adopt the principles of team working, self-initiative and innovation, will be more responsive to the demands of modern public services.

3.11.3.4 Shared Vision

"Shared vision is not an idea but a force in people's hearts". Senge (1992, p206)

As such the purpose of a shared vision is primarily to ask the question, "what do we want to create?" and involves creating opportunities within the organisation to shape such a vision.

With a purpose of gathering commitment to an organisations' long term objectives, the shared vision begins with the process of capturing personal visions held by individuals across the organisation. Rossiter (2007, p59) suggests commitment to an organisation's shared vision can take time to mature and various levels of commitment can occur:

- *Make it happen.* The individual shares the vision and will create whatever structures are needed to enable it.
- *Enrolment Wants it.* The individual shares the vision and will do whatever can be done within the existing structure to enable it.
- *Genuine compliance.* The individual sees the benefits of the vision and will do everything expected and more.
- *Formal compliance.* The individual generally sees the benefits of the vision. Does what is expected and no more.
- *Grudging compliance.* The individual does not see benefits of the vision. Does enough of what is expected because he or she has to.
- *Non-compliance.* The individual does not see benefits of the vision and will not do what is expected.
- *Apathy.* The individual is neither for nor against the vision and has no interest or energy.

Senge (1992, p212) suggests visions spread because of a reinforcing process of increasing clarity, enthusiasm, communication and commitment. As people talk visions grow clearer.

Senge (1994) further notes an organisation that communicates to all staff its vision for the future is ultimately encouraging ideas, views, voluntary commitment and innovation. Writing in response to the modernization demands for joined up government. Sullivan (2005) further considers a public sector organisation that encourages open communication is facilitating a culture of openness both within and outside the organisation.

However, Fry and Griswold (2003) consider the process of achieving a unified vision in local government is complicated by the following:

- Many managers within the public sector have only recently reacquired their powers and may be reluctant to open up decision making to others within the organisation.
- Performance Measurement remains a major part of a public sector culture with a multiplicity of set targets and goals. This often results in limited scope for innovative methods of working.
- Encouraging ideas from the large number of stakeholders within the public sector can be highly time consuming and may encourage conflict.
- The problems of bureaucracy within the public sector can restrict the ability to 'reach' employees with the vision and encourage idea generation.

Senge (1994) concludes that if an organisation lacks a shared vision and purpose, then there will be problems in motivating people, in inducing a shared commitment and capacity to act effectively and efficiently, and to innovate. In broader terms, there will be a missing synergy necessary for fostering productivity growth, cost control, risk taking, experimentation, and innovation.

3.11.3.5 *Team Learning*

"Team learning is the process of aligning and developing the capacity of the team to create the results its members truly desire". Senge (1992, p. 236)

"Developing learning capabilities in the context of working groups and real business goals can lead to a powerful reinforcing growth process" (Senge, 1999, p9).

Senge (1994) particularly considers that the creation of a team or task culture can accelerate learning. He suggests, that teams can encourage innovative and co-ordinated action with a level of trust and understanding of everyone's skills and abilities. This supports the modernisation goals of task culture and improved functional alignment.

Rossiter (2007, p60) considers a number of specific skills must be developed in order to embrace team working. These skills are:

- Discussion where different views are presented and defended
- Dialogue where free and collective exploration of complex issues involves listening to others and suspending one's own views
- Dealing with powerful forces opposing dialogue and discussion, such as defensive routines
- Enquiry and reflective skills
- Practice

Sullivan (2005), reflecting upon recent performance evaluations in UK public sector organisations, suggests those that encourage team-working create a culture of open communication and idea generation. Such teamworking enhances the achievement of vision and purpose and develops internal skills in seeking new ideas and encouraging shared decision making.

However, Godfrey (1994) considers that competitiveness remains a key limitation to the achievement of teamworking in the public sector, suggesting

“Public Sector organisations have a long tradition of compartmentalisation and working in silos, as such managers may wish to protect their environment and vie for project leadership”.

Godfrey (1994) highlights that this attitude breeds distrust and lead to resistance and distrust of shared visions. This also leads to a tendency to shift blame and minimize risk taking.

Sullivan (2005) also considers that the existence of complex hierarchical structures further deters team building within the public sector and suggests whilst there is evidence to suggest structures are becoming more collaborative, much still needs to be done. Harrison (2002, p225) accentuates the need for leaders within the organisation to guide teams in the learning process by:

- a) Communicating the organisation’s business strategy and goals through a variety of formal and informal learning processes
- b) Identifying critical groups.
- c) Identifying barriers that are preventing people from applying their skills and knowledge in ways that could enhance organisations performance.

Reinforcing the need for team building and communication, Senge (1999) highlights a need to move away from the process of top down information and create "a learning culture that encourages mutuality, collaboration, curiosity and reflection across internal and external boundaries" (Senge, 1999 p424).

In providing a summary to the five discipline model, it is clear there are a number of organisational and personal attributes which must be adopted.

The model places particular influence on people factors such as involvement, teamwork and empowerment, mirroring the key elements of modernization and the innovation landscape.

Whilst much critique of Senge's work is based upon empirical research in private sector organisations, the key challenges to adopting such a model in the public sector appear to relate to the conflicting challenges of the efficiency agenda and subsequent proliferation of performance management techniques, alongside the ability to change an established culture based firmly on the principles of public administration and bureaucracy.

Furthermore, Senge's work is prone to misinterpretation. A literature search and reflection of his work in practice notes subtle differences in elucidation. This was a significant driver in the subsequent work of Peter Lassey and William Hitt, who noted the need for clearer terminology and distinction between the goals of Senge and the traditional organisation.

3.11.4 Hitt and the Learning Organisation

Hitt (1995) developed a model of the learning organisation in an attempt to provide organisations with a series of characteristics to aid a move from traditional management approaches.

This model, based on the McKinsey 7-S framework, considers structure, measurement system, management style, staff characteristics, distinctive staff skills, strategy/action plan, teams and shared values.

Table nine overleaf summarises this model:

Element	Traditional Organisation	Learning Organisation
Shared Values	Efficiency Effectiveness	Excellence Organisational reward
Management Style	Control	Facilitator Coach
Strategy/Action Plan	Top down approach Road map	Everyone is consulted Learning map
Structure	Hierarchy	Flat structure Dynamic networks
Staff Characteristics	People who know (experts) Knowledge is power	People who learn Mistakes are tolerated as part of learning
Distinctive Staff Skills	Adaptive learning	Generative learning
Measurement System	Financial measures	Both financial and non financial measures
Teams	Working groups Departmental boundaries	Cross function teams

Table 9 The Learning Organisation: Some Reflections on Organisational Renewal. Hitt, W.D. (1995). Leadership and Organisation Development Journal. Vol. 16, no 8, p18

3.11.5. Lassey and the Learning Organisation

Building on the work of Senge and Hitt, one of the most commonly adopted models of the Learning Organisation within the public sector is that of Lassey (1998).

As shown on Table ten overleaf, this model incorporates ideas discussed by Sharkie (2003), Nixon (1994), Pfeffer (1994), Chan and Shaffer et al (2004), Malhotra (1996), Daniels (1994), Stapley (1996) and Senge, highlighting the features and attitudes that underpin learning organizations.

Traditional Organisation	Learning Organisation
Punishes mistakes	Learns from mistakes
Operates traditional working practices	Adapts working practices
Sends employee on training courses	Trains employees
Plays safe	Takes risks
Managers monitor and supervise staff	Managers coach and develop staff
Discourages experimentation	Encourages experimentation
Command and control management	Devolution of power
Reviews instigated after disasters	Routine reviews of activities
Discourages staff suggestions	Encourages staff suggestions
Decision based on management hunches	Decisions based on empirical data
Work is within departmental boundaries	Work is across departmental boundaries
Discourages questioning from workforce	Encourages questioning from workforce

Table 10 Characteristics of a Learning Organisation Lassey, (1998)

Whilst Fry and Griswold (2003) suggest the model devised by Lassey is too simplistic it is recognised a key success factor is the requirement for increased staff autonomy, opportunities for idea sharing and creativity and cross-boundary working.

3.12 Learning Organisation Summary

Nayak, Garvin, Maira and Bragar (1995) suggest the learning organisation is an approach to 'engage employees' hearts and minds in a continuous, harmonious, productive change, designed to achieve results they genuinely care about, and that the organisations stakeholders want.

Millett (1998) further suggests that the process of building a learning organisation unleashes individual creativity and fosters collective learning, which is crucial for encouraging and developing innovation and rapid responsiveness to global competition.

Based on their studies in public sector organisations, Sullivan (2005), Vince and Broussine (2000) and Reschenthaler and Thompson (1998) suggest there are clear similarities between the goals of modernisation and the learning organisation, most notably anticipating, reacting and responding to change, complexity and uncertainty, of learning to learn, and involving all of its members.

Hitt (1995) and Lassey (1998) particular focus their work upon changing individual behavior at all levels and provide commonly used terminology to aid everyone in an organisation to adapt, transform and develop and be able to respond to new challenges and changes in the wider environment (Lassey 1998).

Much of the work by Peter Senge is focused upon changes to senior level management approaches and particularly the need for cultural and structural change, involving decentralization of leadership and decision making and subsequent encouragement of all organisational members to work towards common goals.

Senge notably desired a learning organisation to be the reverse of a traditional bureaucratic or autocratic organisation, otherwise termed by Tannenbaum and Schmidt (1973) as 'boss centered'.

In summarizing the benefits of the learning organisation approach, Keep (2000) highlights its emancipatory and inclusive approach, its focus upon achieving shared organisational goals, the encouragement of a social context and the emphasis upon breaking down barriers of hierarchy.

However, whilst much of the learning literature adopts an evangelical stance and assumes little difficulty in achieving an environment of shared goals and participation, many discuss the challenges of implementation.

Writers including Huysman (1999), Smith (1999) and March and Olsen (1976) discuss the dysfunctional nature of learning. In particular they cite the opportunity for scapegoating, inadequate regulation and enforcement, poor problem definition and complacency. Similarly Scarbrough et al (1999) indicate the barriers of creating an emancipatory culture.

Coffield (1999) and Keep (2000) suggest the emphasis upon collaboration and knowledge sharing often conflicts with the traditional role of knowledge and skills as a source of power and authority. This view supports the earlier contribution of Atwood and Beer (1990), who, writing in the context of the NHS, suggest that the power behaviors which have traditionally been seen as career enhancing can hinder adoption of the learning organisation.

In a review of learning organisation literature for the Chartered Institute of Personnel and Development, Keep and Rainbird (2000) further suggest that the increasing pressure on managers to minimize costs challenges the communitarian values espoused in the learning organisation literature, noting the costs involved in continual innovation and development.

One of the learning organisation's underlying assumptions is that advantage will emerge from continuous opportunities for innovation, encouraged by flat, non-hierarchical organisations where workers enjoy considerable degrees of empowerment.

However, Keep and Rainbird (2000) additionally cite the likelihood that many individuals, particularly in the public sector, join an organisation in order to fulfill a specific role. As such they expect a modernist form of job design with low trust and low involvement styles of people management. There is little expectation or often desire for greater responsibility in what has traditionally been viewed as a management role.

This notion is further discussed by Keep and Rainbird (2000) in relation to functional responsibilities. In process-driven functions whereby standardized systems are adopted, there may be little benefit to afford employees greater freedoms.

Citing examples such as call and document processing centre's, Smith and Taylor (2000) further support this view, suggesting the continual reinvention of systems that work can be unnecessary and damaging.

Wallace (1998), writing in relation to research undertaken within the NHS and local authorities, suggests that the learning organisation ideal is not a useful notion to apply in a public sector context due to issues of a bureaucratic culture, fixed structures, government regulation, a tradition of non-participative policy making and the expectations on employees to act rather than to learn.

These views are supported by the work of Franklin (1997) and Murphy and Blanter (1997) who further note the issues of highly localized and under-nurtured interpersonal relationships between employees in the public sector.

Writing in relation to his own experiences within the NHS, Edmonstone (1990) notes a key inhibitor to learning in the public sector is the tradition of highly prescribed job roles and emphasis upon accountability, which often associates itself with a culture of blame.

A further body of literature discusses whether the learning organisation approach is a realistic proposition. The Tavistock Institute report, Workplace Learning, Learning Culture, and Performance Management (1998) found "a significant gap between the language or discourse of companies who viewed themselves as learning organisations and regarded people as their most important asset, and the actual practices of these companies" (1998, p26).

In summary, learning organisations are trying to balance the qualities of traditional organisations with those that enable learning and therefore Coopey (1998) suggests that the learning organisation has, like any organisation, strengths and weaknesses. At its best, the learning organisation may grow to be a part of a larger societal change or social movement towards more empowering and participatory organisational structures.

However, a common thread when reviewing learning organisation literature is the need for appropriate conditions and cultural change when implementing such an approach. This is the focus of the next section of this study.

3.13 Creating the Conditions of a Learning Organisation

Throughout the various models and theories relating to the learning organisation much emphasis is placed upon the need for effective development of new organisational culture.

Storey and Quintas (2001) argue that organisational climate and culture play a key role in the creation of the learning organisation and that specific conditions must be fashioned to facilitate a conducive learning environment.

Moran and Ghoshal (1996) identify access to information as a key facilitator of learning, noting a need for management to share information that already exists within the organisation. This requires the identification of where information is held, removal of hierarchical information barriers and development of knowledge flows.

Based on a study of 60 private sector organisations, Tsai (2001) argues that less attention has been focused on this factor, a view supported by Alavi and Leider (2001) who, in their review of knowledge and learning literature, stress the importance of creating an environment which brings knowledgeable individuals together in a collaborative way so that knowledge can be shared.

Moran and Ghoshal (1996) further cite the importance of promoting the value of knowledge share and learning. Depending upon individuals' experience and values, the importance of exchanging and combining knowledge may not be seen as a worthwhile activity. Furthermore, opportunities must exist for the shared and created knowledge to be recognised. Individuals need to feel that the outcome will be of value.

Schein (1997, p392) notes that it is leaders who are the key enablers of a learning organisation suggesting that:

“if the leaders of today want to create organisational cultures that will themselves be more amenable to learning, they will have to set the example by becoming learners themselves and involving others in the learning process”.

Authors such as Richter (1998) and Elkjaer (1999) further support this view, noting the important role of senior executives in creating effective learning conditions and particularly their role in influencing learning behaviour. They suggest the role of leader as a facilitator of learning is an area lacking detailed empirical investigation.

Dixon (1994) considers the manager or leader can further aid the creation of a learning organisation by creating more effective information flow and disestablishing their traditional gatekeeper role.

Termed 'capability', Nahapiet and Ghoshal (1998) and Tsai (2001) additionally cite the importance of developing individuals' capacity to exchange and create knowledge. This suggests that whilst learning conditions may be available, individuals may not have the capacity to absorb and apply these for their own use. Increasing individual capacity and human capability through internal development was further cited as a key enabler of learning by Shiba et al (1993).

The importance of creating appropriate socio-cultural conditions have received research attention, most specifically focused on the interaction between individual group and organisation (Argyris & Schon, 1978; Morgan, 1986). Elkjaer (1999, p81) particularly discusses the need to "reconstruct and reorganize" to ensure opportunities for all members of an organisation to individually and collectively shape its direction. This suggests an environment must be created whereby a participation framework is created and individuals within an organisation are made aware of both the micro and macro environmental issues they face.

A number of writers also consider that more attention needs to be given to power dynamics and political activity that takes place within organisations as this can determine access to knowledge (Coopey, 1995; Huysman, 1999). Writing in the context of the UK civil service, such discussions in relation to socio-cultural and power dimensions are reiterated by Smith and Taylor (2000), who note the need to develop new forms of structure and encourage the use of cross-functional teams.

Their work specifically presents evidence to suggest that public sector organisations who aspire to achieve the Investors in People quality standard, often create the socio-cultural conditions required for learning organisations to flourish.

Writing in the context of organisations achieving strategic advantage, Prahalad and Hamel (1990) further highlight the need for organisations to develop a culture which captures the knowledge within it.

Whilst many of the proponents of the concept consider the development of 'new' knowledge to be the key outcome of the learning organisation approach, others suggest care must be taken to ensure the environment does not merely encourage dissemination of extant knowledge. (Easterby Smith et al., 2000, Nonaka and Takeuchi, 1995).

As such it highlights a need for cultural change in the areas of structure, systems, leadership and teams is required to ensure conditions appropriate for new knowledge creation are developed. (Du Plessis, du Plessis and Millett, 1999; Nahapiet & Ghoshal, 1998; Nonaka, 1996)

3.14 Learning Organisation and Cultural Change

Du Plessis, du Plessis and Millett (1999) suggest that whilst there is a considerable body of literature on the concept of the learning organisation, much of it is theoretical and little research has been undertaken about the practical implementation of these ideas in public or private sector organisations.

Senge (1990) considers that the lack of a detailed cultural change process will undoubtedly lead to failure. He suggests "most fail to produce the hoped-for results" (Senge, 1999, p5); that "initiatives grow for a while, then stop", and that "shared aspirations are a problem" (Senge, 1999, p6).

In providing suggestions for successful cultural change, Senge (1999, p10) suggests "significant change only occurs when it is driven from the top " and "little significant change can occur if it is only driven from the top" (Senge, 1999, p12)., thus confirming the view that for learning to take place all must be actively involved and hierarchical boundaries removed.

Building on the work of Senge (1994), Deming (1995) and Millett (1998), Du Plessis, du Plessis and Millett (1999) suggest that the implementation of learning organisation principles requires a process of cultural change. A summary of the literature suggests changes in the following areas:

3.14.1 Learning Structures and Systems

Millett (1998) notes an organisation's structure and systems are an integral part of fostering the development of a learning organisation, suggesting it is not possible to change one without affecting change in the other.

Burns and Stalker (1961) found that an organisational structure which is highly mechanistic, formal, and based on centralized decision making, will not allow for individual and organisational learning. In comparison, McGill and Slocum (1993), in their studies of public and private sector organisations in the US, consider that an organisational structure which is organic will more likely develop an effective open communication flow between management, employees, customers and competitors. Millett (1998) highlights such knowledge sharing horizontally and vertically, as a fundamental aspect of the learning organisation.

Based upon their applied research into learning organisation implementation in a private sector firm in Australia, Du Plessis, du Plessis and Millett (1999) provide one of the most comprehensive discussions of critical change considerations. In creating such conditions, they highlight that more than mere changes in hierarchy and reporting mechanisms are required, namely, changes in the organisation's information systems, human resource practices, remuneration and rewards procedure, and production systems.

Providing a clear summary, Gill (1998, p14), in a study of effective learning within DDI Asia Specific, suggested an organisational structure should create the following environmental conditions :

1. Open and honest communication across the organisation, without distorting information.
2. Show confidence in employees' abilities, treating them as skilled and competent.
3. Listening to and valuing what employees say, even though management may not agree.

4. Keeping promises and commitments
5. Co-operating with staff and looking for ways that each could help each other.

Millett (1998) further suggests that if an organisational structure is formal and highly bureaucratic, it will severely restrict individual autonomy and decision making. He promotes the need for flatter structures, in which the manager acts as coach rather than directs employees. This corroborates the work of Black and Synan (1996) who suggest all employees, including those in the middle and lower levels of the organisation, should not feel isolated but part of the structure.

3.14.2 Leadership and Teams

Du Plessis, du Plessis and Millett (1999) highlight the need for revisions to the role and style of leaders when moving from a traditional to learning organisation. They cite the need for planned individual development in which all leaders understand the principles of a learning organisation and the role they must play. Weekes (1980, p12) cited in Millett (1998, p109) specifically discusses the need for leaders to develop skills in relation to fact finding, diagnosis, creativity, decision making, and negotiating.

Millett (1998) identified two major differences between the traditional view of leadership and the leader in a learning organisation. Traditional leaders make decisions for the organisation via their own experiences, which they use to influence other members in order to achieve company goals (Senge 1996).

In comparison, within a learning organisation the leader must adopt the role of facilitator of learning, leading by example, and encouraging and motivating individuals to learn themselves. The leader also needs to be a team player, taking on a mentoring and coaching role rather than a planning and controlling role. Rather than viewing leadership as being the 'responsibility' of a single individual, Senge (1997) suggests that an organisation needs to build a community of leaders within the company.

The community of leaders comprises of:

- *local-line leaders/managers* with significant bottom- line responsibility, such as business unit managers, who introduce, and implement ideas;
- *executive top-level leaders/managers* who mentor the local-line leaders, and who influence cultural change by setting an example by changing their own behavior and that of the top- level teams; and
- *internal networkers* often these employees have no formal authority, however, they move through the organisation fostering commitment to new ideas and practices.

3.14.3 Team Learning

Finally, Du Plessis, du Plessis and Millett (1999) discuss the importance of creating a team learning culture when moving from a traditional to learning organisation. Similar to the task culture advocated in the modernization and innovation literature, they define successful team learning as “a purposeful approach, designed to create knowledge and a learning climate which, in turn, becomes effective action” (Du Plessis, du Plessis and Millett, 1999, p84)

Again, providing an unambiguous guide to this process, Bohlin and Brenner (1995) identify five practices that support the adoption of a team learning culture:

1. Generating shared awareness. Continually assimilating internal and external information about problems and opportunities;
2. Creating a common understanding. Converge on a common understanding of the key problems and opportunities and openly discuss options for action, using common tools;
3. Producing aligned action. Ensuring that plans and actions are aligned with the organisation’s goals;
4. Performing joint review. In a spirit of openness measure and review previous results and look for learning on how to do it better in the future;
5. Conducting collective reflection. Reflect on past and present activities and seek improvements in learning processes (Bohlin and Brenner 1995, p60).

However, following his review of learning organisation implementation in the Public Service Commission in Canada, Lawrence (1998) notes the particular challenges faced in government departments. He argues that popular toolkits or theoretical guidelines may be useful at a conceptual level, however fail to recognize the complexity and unique nature of public sector culture and as such, specific change programmes need to be developed in order to facilitate implementation.

3.15 Learning Organisation and Public Sector Culture

Despite significant growth in the learning organisation literature since the 1990's, relatively little attention has been given to public service organisations, but they exist in a specific context which is worthy of consideration (Kelman, 2005).

Limited literature exists relating to how context and purpose may influence the principles of a learning organisation within the public sector and Pettigrew (2005) particularly noted the need for organisation and management theory in this field to be contextualized to reflect the distinct nature of public services. Moore (2005) further suggests that there is a different relationship between ideas, practices and organisations in the public and private sectors, which learning organisation literature does not adequately consider, whilst Hartley (2006) notes different purpose, drivers, catalysts and actors in the public sector which in turn may impact upon the ability to create learning organisations.

Furthermore, Bate and Robert (2005, p655) note:

“the literature around implementing and evaluate knowledge management in the public sector is negligible”

Despite such differences, Hartley (2008) discusses the pressures placed upon public service organisations for learning and innovation, particularly driven through the creation of conditions for learning within and between organisations.

In a review of 435 abstracts and 131 research papers, Lyndsay Rashman, Erin Withers and Jean Hartley (2009) note key factors which may stifle the creation of a learning environment in the public sector as context, participation, power, organisational politics, conflict and collaboration. Whilst their study notes a need for more specific studies to explore these factors further, a summary of these considerations is made as follows:

3.15.1 Context

A number of writers note the organisational or intra-organisational context as a stimulant or inhibitor of learning (Bate and Robert, 2002; Jensen, 2005; Newell et al, 2003). Specifically, they note a distinction between routine and strategic services, highlighting barriers created as a result of centrally-imposed, rigid, systems and procedures controlling the way routine operations can operate.

Supporting this view, Vince and Broussine (2000) in their study of learning within local government, note that knowledge sharing and learning occur more frequently in professional groups or those with a focus upon developing strategy or policy. Furthermore, the environment and external context in which a public sector organisation operates may have a significant influence upon its ability to encourage learning (Fiol and Lyles, 1985; Lam, 2000 and Miller; 1996). Specifically, organisational purpose and mission, the extent to which the service is determined by regulatory control, and the degree of performance measures are cited as potential barriers to learning.

Finally, Grant (1996) noted that whilst private sector organisations relate continual learning as an aid to competitive advantage, there is little equivalent motivation within the public sector and as such the operating context often does not encourage continual experimentation and change.

3.15.2 Networks and Interaction

The degree to which reciprocity and intra-organisation interaction is required is cited as a further condition which may support or inhibit learning within public services (Chen, 2004; Knight, 2002; Mann et al, 2004; Reagans and McEvily, 2003). It is considered such need for collaboration encourages regular communication, interpersonal connections and opportunity to create shared perspectives (Reagans and McEvily, 2003). Rashman et al (2009) suggest many public service functions operate discretely with imposed hierarchy and structure which prevents such collaboration.

3.15.3 Power, Politics and Leadership

Dekker and Hansen (2004) argue that learning can be either facilitated or inhibited by organisational political processes. Their study of learning in US public authorities noted that those organisations which encouraged the review of problems, minimized ambiguity, avoided blame, and sought member consensus before making decisions were better placed to encourage learning. Organisations that maintained bureaucratic structures evidenced through numerous formal rules, operating procedures and restricted information systems, demonstrated less evidence of learning.

Studies by Geiger et al (2005) further reveal a reluctance of managers within public organisations to share knowledge, often fearful of loss of power or status. They note such withholding or manipulation of information leads to suppression of learning.

Lawrence et al (2005) and Storck and Hill (2000) also note the important role of leaders in bringing people together, creating an environment conducive to learning and acting as learning champions.

3.15.4 Organisational Culture, Structure and Systems

In a public sector context, Perri 6 et al (2002), suggest learning and innovation within the UK public service will always be at risk if the organisational culture is not carefully nurtured. They note that culture can be a blockage to learning. Building on the work of Douglas (1998) they suggest that the more hierarchical the institution, the less likelihood a culture of empowerment and autonomy will exist,

In their study of six public sector organisations in Australia, Bradley and Parker (2002) suggest public agencies have typically adopted an internally focused culture. Such a culture focuses upon information management and communication as a means of ensuring stability and control. Denison and Spreitzer (1991) referred to this model as a hierarchical culture because it involves the enforcement of rules, conformity, and attention to technical matters.

As discussed earlier in this review, the internal process model most clearly reflects the traditional theoretical model of bureaucracy and public administration that relies on formal rules and procedures as control mechanisms. (Weber, 1948; Zammuto, Gifford, & Goodman, 1999).

Wolfe (2005), Cochrane (2004), Oppen (2003), Vince and Broussine (2000) and Boyes Watson (2005) all suggest that such internally-focused cultures are a reason why the UK's public sector has not embraced the concept of the learning organisation. Key reasons cited are its embedded managerial policies and procedures formed following years of government control and scrutiny.

Whilst Weick (1996) considered that an organisational culture that encouraged trust, cross-boundary networking and risk-taking would encourage the principles of the learning organisation, public sector studies by Reagans and McEvily (2003) and Rashman and Hartley (2002) evidence issues of trust, with a particular reluctance of managers to offer greater freedoms to subordinates.

In their studies of the UK public sector, Vince and Broussine (2000) and Vince and Saleem (2004) further suggest that the existence of a blame culture negatively impacts upon the learning process, whilst Brodtrick (1998) argues that the regulatory nature of the public sector's service delivery constrains it by having to provide certain services and products and therefore leaves it with less flexibility than the private sector to innovate.

Additionally, Pak and Snell (2003) and Hartley and Allison (2002) highlight the existence of strong subcultures within public sector organisations, each with their own norms, values and technical language which can additionally impede learning between teams.

Further public sector studies by Vince (2000) and Newell et al (2003) note organisational design, structure and systems can support or inhibit knowledge creation and participation arguing that those with decentralised, and informal hierarchies are better placed to encourage knowledge creation and transfer.

A study of learning within health services by Nicolini et al (2007) identified particular learning barriers when an organisation contains professional and administrative functions. In such a scenario, particular emphasis must be placed on bringing such disciplines together in order to enhance relationships and remove established professional and social boundaries.

Newell et al (2003) found further internal barriers created as result of established role cultures. Their work noted the prominence of routine activities and prescribed individual activities undertaken by many public sector workers. Such established and embedded practices led to positive reinforcement and a reluctance to change and learn.

Vince and Sallem (2004), in their study of 146 local authorities in England and Wales, cited similar reasons as an inhibitor of knowledge sharing and risk taking.

3.15.5 Learning and the Need for Public Sector Cultural Change

Bennington (2000), undertaking a review of the UK modernisation agenda, argues that New Labour's commitment to learning and improvement is a distinct cultural shift from previous administrations and as such, requires a carefully planned cultural change programme.

Again, Rashman et al (2009) emphasise the need for cultural change when referring to the development of a learning organisation.

Miller (1984) suggests an eight-stage process towards achieving cultural change in the public sector:

1. Purpose – promoting the cause
2. Consensus Decisions - all should be involved in the decision-making process rather than a top down communications structure
3. Excellence Management – managers should create an environment of intellectual inquiry in which the pursuit of knowledge becomes the norm.
4. Unity Ownership – staff across the organisation should be empowered and encouraged to see their efforts with pride.
5. Performance – good performance should be recognised.
6. Empiricism - employees at all levels will perform measurably better if they know how they are performing, therefore, feedback mechanisms must be in place.
7. Intimacy – all should have the ability to share ideas, feelings and needs in an open, trusting manner without fear of punishment.
8. Integrity – decisions should be based on what is ethical not legal. Managers should be role models of integrity that inspire their subordinates to believe the purpose of the organisation is right, just and worth sacrificing for.

Juran (1993) further states that culture can be changed if managers provide clear evidence of the benefits of change, whilst additionally offering opportunities for self development, participation in the change process and recognition or reward for idea and innovation.

In conclusion, a review of learning organisations within a public sector context, notes that whilst there is a lack of empirical study in this area, evidence suggests that, in contrast to the private sector, the public sector is constrained by a range of central government factors such as performance regimes and statute. The public sector itself is also very diverse and organisations rooted in repetitive practice, such as benefits handling may struggle to embed learning practice. Changes must also be made to structure, power mechanisms, opportunities for networking and traditional operating practices. Such changes must therefore be supported by a process of cultural change. Supporting the WwW agenda, when considering culture as a driver of management practice, Gutman and Glazer (2009) highlight workplace design as a key enabler. Based on over 30 years of research within public and private sector organisations, they identify nine aesthetic features that can shape organisational culture and subsequently affect individual behaviour.

These factors are location and spatial structure of facilities, circulation and communication, physiological and psychological functions of humans, visual properties, amenities, social values, attitudes, status and cultural norms expressed by the environment (symbolic properties), and aesthetic properties.

They draw on the work of Davis (1984), Holm-Löfgren (1980) Schein (1985) and Nissley (2002) in shaping their work.

Davis (1984), in his study of the physical influence of environment in offices, ascertained that three dimensions contribute to employees' interpretations of the organisations culture. These are the physical structure (including building design and physical location, furniture and seating arrangements); physical stimuli (including removing and introducing physical stimuli to shape the culture such as the paperless office); and symbolic artifacts (including wall colour, signage and wayfinding, personalisation, presence or absence of carpets etc).

Holm-Löfgren (1980) highlights buildings, settings, equipment, products and other physical artifacts as being important in shaping corporate culture.

Similarly, Schein (1985) suggests that the best way to understand an organisation's culture is to have a look at its workplace environment, and Nissley et al. (2002) views aesthetics, such as workplace design, as a means of gaining understanding of an organisation's culture.

This research considered the extent to which organisational norms act as either an expression of organisational memory or seek to create organisational memories for people within the organisation. These organisational memories could relate to the management style, value placed upon employees or power base.

3.16 The Emergence of Organisational Aesthetics as a Driver of Learning Organisation

McCauley et al (2007, p453) defines aesthetics as:

“the knowledge we gain from our sensory experiences.”

In other words, how we perceive and experience stimuli and their subsequent effect upon on the way we undertake routine or non routine operations.

To frame the term 'aesthetics' in relation to this study, Gagliardi (1992) discussed the term with regards to the way organisations used physical artifacts within their premises, for example, furnishings, office equipment and public relations materials. He argued that much effort should be made to making these elements of an organisation attractive.

Ramirez (2005) and Gagliardi (1992) suggest that understanding aesthetics can help improve insight into organisations. Organisations provide artifacts for people's sensual perception.

These are the fundamental, but often unnoticed elements of organisational culture and such objects could exemplify cooperation, both within the organisation and with external stakeholders.

In support, McCauley et al (2007), in their recent summary of the field, consider organisational aesthetics provide a new research approach to develop understandings of organisational processes and people's sense making about organisations.

Writers including Italian sociologist of organisations Antonio Strati (1999), and Professor of Public Administration George Frederickson (2000), consider that the bureaucratic organisation can provide members with visible signs of precision, harmony, routine and ritual. Such an argument places emphasis upon bureaucracy ensuring predictability and a sense of fairness amongst all levels of members.

Highly visible rules protect members from uncertainty and remove the development of informal rules or coercive powers forming, whilst also enabling members of the organisation to be clear about patterns of accountability, and who is responsible for the tasks to be performed (Jaques, 1990; Bozeman and Rainey, 1998).

According to McCauley et al (2007) suggest the emphasis upon rational and legitimate authority led to the emergence and promotion of status symbols and identifiers of hierarchy and authority in the physical environment of the workplace, such as cellular offices and floor location.

Furthermore, Dickinson et al. (2000) in their study of UK firms, suggest that companies who use aesthetic 'corporate expression' such as visual design and the ergonomics well, are more likely to create a culture that gains competitive advantage through motivating the workforce and positively influencing the public and stakeholders.

Whilst studies of workplace design and aesthetics are relatively limited in relation to wider organisational literature, studies to date suggest an organisation's physical environment can provide benefit in a number of different ways. Authors such as Oborn (1987), Russell and Ward (1982), Peters and Waterman (1982), McClelland (1975), Lee (1999) and Myerson and Ross (2003) discuss the benefits to individuals within the organisation and present their conclusions from a micro level. Dovey (1999), Hillier and Hanson (1984) and Canter (1974) focus on the macro benefits and discuss how physical environment can improve organisation effectiveness. Groat and Canter (1979, p84) further note:

“an essential aspect of people's interaction with buildings is the meanings they associate with those buildings; therefore, good design should encompass a conscious manipulation of intended meanings.”

Berg and Kreiner (1992) specifically recognize corporate architecture as having a profound impact on human behavior, most notably in terms of interaction patterns, communication styles and service mindedness. They continue to discuss the subsequent impact of such interaction on productivity, efficiency and creativity.

Focusing upon the efficiency and effectiveness agenda within the public sector, Duffy (1995) suggests that when organisations are least effective and efficient, the focus on 'control' factors and symbols such as grade and status are prominent in the physical environment of the workplace, and conversely when the focus is on organisation or individual performance, the emphasis on status symbols and control is minimised.

Leibson (1981), Seiler (1984) and Olivegren (1987) discuss the ability of organisations architecture to reflect the 'corporate soul'. Each, highlights the use of social space within organisations to demonstrate a culture of community and 'we spirit'.

Building on the work of Steel (1973), whose research in the German Insurance Company Allgemeine Rechtsschutz suggested that the workplace design can encourage ambition and provide a visual image of organisation structure, Carlzon (1987), in his study of SAS headquarters in Sweden, further highlights the ability of corporate architecture to reflect the adopted management philosophy. In his work translated as “Demolish the Pyramids,” he suggests “the fewer pinnacles and towers, the easier to do away with hierarchy”.

Giddens (1984, p152) discusses the relationship between the physical space within organisations and the level of bureaucratic control, highlighting the extent to which the use of single offices and insulation acts as a palpable marker of hierarchical power and control. These conclusions support Foucault’s (1979) identification of a strong relationship between division of space and control.

Pfeffer (1982) supports this view, suggesting that authority is often inferred from symbols such as office size, location and décor that powerful members of an organisation acquire. Duffy (1997) argues that in a culture designed to empower and innovate, such symbols have no place or meaning.

Carnevale (1992) further discuss elements of the physical environment that can be controlled such as layout, furniture, colour in order to enhance or change employees’ actions.

However, as summarized by Bennett (1977), Osborne (1987) and Sanders and McConnico (1987), much of the employee-led empirical research in physical environment has focused on physiological responses to the effect of ambient conditions such as temperature, air conditioning, lighting, and less on the relationship between the physical environment and use of space to encourage interaction which is the focus of this study.

3.17 Workplace Design and Interaction

The modernisation and innovation agendas place significant emphasis upon the need for greater collaboration and interaction between public sector workers. It is envisaged that this will create the conditions of empowerment, participation and cross-boundary working synonymous with the learning organisation. In attempting to create such conditions, the WwW initiative cites workplace design as an enabler of openness, communication and collaboration.

In his study of US public and private sector organisations, Becker (1981) provides evidence that some design configurations can stimulate organisational creativity through social interaction between organisational members. Becker (1981) summarised:

"The chain of events from a social-relation perspective then leads from office environment to interaction level to attraction/liking to performance" (Becker, 1981, p105).

Subsequent research relating to workplace design and interaction (Scuri, 1985; Becker and Steele, 1995; Duffy, 1997) typically supports the conclusions of Becker, noting the benefits of closer proximity between managers and subordinates, and removal of barriers to enhance face-to-face communication. However, research also highlights the issues such proximity and open communication brings.

A study of corporate offices by Szilagyi and Holland (1980) provided evidence of enhanced formal and informal contact between managers and subordinates when open plan working was introduced. This was further supported in the research relating to workplace communication undertaken by Keller & Holland (1983). Their work discussed evidence of improved information access and sharing between managers and subordinates and subsequent workplace improvement.

However, a study of the impact of landscaped offices on workplace improvement by Hundert and Greenfield (1969) determined that whilst such designs were hypothesised to improve comfort, flow of information, and interaction, findings indicated that despite increased information flow, issues of storage, privacy distraction and interruption became more frequent.

These findings were further supported in Brookes and Kaplan's (1972) study of 120 employees who had recently relocated from a closed plan to open plan working environment. This study noted a perceived reduction in efficiency due to over communication, noise, loss of privacy, lack of storage and visual distraction.

Dean (1977), in a study of the AIA headquarters, further ascertained that two thirds of staff reported a preference to working in closed-plan offices.

In this study, managers particularly cited their desire to return to individual cellular space, indicating issues of interruption and need for confidentiality. Employees showed similar reluctance to working in such close proximity to managers, highlighting issues of increased observation, distraction and removal of job boundaries.

Finally, studies by Clearwater (1980) and Sundstrom (1986) provide comprehensive summaries of the issues of proximity and interaction within open plan workplace designs. Both note an increase in disturbance and distraction and particular dissatisfaction from managers who require a greater degree of privacy. They further identify that whilst social interaction can benefit some, staff more often preferred private space where they could focus on specific tasks without potential for distraction.

Sundstrom (1986) summarised his various studies in this area, noting:

“Of the studies that reported ratings of communication in general, two reported no change, and two reported an improvement. One other found the open office more "sociable". Another found more face-to-face conversation and more time communicating, but fewer phone calls and meetings in the open office. As for ratings of specific aspects of communication, contact among departments improved in one study, but friendship and feedback declined in another. Privacy for confidential conversation declined in three studies” (Sundstrom, 1986, p56).

3.18 Informal Communication and Social Space

Whilst much has been written on the impact of social or communal space as an aid to informal communication and learning (Steele, 1973; Becker, 1995, Becker and Steele, 1995), evidence to support these claims is limited.

A study by Campbell (1988) of use of communal space in a US university concluded that communal space cannot simply be provided, further management actions need to be taken in order to encourage its use.

In an earlier study, Weisman (1981) further noted the need for increased wayfinding and visual triggers to highlight the provision of communal space.

Wicker (1979, p75) suggests a five point plan for creating effective gathering places:

1. Choose central locations that are easily reached by all occupants of the building.
2. Locate necessary and well-attended functions near the intended focal point so that it is at cross-roads of traffic. Proximity to mailboxes, coffee pots, restrooms and supply rooms could be helpful.
3. The intended focal point should be a voluntary setting where people are free to come and go. It should not have an important official function that requires commitment from the occupants.

4. Minimize visual barriers. Keep the setting open on three sides. Make it easy for people passing by to see who is there.
5. Provide comfortable seating that will allow people to converse in groups of variable size and will allow them to observe the traffic flow.

To encourage interaction and move away from the rationalist paradigm, much research has been undertaken into different forms of workplace layout. Whilst much of this research is practitioner-led and relates to particular layout configurations, a growing literature is emerging linking management theory and the impact of workplace design. A summary of this research will be presented in the following section.

3.19 Evolution of Workplace Design

Hillier and Grajewski, (1990) categorises office layouts into five common configurations. Most aligned to modernist management models is the *traditional closed plan* or cellular layout, consisting individual or small enclosed rooms for staff.

Furniture within these rooms is typically associated with grade or status with greater degrees of storage and movement space for those higher up the hierarchy. Closed plan layout offices are linked by corridors with limited visibility or opportunity for interaction.

The second design is the *traditional open plan office*. This consists of larger rooms housing a number of associated staff. The configuration of staff is typically aligned to functional specialism and layout is typically uniformly structured. Hierarchy is often represented with those in authority located together.

The Burolandschaft, or landscaped office, is the third design configuration. Developed in the early 1950's by the German Quickbomer team, this is a fully open plan design with unpartitioned floor space comprising light furniture and minimum storage. Movement and interaction is encouraged within this design through the irregular location of workstations. As such, there is no arrangement of seating on the grounds of hierarchy.

Similarly, the *Action Office* is often associated as a modification to *Burolandschaft* as it is characterised by hierarchy-free individual workstations with limited storage space. However, this design differs through the inclusion of free-stand partitions to allow for greater privacy and concentration space.

Finally, the *Contemporary* layout type is a combination of traditional and open plan configurations. Physical layout is determined by the nature of tasks to be undertaken in different settings. There are multi workspaces and a mixture of group space, concentration space, and central areas providing common facilities to encourage interaction and team working.

Research carried out by Gartner/MIT in 2004 suggests that organisations will have to create a new balance between collective and individual spaces, and acknowledge the increasing importance of the office as a space for social and interactive engagement.

Price (2004) notes such flexible “innovative” workplace designs are not new, however, developments in neo-modernist management practice (Aldrich, 1999, Waldrop, 1992; Price and Shaw, 1998; Maquire and McKelvey 1999; Pascale et al. 2000) are increasingly placing emphasis upon the conditions in which employees operate and their subsequent impact upon performance.

Martin and Black (2006) argue that such is the effectiveness of people critical to the success of the organisation, that one would expect there to be a lot of attention given to creating highly effective conditions to support people and their performance.

This view is supported by practitioner-focused authors such as Peters and Waterman (1982), Kanter (1989) and Handy (1989) who suggest organisations must create conditions for continual idea generation and creativity. Peters and Waterman (1982) particularly cite the role of the physical environment in contributing to the creation of knowledge.

In their book, *In Search of Excellence*, Peters and Waterman (1982, p220) note that 'excellent' companies emerge from locations where their workplaces contribute to organisation effectiveness through increasing the individual's opportunity to be more innovative.

"Physical trappings help spur the intense, informal communication that underpins regular innovation" (Peters and Waterman, 1982, p. 220).

Kanter (1989) supports the work of Peters and Waterman (1982), suggesting a need for "revolution" in organisational practice development of a post-entrepreneurial culture organisation. Notably, Kanter cites the need for organisations to design the workplace as "a centre for social life" (Kanter, 1989, p285).

Williams (1981, p. 69) terms such a move towards such empowerment as 'liberation theory' suggesting such a culture allows;

"Human beings to be made whole again, working and living in the same community" (Williams, 1981, p. 69)

McClelland (1975), Murphy (1996) and Lee (1999) also consider that such an empowering culture can increase performance, productivity and employee motivation.

In criticism of such an empowering environment, authors such as Huws (1996) and Thompson and Warhurst (1998) argue that flexible workstyles create a disadvantage for, and exploitation, of the individual, suggesting greater responsibility is passed to employees for idea generation and decision making, without associated legitimate power or recognition. Hynd (2003) further refers to the differing expectations between the knowledge-rich, high-earning employees who are perceived as adding value, and the less skilled employees who undertake the routine work.

Andrew Mawson from workplace consultants, Advanced Workplace Associates (2002), considers knowledge work is very different from traditional management practice – with greater demand for employee autonomy, data collection, data analysis, team presentations, team working, influencing and communication.

Bradley and Parker (2002) suggest that public sector organisations have typically adopted an internal focus culture. Such a culture focuses upon information management and communication as a means of ensuring stability and control. Denison and Spreitzer (1991) referred to this model as a 'hierarchical culture' because it involves the enforcement of rules, conformity, and attention to technical matters. The internal process model most clearly reflects the traditional theoretical model of bureaucracy and public administration, which relies on formal rules and procedures as control mechanism (Weber, 1948; Zammuto, Gifford, & Goodman, 1999).

Wolfe (2005), Cochrane (2004), Oppen (2003), Vince and Broussine (2000) and Boyes Watson (2005) further suggest such internally-focused cultures are a reason why the UK's public sector has not embraced the concept of the learning organisation. Key reasons cited are its embedded managerial policies and procedures formed following years of government control and scrutiny.

Carnevale (1995, p. 7) concludes

"Because physical conditions of work are so consequential, designing and constructing workplaces must be connected with operational management. Work environments have social as well as technical purposes and are an important aspect of organisational culture. People are becoming more aware of their work surroundings and are increasingly concerned about the impact physical settings have on their health, safety and work performance".

This debate, and its implications for organisational aesthetics, can be mapped onto a continuum of management practice. On one end of the continuum is the traditional “mechanical” perspective such as classical, scientific and bureaucratic models. In such models, management is a rational process of setting desired parameters, planning how an organisation will perform, and ensuring compliance.

Alternative models such as the learning organisation, see organisations as “living” systems, not just metaphorically but literally. In such an organisation, management is the act of creating contexts from which new knowledge and new results emerge.

Price and Akhlaghi (1999) suggest such organisations often benefit from adopting open and adaptive forms of office layout.

Whilst the majority of the literature on workplace design relates to open plan versus traditional cellular designs, living systems go beyond this and consider specifically forms of workplace which encourage interaction that is not part of the routine of work. It is these scenarios that are considered to encourage empowerment, learning and connectivity.

The living system concept is most notably considered in Becker and Steele’s (1995) ‘Total Workplace’ concept. This work highlights the importance of creating physical settings conducive to social interaction.

It particularly notes the importance of workplace lighting and visuals such as bold colours, artwork and sculpture to encourage creativity and a sense of vibrancy, collaborative shared and mixed workspaces; the removal of physical barriers and introduction of flat and flexible organisation structures. Subsequent research by Scuri, (1995); Duffy, (1997); Laing et al, (1998); and Becker and Sims, (2001) further support these conclusions.

In their study of public and private sector operations worldwide, Palmer and Richards (1999) suggest organisations that adopt the living system approach should be perceived as ecosystems rather than machines. Such ecosystems encourage knowledge to be developed and exchanged through conversations, formal and informal.

Vos and van der Voortd (2002) argue that in such an ecosystem, management leaves the 'how' and 'where' more and more to the staff members themselves. In this culture autonomy, trust and responsibility are critical, and increasingly such a culture is demanded by today's workforce who seeks an interesting, exciting and creative existence.

A conclusion from Palmer and Richards' study (1999) further suggests space that encourages such conversations and autonomy may speed up learning. This view is further supported by Ward (2000) and Martin and Black (2006).

However, Hartley and Alison (2002) suggest that despite the reputed role of connectivity networks as a source of learning, there has been relatively little empirical research that examines the extent and the processes of learning in inter-organisational networks in the public sector.

It can be concluded that the total workplace concept provides a composition of spatial design features, which can create conditions not based on traditions of bureaucratic or scientific management (Taylor, 1911, Weber, 1945), hierarchy and status (Fayol, 1949), encouraging an environment based on socialization, teamwork, knowledge sharing and informal contact to improve creativity and innovation (Peters and Waterman, 1982; Handy, 1989; Senge, 1990).

In response to such research a number of design models have emerged to encourage such features, as discussed in the following section.

3.20 Models of Workplace Design

Writers from a planning and architecture discipline, such as Ward and Holtham (2000), Laing et al (1998), Duffy (1997, 1998) and Myerson and Ross (2003, 2006), discuss in detail the correlation between the physical environment and social aspects of an organisation, and particularly the ability of workplace design to encourage learning and innovation.

Ward and Holtham (2000) initially discussed the need for organisations to create opportunities for knowledge generation through workspace design. Termed 'Single Minded' and 'Open Minded' organisations, they presented a matrix of design options:

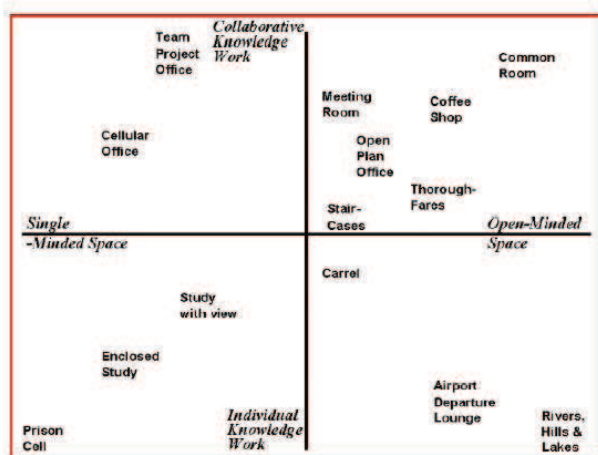


Figure 3 Types of Workplace, Ward and Holtham (2000)

Ward and Holtham (2000) suggest that 'single minded' space reflects more closely the bureaucratic models of management, whilst 'open minded' spaces portray a more multifunctional, and participative culture, resembling knowledge working and learning organisations. This is not to suggest knowledge cannot be generated in single minded space.

It is, however, the highly influential work of Duffy and his team at architectural consultants, DEGW, who have developed significant models to illustrate new styles of workplace that can encourage interaction and innovation.

Whilst acknowledging the commercial basis in which Duffy and his team have developed their workplace designs and accompanying commentary, numerous academic and practitioner writers recognize his 1997 Work Patterns and Space matrix as a seminal workplace model.

The model uses two axes of autonomy and interactivity to introduce four broad types of office space – Hive, Club, Cell and Den.

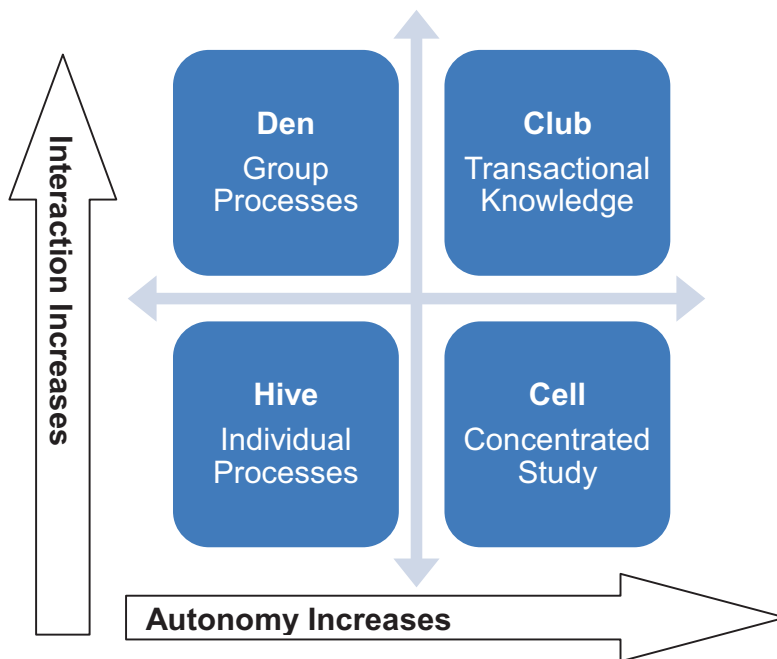


Figure 5 Workplace Patterns and Space Matrix, Duffy, F. (1997)

Duffy's (1997) model is based upon two organisational variables: interaction and autonomy. He suggests interaction relates to the degree of personal, face-to-face contact that is necessary to carry out office tasks.

- The 'cell' is characterized by cellular offices typically seen in hierarchical organisations and professions such as doctors, solicitors and academics.
- The 'hive' adopts the Taylorian concept of individual workers involved in individual, routine processing with little interaction with others.

- The 'den' is characterized through open-plan designs with numerous areas for interactive team working, functionally and cross functionally.
- The 'club' represents the move towards more complex forms of working such as the ecosystem where employees have ultimate flexibility in where and how they work. This is often characterized by unrestricted non territorial and teleworking practices.

Ward and Holtham (2000), suggest organisations encouraging learning and knowledge sharing must encourage the opportunity for interaction, adopting models such as Club and Den. Duffy (1998) suggests forms of interaction can vary as the complexity, urgency, and importance of the tasks being carried out increases. As such he offers a range of sources of interaction, both formal, such as meeting rooms and video conference, and informal such as cafes, hub areas and hot desks.

Duffy further uses the term 'autonomy' to define the degree of control, responsibility, and discretion each office worker has over the content, method, location, and tools of the work process. The more autonomy office workers enjoy, the more they are likely to want to control their own working environments, singly and collectively, and the more discretion they are likely to want to exercise over the kind and quality of their surroundings in their places of work.

Interaction and autonomy are strongly correlated within many aspects of office design because they affect workers' expectations about the layout, the work settings (the heights of the space-dividing elements, for example) and their control over environmental services and lighting.

Developing Duffy's Den and Club design further, Jeremy Myerson, a Director of the Helen Hamlyn Centre at the Royal College of Art in London, and Philip Ross, Workplace Technology Consultant, developed their own model of the 21st Century Office in 2003.

The Myerson and Ross (2003) 21st Century Office model is made up of four workplace types, each of which are designed to expand opportunities for interaction and autonomy. Similar to Duffy's Work Patterns and Space Model, such designs are not expected to be adopted in isolation and indeed a combination of approaches can be undertaken.

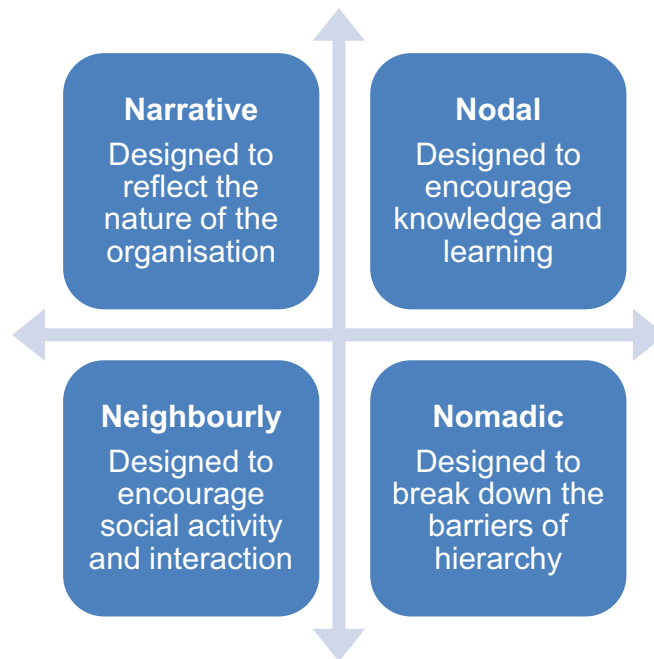


Figure 6 The 21st Century Office, Myerson J and Ross P (2003)

The Narrative workplace design encourages organisations to demonstrate its brand, values and identity through its aesthetic. Writers such as Gagliardi (1990) and Hatch and Schultz (2002) believe such physical representation builds corporate memory and provides employees with visual stimuli in their environment.

The Nodal workplace environment represents the workplace as a knowledge connector. Citing the work of Weber and Taylor, Myerson and Ross (2003, p85) describe traditional offices as fixed architectural containers for work, populated by sedentary workers who rarely shared ideas. They cite the Nodal design as one which encourages ideas and innovation through knowledge sharing opportunities. Examples of such environments include resource centres, social hubs, break out space and space for mentoring and coaching.

Ward and Holtham (2000) suggest knowledge workers use a number of different modes of working to achieve their goals. Using the 'monastery metaphor' as a method of illustrating such a design, Holtham and Tiwari (1998) reflect on the medieval monastery as one that had diverse spaces to fulfill diverse knowledge needs, for example areas geared to team briefing meetings (chapter house), individual quiet work (cloisters, carrels), serendipitous meetings (cloister walkways) and private reflection (cells).

Building upon the work of Steele (1988), Becker and Steele (1995), Hurst (1995) and Hargadon and Sutton (2000), the Neighbourly model describes a workplace that provides opportunities for connectivity. Here individual workspaces surround or share informal common space in which frequent informal interaction occurs. Work is a system of fluid conversations and workers move to whatever environment is needed for a particular conversation, or simply find themselves exchanging information by chance. Such designs are characterized by a social landscape made up of cafes, bars, fitness centres, gardens or meeting spaces, which encourage interaction. In earlier work, Steele (1988) termed this design as 'caves and commons'.

Finally, the Nomadic workplace design is based on the principle that fixed workspace may not provide the most productive working conditions. Nomadic workspace allows workers to locate themselves where is most productive for the task in hand. Such designs are characterized by facilities such as hot desks, airport style lounges, portable communication devices and intelligent furniture.

In their review of literature relating to relating to such non-territorial forms of workplace design, Elsbach and Bechky (2007 p80) note potential benefits to the organisation as being: the encouragement of spontaneous and informal information sharing, improved mentoring, increased management interest in the development of subordinates, enhanced opportunities for relationship building, improved opportunities for creativity and better networking.

However, in critique of such an approach, van der Voordt (2004, p240) in his study of post occupancy evaluation of new NTW offices, notes issues relating to loss of productivity due to distractions, lack of concentration space, excessive noise, reduction in productivity caused through repeated log in and set up/clearing activity, reduced work satisfaction because of loss of status, privacy, territory and identity, and employee resistance.

3.21 Discussion of Workplace Design and Interaction

Whilst writers such as Duffy and Myerson and Ross provide clear practitioner focused designs aimed to encourage knowledge working and learning, authors including Bradley and Osborne (1998), Thompson and Warhurst (1998) and Neef (1999) suggest such models over simplify the process and highlight the need for wider organisational policies and practices to encourage such interaction.

Indeed, in response to such criticism, Duffy (1998, p33) himself recognizes the limitations of such models, commenting:

'The relationship between buildings and people is a wide, ill-defined field which can be studied in as many ways as there are branches of science – from cultural anthropology to the boundaries of clinical psychology - but with little chance of clear-cut guaranteed success.'

Duffy (1998) and Grimshaw and Cairns (2000) further highlight a lack of empirical study to understanding the relationship between individuals and the physical environment, in relation to organisation effectiveness.

Such views are further summarized by Sundstrom (1986, p 27) who suggests that:

'the role of the physical environment in contributing to the effectiveness of organisation is still at the beginning stages with respect to research'

A common theme throughout the workplace design and interaction literature is the need for a well-considered change process, particularly in relation to structure, power relationships and wider cultural aspects.

Chiat (1998) considers that effective social networks as a driver of learning requires significant cultural change. In his study of learning within the US public sector, he notes a need for individual empowerment, creation of semi-autonomous teams and team based activities, cross-functional working and networked resources. He continues to suggest a need to break away from the traditional hierarchical bureaucratic culture which often stifled individuals.

Perri 6 et al (2002) support this observation, suggesting innovation within the UK public service will always be at risk if the organisational culture is not carefully nurtured. They note that culture can be a blockage to learning. Building on the work of Douglas (1998) they suggest the more hierarchical the institution, the less likelihood a culture of empowerment and autonomy will exist.

3.22 Physical Environment and Change

As with the implementation of the Learning Organisation, most authors have discussed the need for specific change strategies to be initiated when adopting new forms of workplace design. Most notably have been Toffler (1980), Nilles (1994), Duffy (1997), Thompson and Warhurst (1998), Cairns and Beech (1999) and Ward (2000).

Importantly, a number of writers further stress the importance of individualized design and change strategies to reflect departmental or interdepartmental context when implementing the integrated workspace (Becker and Steele, 1995; Worthington, 1997; Price, 2004; Myerson and Ross, 2005). Becker and Steele (1995) specifically use the term 'cafeteria style', suggesting the need to recognize that people, functions and work patterns are different and workplace needs may differ throughout the organisation.

Based on their work with the International Workplace Studies programme, Becker and Steele (1995) present a comprehensive summary of issues commonly faced when implementing an integrated workplace strategy, citing eight key considerations:

1. System interdependency: Changes to workspace and subsequent systems and processes will impact upon the entire organisation. As such strategies must be adopted to recognize the likely impacts upon associated parts of the organisation.
2. Changing expectations: The image of 'real work' for many employees and managers is sitting at a fixed space undertaking pre-determined routine tasks. Strategies must be implemented to ensure the goals of the integrated workspace are disseminated and new expectations expressed.
3. The right technology: Adopting new methods of working requires exploitation of new information technologies, such as improved communication methods to allow for increased remote working and wireless networks to encourage non-territorial working.
4. Education and training: Implementing any new ways of working requires the support of those it will affect. As such, providing management and staff with training about how to work and use new technologies in the new working environment is more likely to foster such support. Such an approach also provides an opportunity to identify potential problems
5. Performance assessment: A common theme of new workplace strategies is the associated freedoms it encourages, particularly with regards to innovation, decision making and distance from management. Such empowerment requires some form of performance monitoring to ensure effectiveness. This may include regular team meetings, target setting and review, or individual appraisal.
6. Employee participation: Gaining acceptance of new workplace approaches is key to successful implementation. As such, employees across the organisation should be encouraged to participate in the redesign process. This process must not simply solicit information from users, but fully involve them in developing, reviewing and approving proposed changes.
7. Process versus solution approaches: A one-size-fits-all model to workplace design is unlikely to meet the specific role and task needs of each building user, as such, workplace strategies should be individualized to recognize the different demands and goals of functions around the organisation. This requires a detailed examination and understanding of work practices across the company.

8. Organisational leadership: An integrated workplace strategy cannot be implemented without the involvement and commitment from the organisation's leaders. It is their role to articulate the vision that guides the strategy.

Fisher (2009) builds on the work of Becker and Steele (1995) to present a four tier, model to illustrate considerations to be made at each stage of the workplace change process. An interpretation of this model is made as follows:

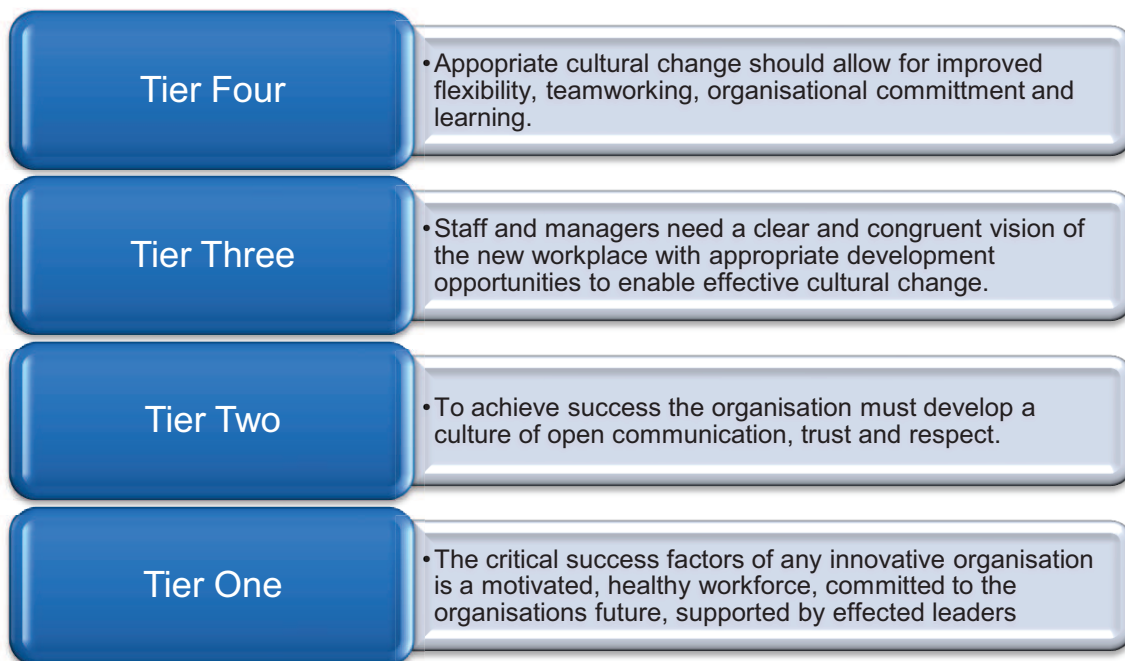


Figure 7 Workplace Health Model, Adapted from Fisher, P (2009)

3.23 Managing the Change Process

Both the learning organisation and workplace design literature suggest the need for an effective change management process to embed new styles of working within the emerging culture.

Whilst there appears to be documented change models to directly support such a combined reengineering process, management and organisational behavior literature has afforded significant attention to leading and managing change in a generic context.

One such model which appears to encapsulate many of the change considerations highlighted by other writers in this field, is that of Cummings and Worley (2009). They present a five stage process that they consider will provide a structured and activity-based method designed to engage all organisational members and reduce potential resistance. Such a model encapsulates the collaborative nature of WwW, the learning organisation and workplace design models.



Figure 8 Activities contributing to effective change management, adapted from Cummings and Worley (2009)

The first activity involves motivating change, and includes creating a readiness for change. Leaders must create an environment in which people accept the need for change and commit physical and psychological energy to it. Cummings and Worley (2009) suggest that the following three methods can help generate sufficient motivation for change:

- I. *Sensitize organisations to pressures for change* – leaders can make colleagues aware of the internal and external drivers for change. This can be achieved through ongoing communication and benchmarking with other organisations to raise awareness of new ideas and methods.
- II. *Reveal discrepancies between current and desired states* – leaders must make colleagues aware of the deficiencies within the organisation. It is considered such an approach will create a felt need for change.

- III. *Convey credible positive expectations for the change* – leaders must state explicit expectations of the change programme. It is considered positive expectations communicated to all organisational members can serve as a self-fulfilling prophecy and create greater commitment to the process due to the envisaged positive effects.

The second activity involves creating a vision. The vision provides a purpose and reason for change and describes the desired future state.

Supporting the earlier work of Collins and Porras (1996), Cummings and Worley (2009) consider that leaders must clearly state the purpose of the change and the core values attempting to be achieved. It is considered that such a vision can energise commitment to the change by providing members with a common goal and compelling rationale for why change is necessary. In earlier studies, Kotter and Schlesinger (1979) discuss the need for participation from organisational members to shape the vision, ensuring individual's values and preferences of how the organisation should look are taken into account.

The third activity involves developing political support for change. Specifically, this considers the need for change agents to identify powerful individuals within the organisation who can advocate the need for change to other members. Alderfer (1977) particularly notes the need for change agents to engage the support of those with existing power within the organisation, as it is considered such individuals are more likely to be threatened by a change in the status quo and act most defensively.

Greiner and Schein (1998) highlight the need for careful selection of the change agents, specifically outlining the need for such individuals to have knowledge and expertise of the area to be changed, to have charisma in order to inspire devotion and enthusiasm for the change, and to have well-developed social networks throughout the organisation in order to gain access to information and resources.

Cummings and Worley (2009) discuss the process of managing the transition as the fourth change activity. This involves moving from the existing organisation state to the desired future state.

Beckhard and Harris (1987) suggest this process can be achieved by following four key activities: activity planning, commitment planning, change management structures and learning.

- I. *Activity planning* involves creating a road map for change, citing specific activities and events that must occur if transition is to be successful.
- II. *Commitment planning* is the process of identifying key people and groups whose commitment is needed for change to occur. Whilst such a stage is a key element of developing political support for the change, this activity further involves the creation of specific roles for such individuals.
- III. *Change management structures* describes the need to create short term changes to the organisational structure in order to lead the change process. Whilst many writers note the need for change to be led by the senior team (Brown and Eisenhardt, 1997; Kotter and Schlesinger, 1979; Dent and Goldberg, 1999; Kotter, 1994), Cummings and Worley (2009) advocate the work of Beckhard and Harris (1987) suggesting the need to create a project manager to temporarily co-ordinate the transition and a steering group of organisational stakeholders to shape and jointly lead the project
- IV. *Learning processes*. Research at the Center for Effective Organisations (1998) ascertained change could be implemented more quickly when leaders consciously designed learning processes into the transition process. Writers including Kotter and Schlesinger (1979) and Armenakis, Harris and Mossholder (1993) promote the use of employee suggestion schemes and user participation, followed by clear dissemination of how individual ideas have been implemented.

Furthermore, Tenkasi, Mohrman and Mohrman (1998) discuss the need to create clear and simple systems to guide individuals through the new ways of working and accelerate shared meaning. They also cite the need for regular post-change review to encourage reflection, and potential modification of the new experience.

Finally, a process of 'local self design' is encouraged to accelerate transition. This involves handing a degree of autonomy to individuals or teams within the organisation to interpret the change in their own way and make minor modifications to the new ways of working, whilst ensuring the overall vision is achieved. In summary, the learning stage of the transition process is characterized by a commitment to continual dialogue between change agent and organisational members in order to provide opportunities to shape and gain commitment to the change process, better understand how each individual fits into the change process and tailor the process to local needs.

The final activity suggested by Cummings and Worley (2009) is that of sustaining momentum once the organisational changes are under-way. They discuss the tendency for organisational members to return to old behaviours unless they receive sustained support and reinforcement for carrying the changes through to completion. To achieve such continued commitment, the following four activities are suggested:

- I. *Providing resources for change* – implementing organisational change can be costly and require specific resources. As such, a devoted change budget to fund ongoing training and modifications is encouraged.
- II. *Building a support system for change agents* – Beer (1980) suggests organisational change can be difficult and tension-filled for those leading the change. As such they suggest a support network is developed for such individuals. The commission of change consultants can also aid this process.
- III. *Developing new competencies and skills* – organisational change frequently requires the development of new knowledge, skills and behaviors from members. In the context of this study, this could include new approaches to leadership, communication and power relationships. As such, change agents must ensure such learning occurs.
- IV. *Reinforcing new behaviours* – Fisher (1995) suggests, that in organisations, people generally do things that bring them rewards. As such, she promotes the use of formal and informal rewards to encourage the recognition of new desired behaviours.

3.24 Summary of Chapter

This chapter has presented research from a range of associated disciplines. Whilst a variety of views have been presented, common themes have emerged, most notably these are: the close alignment of many new public management principles and those of both WwW and the learning organisation; the possibility of an organisation's physical environment to contribute to improved communication, collaboration and openness in the workplace; the contribution of the workplace and other physical artifacts as a driver of learning organisation; and the need for appropriate cultural change activities when attempting to create the conditions of the learning organisation through workplace redesign.

It is, however, noted that despite literature relating to the learning organisation growing exponentially since the 1990s, relatively little attention has been given to public service organisations (Bapuji and Crossan, 2004; Kelman, 2005) and the private sector remains an over-relied upon source for theoretical understanding and empirical research.

Research that has been contextualized within the public sector, albeit often US-based, suggests close similarities between the transition from public administration to new public management, and the associated transition between modernist and post modern management practice, such as bureaucratic to learning organisation approaches.

Considering the ability of public sector organisations to adopt learning organisation principles, literature is limited, however, drawing upon what is available, and wider sources relating to new public management and the innovation landscape, the common issues of context, structure, leadership, power relationships, culture and inflexible systems emerge as key inhibitors, requiring a careful process of cultural change.

No specific cultural change models have been developed for public sector organisations in their drive to become learning organisations, although commonly adopted models based on research undertaken in private sector organisations include Kotter and Schlesinger (1979), Miller (1984) and Cummings and Worley (2009).

In considering the workplace environment as a driver of learning, whilst literature provides limited recognition that the physical environment has any ability to contribute positively to the achievement of the learning organisation, studies to date suggest an organisation's physical environment can provide benefit in a number of different ways. Authors such as Oborn (1987), Russell and Ward (1982), Peters and Waterman (1982), McClelland (1975), Lee (1999) and Myerson and Ross (2003) discuss the benefits to individuals within the organisation and present their conclusions from a micro level. Dovey (1999), Hillier and Hanson (1984) and Canter (1974) focus on the macro benefits and discuss how physical environment can improve organisation effectiveness.

More specifically, there is significant discussion in relation to the role of workplace design in removing symbols of power and status (Duffy, 1995), improve interaction and communication (Berg and Kreiner, 1992), create more mutually collective organisations (Leibson, 1981; Seiler, 1984; and Olivegren, 1987) and improve ambition (Steele, 1973). A clear relationship can be drawn between these principles and those of the learning organisation and wider postmodern management agenda.

To encourage such environments, there has been an evolution of workplace styles and design. Whilst it is acknowledged that many such designs have emerged from consultancy and architectural practice without any underpinning theoretical base (for example Duffy), others such as Becker and Steele (1995) or Myerson and Ross (2003 and 2006) are grounded in empirical research and the consideration of wider management, aesthetic and organisation studies. Furthermore, all designs cited in this study are supported by post-occupancy evaluation and testimonial, published in a range of practitioner and academic texts.

As with the principles of learning organisation, however, limited research has been conducted on workplace redesign within the public sector and studies which do exist are often US-based.

The limited number of UK public sector studies typically considers physiological responses to new workplace conditions such as temperature, air conditioning, and lighting following quantitative based post-occupancy evaluation. Writers such as Duffy (1998) and Grimshaw and Cairns (2000) note limited evidence-based research relating to the relationship between individuals and their physical environment, whilst Hartley and Alison (2002) note relatively little empirical research examining the processes of learning as a result of inter-organisational networks specific to the public sector.

Comparable to the literature relating to the learning organisation, empirical studies of workplace redesign in private sector organisations notes a number of commonly cited challenges. Such challenges include management style, the nature of work, over communication, noise, loss of privacy, lack of storage, close proximity to managers, increased observation, removal of job boundaries and visual distraction (Hundert and Greenfield, 1969; Brookes and Kaplan, 1972; Dean, 1977; Clearwater, 1980; Sundstrom, 1986; and Bradley and Parker, 2002). Closer interpretation of these issues suggests underlying concerns relating to context, power, status, hierarchy and need for cultural change.

Again, similar to conclusions drawn within the learning organisation literature, a common theme throughout the workplace design and interaction literature is the need for a well-considered change process, particularly in relation to structure, power relationships and wider cultural aspects (Toffler, 1980; Nilles, 1994; Duffy, 1997; Thompson and Warhurst, 1998; Cairns and Beech, 1999; Ward, 2000; Becker and Steele, 1995; Worthington, 1997; Price, 2004; and Myerson and Ross, 2005).

Based on their work with the US International Workplace Studies programme, Becker and Steele (1995) present one of the most commonly used change models when considering public sector workplace redesign, however, research suggests more generic change models are often adopted, failing to address some of the specific complexities cited earlier.

In conclusion, this literature review has identified distinct bodies of literature relating to public sector management, innovation, learning organisation and workplace redesign. There is clear overlap in much of this literature, although little is specific to the public sector.

Despite national initiatives such as WwW, there is a lack of empirical study investigating the impact of workplace design on learning. In a climate where public organisations are undergoing substantial reform and are continually required to innovate, this is an important area for further investigation.

This thesis will build upon the existing studies of workplace design and establish improved understanding of social and physical aspects of the workplace within public organisations. The outcome of such an investigation will enable better understanding of how the physical environment could facilitate the achievement of learning organisation principles.

Such an investigation will fulfill the following study objectives:

- To identify factors that assists and detracts from the development of learning in these contexts.
- To draw conclusions from this study to assist workplace design strategies within the public sector.

The following chapter will discuss the design of the research approach chosen.

4.0 RESEARCH APPROACH

This chapter fulfils the following objective:

- To develop appropriate methodology and methods to explore the impact of workplace design in two public sector organisations.

This chapter outlines the research approach adopted, its rationale and justification in support of the stated research objectives. The research strategy adopted is also explained alongside the methods of investigation used to gather primary data.

This study aims to understand the perceptions of building users as to both critical success factors that enable workplace redesign to develop a learning environment and the barriers against it. This will be achieved through empirical study of two WwW pilot projects implemented in within the UK public sector.

The second aim of this study is to use its results to provide a clear methodology for public sector organisations who wish to embark on such a programme of reform in the future. Given the practical nature of a professional doctorate such a practitioner focus is essential.

Eisenhardt (1989) offers a procedural framework for use in cross-case analysis, which guides the researcher from their original study objectives, through to the development of analysis themes, relationships, synthesis with literature and ultimate conclusions. This framework has been adopted in this study as a tool to make a practice-based contribution from case research. The process is summarized in Figure nine.



Figure 9 Research Process adapted from Eisenhardt (1989)

Crotty (1998, p2) describes the starting point in developing a research proposal as “answering two questions, firstly what methodology and methods will be employed in the research? and second, how do we justify this choice and use of methodology and methods?” Guba and Lincoln (1994) note that in order to ensure the soundness of the research and make its outcomes convincing the research process should be described in terms of four elements: paradigm, epistemology, ontology and methods.

The four elements are complementary but serve distinct functions in the justification of research. Methods describe the techniques and procedures used to generate and analyse data but such choices are embedded in a larger conception of what constitutes knowledge as such, the territory of epistemology. Whilst the distinction is itself contested Guba and Lincoln (1994) maintain that epistemology itself requires a subject – the ‘of what’ knowledge attempts to understand and this is the notion of ontology. For subjectivists the relation between ontology and epistemology is so intimate that their conceptual distinction is an error.

By contrast objectivists judge research methods by the extent to which the knowledge created is independent of the conditions and subjectivities of those who generate it. For subjectivists qualitative methods predominate and where quantification enters research it is in a subsidiary position to the discursive material it informs. For objectivists quantification offers the possibility of testing results against independent and objective standards and qualitative research normally plays a supporting role at best. This debate is seen by many – including Guba and Lincoln to be not so much a debate as a choice between alternative paradigms, different ways of conceptualizing the possibilities of research. We therefore have four closely connected levels at which research can be conceived – the paradigmatic level, ontology, epistemology and method.

It follows that choices between methods contain (to greater and lesser degrees of self-awareness) positions towards epistemology, ontology and paradigms. Building upon the work of Guba and Lincoln (1994), Perry, Alizadeh and Reige, (1996, p. 547), present a summary of alternative research paradigms and their associated epistemology, ontology and methods:

	Paradigms			
	Positivism	Realism	Critical Theory	Constructivism
Epistemology	Objectivist <i>Findings true</i>	Modified Objectivist <i>Findings probably true</i>	Subjectivist <i>Value mediated findings</i>	Subjectivist <i>Created findings</i>
Ontology	Naïve realism <i>Reality is real and apprehensible</i>	Critical realism <i>Reality is 'real' but only imperfectly and probalistically apprehensible. Triangulation is required to try to know it.</i>	Historical realism <i>'Virtual Reality' shaped by social, economic, ethnic, political, cultural and gender values, crystallized over time.</i>	Critical relativism <i>Multiple local and specific 'constructed' realities</i>
Methods	Experiments and Surveys <i>Verification of hypotheses: chiefly quantitative methods</i>	Case Studies and Interviews <i>Triangulations, interpretation of research issues by qualitative methods.</i>	Dialogic and Dialectical <i>Researcher is a transformative intellectual who changes the social world within which participants live.</i>	Hermeneutical and Dialectical <i>Researcher is a passionate participant within the world being investigated</i>

Table 11 Perry, Alizadeh and Reige, (1996, p. 547), Summary of alternative research paradigms.

The sections that follow outline the reasons for the paradigmatic commitments in this study in order to make these commitments explicit and therefore provide a coherent grounding of the justification for the chosen research methods.

4.1 Learning from the field

This introduction to paradigms, ontology, epistemology and methods may suggest that a rational decision procedure should move from the establishment of paradigmatic commitments encompassing ontological and epistemological positions down to the level of discrete choices around methods, sampling and analytical techniques. To present it in these terms would however be a post – hoc rationalization. Whilst research methods require justification in terms of these wider debates the process of choosing them was informed by a wider range of considerations – these included an understanding of the authors own pre-existing commitments, discussions with research partners and an analysis of the research that had been undertaken informing where a potentially useful contribution could be made. This section outlines these considerations.

Some biographical material is a useful starting point to identify the authors own pre-existing commitments in this philosophical and methodological landscape.

Having adopted qualitative approaches for bachelors and masters degrees as well as being involved in a number of qualitative consultancy and research projects in recent years, it would have been simple to immediately disregard adopting a quantitative, positivistic philosophical stance. However, early investigation of existing empirical research within the workplace design disciplines suggested a predominance of questionnaire and large-scale survey techniques; as such, a quantitative approach could not be discounted.

However, discussions with colleagues in central government and pilot organisations who had adopted WwW specifically noted the absence of research that sought employee perceptions of workplace redesign and the subsequent impact upon learning.

This presented both a significant opportunity for contribution to practice and, as the first qualitative study of its kind, a potential contribution to the development of theory.

Furthermore, a review of the literature relating to learning organisations and public sector cultural change demonstrated that whilst a range of research methods have been adopted, qualitative methods have dominated. Within these disciplines, researchers such as Schein (1991) and Sackman (1991) specifically discuss the limitations of deductive quantitative research. Schein (1991) highlights the need to gain rich insight into an organisation in order to understand its culture and change process, suggesting quantitative data would require the researcher to make too many assumptions. However, an alternative view is presented by Hofstede (1994), who argued that the use of qualitative data in research relating to culture raises questions as to reliability and generalisation.

Yanow (2004) provided significant clarity in relation to an appropriate methodological approach. In her study of the impact of public and community buildings in Israel, she adopted a case study methodology set within a realist paradigm. In this research, she suggests gathering data in relation to building design often adopts one or more of the following inquiry processes:

- Through observing (with whatever degree of participating);
- Through talking to people (conversational or “in-depth” interviewing); and/or
- Through identifying, locating, and closely reading or viewing relevant research documents (e.g., primary data such as memos, correspondence, quarterly and annual reports, web pages, and the like, and secondary data such as contemporaneous newspaper accounts) and/or other materials (e.g., photographs, films, maps, and the like)

Yanow’s approach resonated with the author’s research aims and the range of data indicated above would enable the generation of rich case study material.

With an emphasis upon gathering employee perceptions, critical theory was considered; however, traditionally such a research approach is associated with long term, ethnographic studies. As the WwW initiative is relatively new and the research participants have only recently emerged from their implementation phase, it was considered there would not be sufficient access to historical and longitudinal data normally associated with critical theory (Guba and Lincoln, 1994).

Similarly, the social constructivism paradigm would have provided an opportunity for the researcher and respondent to co-construct knowledge through joint interaction. However, as the researcher had been given access to a wide range of documentary data as well as interview participants, it was considered such reliance on only dialectical sources would be probative.

Realism remained as the paradigm whose commitments are presupposed in the research approach.

Realism has elements of both positivism and constructivism and provides a world view in which an actual social phenomenon can be ascertained even though it is imperfect and at best probabilistically comprehensible (Perry et al, 1997; Guba & Lincoln, 1994; Merriam, 1988; Perry & Coote 1994).

Research adopting this paradigm is designed to enable the researcher to determine the reality of a social phenomenon through the triangulation of a number of sources.

Bhaskar (1978) further suggests that realism interprets the world using three domains: mechanisms, events and experiences. Such an approach allows researchers to observe the empirical domain to discover, by a 'mixture of theoretical reasoning and experimentation' (Outhwaite 1983 p. 332), knowledge of the real world, by naming and describing the generative mechanisms that operate in the world and result in the events that may be observed.

Christie et al (2000) further suggest realism is the most appropriate paradigm when the area of investigation has not been fully discovered and comprehended. For example, Case study research may lead to a more informed basis for theory development (Bonoma 1985; Eisenhardt 1989; Yin 1989) in a newly developing area of research.

A further goal of realism research is that it should discover what conditions are required for certain events to occur which further supports the study objective to explore the impact of workplace design in two public sector organizations.

This view is supported by Silverman (2000) who considers that realism research can lead to research findings that are needed and are of practical use. As a practice based study, with an aim to providing an implementation strategy for future participants of WwW, this was an important factor for consideration.

4.2 What Does Realism Entail?

As argued above, in adopting a particular research paradigm, a researcher is committed to a series of complimentary categories, termed by many authors as the supporting epistemology, ontology and methods.

Epistemology bears mightily on the way researchers go about the research process and it is essential to justify the philosophical assumptions underpinning the research inquiry that will inform the ontology and methods adopted. Easterby-Smith et al (2002) note, that failure to think through philosophical issues can seriously affect the quality of research since it can help to clarify the research design.

Most accounts suggest that there are two epistemological perspectives, objective and subjective. The objectivist epistemology holds that meaning exists apart from the operation of any consciousness. Truth and meaning reside in objects and careful research can attain that objective truth and meaning (Crotty, 1998). At the other end of the continuum is the subjectivist approach.

Morgan and Smircich (1980) suggest that ontologically, a subjectivist views reality as a projection of individual imagination. This stresses the importance of the subjective experience of individuals in the creation of the social world.

The alternative research paradigms model developed by Perry, Alizadeh and Reige, (1996), offers a hybrid epistemology that sits between subjective and objective perspectives. Termed 'modified objectivist', this epistemology is designed for studies in which a wide range of data sources are available that may lead to conclusions which are probably true (objectivist) yet are partially shaped by the subjective experience of the individuals contributing to the study. As such, this type of research searches imperfectly towards an understanding of a common reality. Perry, Alizadeh and Reige, (1996) suggest at the heart of a realist paradigm is a modified objectivist epistemology.

Ontology considers the researchers' view of whether they see the world as objective and external to the researcher or whether the researcher sees reality as subjective and participative. An objective study would typically assume the research is independent from the researcher, whilst subjective research would see the researcher taking an interactionary role.

Collis and Hussey (2003) produced a comparison of the ontological differences, in which he summarises the differing approaches, as follows:

Ontological Approach	
Quantitative/Objective	Qualitative/Subjective
A deductive process Cause and effect Static Design	An inductive process Mutual simulations shaping the factors
Categories isolated before study	Emerging design – categories are identified during the research process
Context free Generalisations leading to prediction, explanation and understanding.	Context bound Patterns and theories are developed for understanding.
Accurate and reliable through validity and reliability	Accurate and reliable through verification.

Table 12 Ontological Differences (Collis and Hussey, 2003, p49)

A more simplified explanation is provided by Bryman (1988) who indicates that quantitative research is typically exemplified by social survey and experimental investigations, whilst qualitative research tends to be associated with participant observation and unstructured, in depth interviewing.

Hussey and Hussey (1997, p54) further demonstrate this in the following table:

Quantitative	Qualitative
Uses large samples	Uses small samples
Concerned with hypothesis testing	Concerned with generating theories
Data is highly specific	Data rich and subjective
The location is artificial	The location is natural
Reliability is high	Reliability is low
Validity is low	Validity is high
Generalisations can be made from sample to populations	Generalises from one setting to another

Table 13 The Quantitative and Qualitative Paradigms (Hussey, 1997, p54)

We need not accept these subjective/objective dualisms, however, and nor must we accept that objectivist ontology requires an objectivist epistemology. As we have seen, realism combines objectivist ontology with a subjectivist epistemology. It is often credited to Bhaskar (1989), although has been discussed widely by authors including Archer (1995, 2000 & 2003), Sayer (2000), Fleetwood and Ackroyd (2000 & 2004) and Archer et al (1998).

Occupying a space between positivism and social constructionist approaches, this approach is ideal for researchers who have access to a wide range of data sources, often both quantitative and qualitative.

Whilst both quantitative and qualitative approaches can be adopted in the realism paradigm, it is considered that as this research is interested in the subjective experience of members of a certain group, a research approach which explores the complex site of individuals and one which is sensitive to interpret individuals' social world in greater detail is required.

Huberman and Miles (1998) consider such an approach allows participants to describe and illuminate the context and conditions under which this research takes place, whilst also attempting to make some form of measurement. Such measurement is typically achieved through the analysis of collected data against tested theoretical models in order to draw more apprehensible conclusions. Bourdieu (1993) considers this dual utilization of subjectivity and objectivity can be particularly complementary.

In summary, It is envisaged that by studying participants through a realist lens, the researcher can better understand individuals' subjective experience of the WwW environment and the value they gained from this workplace design, whilst additionally, drawing objective conclusions as a result of measuring some findings against tested workplace design and change models.

4.3 Methods

4.3.1 Case Study research

As we have seen, in a similar study, Yanow, (2004), successfully adopted a case study approach as an appropriate method of presenting findings for analysis.

Yin (1994, p13) defines a case study as:

'an empirical inquiry that investigates a contemporary phenomenon within its real life context, especially when the boundaries between phenomenon and context are not clearly evident.'

Referring to studies of culture and change, he particularly notes the appropriateness of case study research as a methodology, citing its depth of analysis and ability to triangulate through the use of a number of converging data sources.

This suggests that a key benefit of a case study is the potential for a researcher to use a wide range of data sources, without having to focus solely on either quantitative or qualitative resources. This is particularly beneficial in a study of learning, culture and workplace design that has historically involved qualitative and quantitative data gathering. The potential to use such a range of collection techniques also allows the researcher to gather significant research evidence.

As with all research approaches, case studies provide some limitations. Notably, Huberman and Miles (1998) discuss a lack of direction with regards to building theories from case study based research. Others discuss the lack of rigour in case study research, particularly citing issues relating to bias and generalization (Tellis, 1997).

In response, Yin (1994) argues, case studies are concerned with expanding theories whilst quantitative analysis is concerned with enumerating frequencies. As such, case studies are less concerned with the logic of replication but with using theories as an aid to designing research and data collection and as the main vehicle for generalising the results of the case study (Yin 1994).

A further consideration within such an approach is the decision whether to use single or multiple case studies. Perry and Coote (1994) consider such a decision is chosen at the discretion of the researcher and suggest no rules are in place. Yin (2003, p53) provides greater clarification, stating

“even if you can only do two case studies, your chances of a good case study will be better than using a single case study. Single case studies are vulnerable if only because you have ‘all your eggs in one basket’. More important, the analytical benefits from two case studies may be substantial.”

It is further considered multiple case studies provide greater opportunity for replication of data and subsequent opportunity for verification and common conclusions. (Yin, 2003; Yin, 1994; Perry and Coote, 1994)

One of the greatest concerns of adopting a case study approach was the vast amount of data that could be generated. Yin (2003) suggests this problem can be overcome by the skill of the investigator. The design of an initial conceptual framework can aid such narrowing of data collection.

In ascertaining data collection requirements for the case study, a conceptual framework was developed. This provided the researcher with a logical plan to identify initial themes for investigation. Themes were drawn from existing literature. Three key areas were identified:

1. The existence of a learning culture within the organisations, drawing upon the work of Senge (1994), Hitt (1995) and Lassey (1998).
2. The role of the physical workplace as an enabler of learning, drawing upon the work of Ward and Holtham (2000), Duffy (1997), Myerson and Ross (2003, 2006).
3. Common models of change when facilitating learning and adopting new forms of workplace design, drawing upon the work of Becker and Steele (1995) and Cummings and Worley (2009).

It was envisaged such themes would provide the researcher with an opportunity to develop a framework that could be considered a standard for public sector organisations wishing to encourage a culture of learning through integrated use of workplace design.

4.3.2. Case Study Selection

Brannick and Roche (1997) suggest the most challenging issues faced by a researcher when identifying potential research participants are gaining initial access to the case study(ies), suspicion regarding the aims of the researcher, and time constraints. Additionally, this research faced further challenges, notably the limited number of available research participants, and potential reluctance of organisations to allow access given the relative embryonic stage of the WwW initiative.

To aid access in identifying potential case study sites contact was made with the WwW project team within The Office of Government Commerce (OGC), an independent office of HM Treasury.

Twelve public sector organisations were identified as having fully piloted the WwW initiative. In differentiating from previous quantitative occupancy surveys carried out within the pilot organisations, the researcher promoted the benefits of qualitative research as a tool to gain richer insight into the employee perceptions of the project.

To further endorse this study, senior members of the OGC made contact with pilot organisations on behalf of the researcher in order to gauge their initial interest in taking part in the study. Nine organisations expressed an interest in participating.

Additionally, to further narrow the choice of sites, the researcher, in consultation with colleagues within the OGC, identified further selection criteria, namely:

- At least one of the Working without Walls objectives within the organisation should be the achievement of learning organisation principles.
- The redesign process should be complete and implemented for over two years. This would allow for a period of readjustment and refinement.

In consideration to such refinement criteria, it was concluded two public sector organisations provided access to information which could shed light on a previously inaccessible phenomenon.

4.3.3 Profile of Case Study Organisations

4.3.3.1 *Organisation One*

Employing over 5500 staff in ten key departments, this government department is housed in a 16 storey office development built in the early 1960s.

The organisation has a vision to be a modern, highly efficient operation, which provides complete, accurate and up to date information and services that fully meet customer and stakeholder requirements.

In order to achieve this vision, the organisation highlights two priority objectives in its Strategic Agenda (2008-2013):

- Develop the flexibility and capabilities of our people and organisation in a way that makes us more productive and provide a faster response to changing needs of stakeholders.
- Encourage people to contribute fresh ideas and creativity and demonstrate the confidence and personality to challenge and improve the way we do things.

The organisation's strategic plan (2009) particularly emphasises the role of the built and working environment in achieving such vision and objectives. This is most notable in its New Ways of Working Strategy and Buildings Strategies which highlight the following initiatives:

Non-territorial working – removing the link between staff and their desks to encourage changes in working practices, increase communication and (incidentally) reduce workstation requirements by over 20%

Leadership development – defining what the organisation means by leadership and building the competencies and behaviours into the assessment processes, supported by workshops, training and the “FM” (For Managers) initiative

Management restructuring – moving to flatter structures and recasting the spans of control within the organisation

Recruitment and selection – using assessment centres and moving to job specific recruitment and matching of competencies to job requirements

Job design – determining meaningful job content and defining competencies and individual objectives for achievement

Performance management – introducing a competency framework and increasing the rigour against which staff are assessed and performance managed

Job families – supporting the Professional Skills in Government (PSG) initiative through grouping jobs with common skills and requirements to provide career paths and individual support in development activities

A building strategy and subsequent workplace redesign programme was launched in 2006 to achieve the following key objectives:

- Overcome the criticisms of poor quality accommodation and demotivating working conditions
- Introduce non-territorial working for best-in-class use of space
- Design an environmentally sustainable estate through the adoption of new building techniques and technology
- Increased provision of social space and investment in ICT to improve knowledge transfer

4.3.3.2. *Organisation Two*

Formed in 1991, following a merger of two existing agencies, this public sector organisation employees over 1200 employees based across 13 offices. Its primary role is to support regional economic development.

Holding an annual budget in the region of £450m, the organisation is governed by a government appointed board, operating on a fixed term of office, in partnership with a range of stakeholders including local authorities and private sector agencies. The organisation is led by a Chief Executive and supported by a senior management team responsible for the day to day running of activities and projects.

A central base houses over one third of the staff working across five functional groupings. Traditionally, the twelve subsidiary offices were afforded a large degree of autonomy, preparing their own annual plans, managing budget allocations and operating locally agreed operating procedures. Whilst some level of autonomy remains, in recent years more control has been exercised from head office, with the introduction of performance targets, common standards, systems and processes and shared administrative services.

In 2001, a prime objective of the then Chief Executive was to create a fresh organisational culture based on the principles of continual improvement through shared decision making, teamwork and employee participation.

Early feasibility studies suggested progress would be hampered by the existing office accommodation, a typical 1960s office buildings comprising of long corridors and rows of enclosed offices. Open plan space was limited and used only to house administrative and secretarial staff. It was considered such layout reflected a traditional hierarchical and bureaucratic structure which would stifle opportunities for participation and creativity. The WwW initiative was adopted as a driver of cultural change.

The key objectives of the WwW project within this organisation were to:

- exploit the business benefits enabled by technology changes and innovative workplace design;
- enhance employee productivity and satisfaction; and
- to develop a positive, productive and creative workplace culture.

Embedded within the objectives of WwW is a desire for cultural change towards a flat and flexible management structure based upon the principles of openness and transparency in the workplace. In recognition of this, a key design objective was to create an environment that was free from visible hierarchy and status symbols.

A new office development was procured in 2001. This building was designed to support the cultural change process and articulate a particular set of employee values based around the themes of co-operation, results, expertise, forward-thinking and empowerment.

With a remit to encourage innovation, such values are based upon the principles of leading by example, to ensure its own operations, interventions and impacts reflect the guidance it provides client organisations, as well as to attract and retain staff and meet the needs of changing demographic groups.

During the period of the research, the organisation's head office was principally housed in a single seven storey city centre building procured in 2001. However, in 2008 a second six storey building was procured. There is approximately a five minute walk between the two.

This study will consider both head office locations.

The first building (Building A) is a former Post Office parcels depot built around 1903. Designed in a style known as monumental renaissance, this ostentatious, imposing building is loosely based on an Italian palazzo with an exaggerated scale and grand sculptured facade. The organisation occupies two floors alongside a range of social areas designed for shared use.

The second building (Building B) is a modern seven storey building built in 2001. It forms part of 400,000 square foot office development housing a range of public and private sector organisations. The organisation occupies two floors alongside a range of social areas designed for shared use.

4.4 Case Study Design

Common techniques associated with a realist paradigm include documents, archival records, interview, simulation, focus groups, direct observation, participant observation and questionnaires.

Access to the two sites was negotiated with senior management members and unlimited access for interview and observation purposes was granted. Further access was given to a wide range of corporate information.

In total, seven data sources were used in order to build the case study:

- Corporate documents relating to the rational for workplace redesign
- Corporate documents relating to the implementation of workplace redesign
- Observation of organisational members operating within the redesigned workplace
- Semi-structured interviews with managers within the organisations
- Semi-structured interviews with staff within the organisations
- Semi-structured interviews with change agents responsible for the implementation of WwW from the organisations
- Observation of physical artifacts within the organisations.

In order to ascertain the appropriateness of such data collection methods, Yin (2003) reviews the advantages and weaknesses of different approaches:

Sources of Data	Strengths	Weaknesses
Corporate Documents relating to the rationale for workplace design and implementation of workplace design	<p>Stable - can be reviewed repeatedly.</p> <p>Unobtrusive - not created as a result of the case study</p> <p>Exact - contains exact names, details etc.</p> <p>Broad coverage – providing data relating to the entire organisation</p>	<p>Retrievability can be low</p> <p>Biased selectivity if collection is incomplete</p> <p>Reporting bias – reflects bias of researcher</p> <p>Access - may be deliberately blocked</p>
Observation of organisational members operating within the redesigned workplace	<p>Reality - covers events in real time</p> <p>Contextual - covers context of event</p>	<p>Time consuming</p> <p>Selectivity - unless broad coverage</p> <p>Reflexivity - event may proceed differently because being observed</p> <p>Bias due to investigators manipulation of events</p>
Semi-structured interviews with managers, staff and change agents within the organisation(s)	<p>Targeted - focuses directly on case study topic</p> <p>Insightful - provides perceived casual inferences</p>	<p>Potential bias due to poorly constructed questions.</p> <p>Potential response bias.</p> <p>Inaccuracy due to poor recall.</p> <p>Reflexivity - interviewee gives what interviewer wants to hear</p>
Physical Artifacts	Insightful into cultural features	Selectivity

Table 14 Yin (2003) Sources of Evidence - Strengths and Weaknesses

As the realist paradigm is based on multiple perceptions about a single reality, the use of several data sources provides significant opportunity for triangulation and subsequent interpretation.

4.4.1 Corporate Document Research

A key attribute of a realist research paradigm and case study methodology is the use of a wide range of data sources. Whilst no qualitative evaluation of the WwW initiative had been made, there were a number of guidance documents, implementation plans, quantitative occupancy surveys and project rationales that had been produced internally by the pilot organisations and centrally by the OGC. Such corporate document research was deemed useful to integrate into the overall findings of the study.

Saunders et al (2003) suggest initial desk research is strongly recommended to gain background knowledge of a subject as well as get useful leads that will help to get the maximum from a research budget.

Throughout the study, access was given to a wide range of internal documentation. Whilst these did not provide rich interpretations of the impact of WwW, they were useful in providing the researcher with contextual background such as strategic aims, key process phases, strategy formulation and strategy implementation.

4.4.2 Semi-Structured Interviews

A key element of the research methodology involved 26 interviews during the period May 2009 to December 2009.

A sample of 15 participants from organisation one and 11 from organisation two were interviewed using a semi-structured approach. Jankowski (2000) states that semi-structured interviews are a powerful data collection technique when used in the context of a case study research method. Such interviews have no fixed wording of questions or ordering of questions, instead, the interviewer has a list of the main themes to be investigated. This ensures the interview remains focused, whilst allowing scope in both questioning and answers. Such an approach is considered to generate the type of rich qualitative data required for a realist study.

Atkinson and Silverman (1997) further consider that interviews provide an opportunity for a researcher to gain rich, in-depth, experiential accounts of events or episodes in the life of the respondent, which in turn ideally describes the purpose of this study.

Fontana and Frey (2002, p144) note a growing realization that interviewers are not neutral in the interview process, but are active participants in an interaction with respondents. As such, interviews can be considered negotiated accomplishments of both interviewers and respondents that are shaped by the context and situations in which they take place. This view is supported by Schwandt (1997, p79) who comments:

“it has become increasingly common in qualitative studies to view the interview as a form of discourse between two or more speakers or as a linguistic event in which the meanings of questions and responses are contextually grounded and jointly constructed by interviewer and respondent.”

This suggests a move from the traditional interview in which the researcher remained passive, to a social encounter in which the outcomes are socially situated and constructed by both respondent and interviewer. (Gubrium and Holstein, 1998; Silverman, 1993; Dingwall, 1997)

As such, in this study interviewing was designed to be more than a process of asking questions and getting answers. Holstein and Gubrium (1995) promote the adoption of empathetic interviewing, which will be adopted in this study. Empathetic interviewing is a technique that overcomes issues such as the asymmetric nature of a traditional interview (Atkinson and Silverman, 1997), and the recognition of the interviewer as a person historically and contextually located with conscious and unconscious motives, desires, feelings and biases (Scheurich, 1995). Denzin and Lincoln (2003) further considers traditional interviewing is ill-equipped to capture the attention and hearts of readers.

Indeed, Kong et al (2002) terms the empathetic interview as a 'methodology of friendship' (p254), noting that the researcher and respondent work together to create a mutually constructed narrative. Gubrium and Holstein (1998) further promote the use of storytelling within the empathetic interview process. This builds upon the work of Sarup (1996) who highlighted the benefit of allowing respondents to explain chains of events or plots to illustrate occurrences within their lives.

The researcher considers the adoption of an empathetic approach is necessary. Whilst having no direct relationship with the case study organisations, a background in public service management has led to the development of a range of values, beliefs and contextual understanding. Such a background will undoubtedly contribute to the researcher's construction of meanings throughout the research process. As such, the adoption of an empathetic approach acknowledges the impossibility of remaining 'outside of' the subject matter while conducting the research.

As part of the interview process, respondents were also encouraged to tell stories of how they used the physical environment to aid learning. Particularly they were asked to reflect upon the enablers or barriers within the organisational context. Boje (1991) considers that in doing so, members re-live their experience and present information in a plot where there is a narrative structure of events with a beginning, middle and an end. Such an approach allowed the researcher to tease out the experience that is unique to the individual and better understand the context of the organisation being studied.

4.4.2.1 Framing the Interviews

Numerous sources of guidance are available regarding techniques of semi-structured interviewing (eg Babbie, 1992; Kahn and Cannell, 1957). When approaching empathetic interviewing, Fontana and Frey (2000) particularly note the importance of following a format which encourages an informal conversation.

As such, they note the need to adopt the tone of a 'friendly' chat, breaking the ice with introductions and general questions, remaining close to the conceptual framework when asking questions, and avoiding voicing personal opinions on the matters discussed.

To ensure a conducive interview process, the researcher adopted the following key considerations:

The Interview Setting – Fontana and Frey (2000) highlights the importance of carefully choosing the interview setting. For this study the researcher could choose a formal interview setting such as a meeting or conference room, or an area of informal social space. Whilst the informal meeting space was considered to be more given to the nature of this study, formal social space was chosen to avoid potential interruption.

Understanding the Language and Culture of the Respondents – Fontana and Frey (2000) further discuss the need for the researcher to be familiar with the terminology used by respondents and an awareness of how the organisation operates. As such, the researcher engaged in a period of organisation familiarisation.

Discussions with members of each senior management team provided an awareness of cultural elements such as organisational structure, history, rites and values, whilst overt observation and building orienteering provided an understanding of artifacts and creations. Such informal discussions and observation further provided a familiarity with the language used and informal networks throughout the organisations. Review of internal documentation ensured the researcher understood key cultural aspects of the organisations and functions within them.

Deciding on How to Present Oneself – a choice had to be made of whether to present oneself as an academic completing a research study, or an individual with an interest and background in public services. A pilot study undertaken in a different public sector organisation provided the researcher an opportunity to try both approaches. Given the empathetic interview approach, the latter was adopted and a mini biography of the researcher was provided prior to the interview process.

As discussed by Spradley (1979), it was considered such an approach would encourage the respondents to be more open in their comments and comfortable using routine public service terminology.

Locating an Informant - Fontana and Frey (2000) note the benefits of a researcher building rapport with an individual within the case study organisation who, although not part of the interview process, can act as a guide or translator of cultural features, for example language, terminology, hierarchy etc. The researcher identified informants both within the case study organisations and external from the Office of Government Commerce. Such an approach ensured the researcher better understood the cultural ways of the respondents which allowed for more appropriate construction of questions and subsequent translation of responses.

Gaining Trust – Gaining trust is essential to the success of interviews. It was important that the respondents did not feel the interviewer was acting as a management informant or would distort views. A pre-interview email explaining the purpose of the research was used to allay any pre interview fears. This was supported by a detailed explanation of the research ethics. Furthermore, the researcher spent considerable time within the organisation familiarizing himself with the surroundings and personnel, thus providing an opportunity to get to know potential respondents prior to the interview process.

Establishing Rapport – The period of familiarisation within the case study organisations allowed for a rapport to be developed with research participants. This was further aided through the interview introduction process which allowed the researcher and respondent to learn more about each other, their backgrounds and reiterate the purpose of the study. Fontana (2002) considers this approach to be essential in empathetic interviewing.

Collecting Empirical Material – a range of tools were utilised to record empirical data collected. Data recorders were used, with the permission of research respondents, in the majority of interviews. Such data collection was further supported by written notes of key points discussed. The researcher further recorded, in written form, key changes in verbal and body language from the respondent, for example when a point was emphasised or accompanied by gesture. To maintain a visible record of artifacts, particularly use of social space, photographs were further taken to act as a prompt during the write up stage.

4.4.2.2 *Choice of Interview Respondents*

The researcher identified two categories of interviewee from each organisation: change agents responsible for implementing the WwW methodology, and employees operating within the new environment, who had also experienced the organisation pre WwW.

Drawing on the literature from authors such as Becker and Steele (1995), Cummings and Worley (2009), Senge (1994), Du Plessis, du Plessis and Millett (1999), Fisher (2009), Duffy (1997), and Myerson and Ross (2003, 2006), interviews with WwW Change agents were designed to collect data regarding the following:

- The change process in implementing WwW.
- Critical incidents which occurred before, during and after the change process;
- Perceptions of the impact of change at strategic and operational level.

Semi-structured interviews based upon the themes identified by Senge (1994), Hitt (1995), Lassey (1998), Ward and Holtham (2000), Duffy (1997), Myerson and Ross (2003 and 2006), were undertaken with employees operating within the new environment. These interviews were designed to investigate:

- Their experience of the working environment, focusing upon opportunities and barriers they encountered when addressing the principles of the learning organisation.

Most questions were open-ended to ensure detailed exploration of participant perceptions. In particular questions were focused on individuals' experience of learning pre and post WwW.

The interview questions (see appendix one) were intended to get to the heart of the way individuals construct and experience their participation learning pre and post WwW. To aid this, the questions were designed to encourage participants to give specific, detailed examples of experiences, behaviours, actions and activities to help the researcher to interpret their perceived values of WwW

4.4.2.3 *Sample for Organisation One*

The following table summarizes the grade and department of those sampled for interview in organisation one:

Semi Structured Interviews with Building Users		
Code	Grade	Department
C11	AA (Administrative Assistant)	Operations
C12	AA (Administrative Assistant)	Projects
C13	AO (Administrative Officer)	Operations
C14	AO (Administrative Officer)	HR
C15	AO (Administrative Officer – Fast Typist)	Operations
C16	EO (Executive Officer)	Operations
C17	EO (Executive Officer)	Policy
C18	EO (Executive Officer)	IT
C19	HEO (Higher Officer)	Policy
C110	HEO (Higher Officer)	Operations
C111	SHEO (Senior Higher Officer)	Projects

Semi Structured Interviews with Change Agents		
Code	Grade	Department
C112	Change Agent	WwW Team
C113	Change Agent	Facilities Team
C114	Change Agent	Operations
C115	Change Agent	Policy

Table 15 Participant Sample for Organisation One

4.4.2.4 Sample for Organisation Two

The following table summarizes the grade and department of those sampled for interview in organisation two:

Semi Structured Interviews with Building Users		
Code	Grade	Department
C21	AA (Administrative Assistant)	Finance
C22	AA (Administrative Assistant)	Operations
C23	AO (Administrative Officer)	HR
C24	AO (Administrative Officer)	Research and Policy
C25	AO (Administrative Officer)	Operations
C26	EO (Executive Officer)	Finance
C27	EO (Executive Officer)	Operations
C28	EO (Executive Officer)	Research and Policy

Semi Structured Interviews with Change Agents		
Code	Grade	Department
C29	Change Agent	WwW Team
C30	Change Agent	Facilities Team
C31	Change Agent	Operations

Table 16 Participant Sample for Organisation Two

4.4.3 Observation of Physical Artifacts

Built spaces, decor, and so forth *"are all symbolic objects...which refer to the manners and morals...and express the significance of the people and their way of life..., [evoking] sentiments about who they are and...justifying [a] vision of the [meaning] of their world."*

Warner (1959; p44-50)

As realist research is neither value-laden nor value-free, rather, they are value-aware, a participant's perception for realism is a window to reality through which a picture of reality can be triangulated with other perceptions (Healy and Perry, 2000). As such writers such as Yanow (2004) and Merriam (1998) suggest, the research can be characterised by responsiveness to context and non-verbal indicators.

Yanow (2004) particularly considers observation of physical artifacts essential when undertaking studies of a built space. She notes that, whilst built spaces may be literally mute, they have their own 'language' of design elements through which they articulate properties, identities, values, and so on in a nonverbal way. She further states observation of physical artifacts particularly provides non-verbal meaning to the context in which the organisation operates and aids the interpretative researcher in their sense making process. She continues to suggest that analysis of architecture and space can provide important situation specific knowledge.

As such, the final set of data gathered was from observation of physical artifacts such as building layout, social space, and the extent to which social space was being used. This particularly drew upon the work of Ward and Holtham (2000), Duffy (1997) and Myerson and Ross (2003 and 2006).

This presented an opportunity for the researcher to observe the way the building was being used to encourage social interaction and potential learning.

Writers including Mehrabian (1972) and Weitz (1974) suggest such observation requires analysis of three principle areas of nonverbal communication; vocabulary of design, gestures, and design proxemics.

- *Vocabulary of design* places emphasis upon the observation of physical materials such as dress code, personalization of space, use of construction materials such as glass etc.
- *Gestures* reflect personal attributes which could constitute power roles and status such as size of workspace, use of open or closed plan offices, use of glass etc

- *Design proxemics* considers the use of space itself and particularly elements such as differences in décor, provision of social space etc.

To gain maximum data from observation, the researcher used the buildings in various ways. Firstly there was a period of familiarisation, walking through them, sitting in social areas, ordering a coffee in the restaurants etc. Secondly, was a process of watching and listening to employees as they used the social space. Finally, engaging with the built space also allowed familiarity of other physical artifacts such as furnishings, artwork, décor etc.

In earlier studies of building design, Yanow (1996 and 2000) suggests such observation allows for improved interview design. The author adopted such an approach for this reason, also anticipating that the observation would aid the process of confirming or disconfirming evidence from other document research.

Whilst Collis and Hussey (2003) consider observation is a method of collecting data clearly associated with a realist paradigm, they warn caution, particularly citing the issues of 'demand characteristics'. Demand characteristics refer to the potential nervousness that may occur when an individual is being observed. Such nervousness may subsequently affect the research. For the purpose of this study, the use of observation was to understand what physical artifacts were in place to encourage learning and the extent to which social space was being used. Space, rather than individuals was to be observed which was hoped would alleviate the potential issues of nervousness.

In summary, it was considered that the use of a multiple case study approach would provide an opportunity to draw common conclusions and recommendations using a range of data sources. Such a broad range of sources would help to establish which factors are important or detrimental when using physical space to encourage learning.

4.5 Validity

The purpose of this study is to offer interpretative insights that can influence professional practice within a range of public sector organisations adopting WwW. As such, every attempt must be made to ensure the conclusions are valid.

A common criticism of qualitative research is the difficulty of validity, however, authors such as Walliman (2000) and Maxwell (1992), suggest problems only occur depending upon the type of validity the researcher requires. In support of this view, Maxwell (1992) suggests five kinds of validity:

- *Descriptive validity* - the factual accuracy of the account that is not made up, selective or distorted.
- *Interpretive validity* - the ability of the research to catch the meaning, interpretations, terms, intentions that data reveals
- *Theoretical validity* - the extent to which the research explains phenomena.
- *Generalisability* - the view that theory generated may be useful in understanding other similar situations
- *Evaluative validity* - the application of an evaluative framework, judgmental of that which is being researched, rather than a descriptive, explanatory or interpretative one.

Reflecting upon these five forms of validity, it is envisaged the research approach will allow for interpretive and theoretical validity whilst offering some degree of generalisability.

The process of ensuring reliability and validity is more difficult in qualitative studies with Anderson and Skaates (2005, p475) commenting:

“there is no single way of validating one’s qualitative research findings.”

To ensure the conclusions of this study can allow for some form of generalisability across the public sector, an evaluation framework developed by Lincoln and Guba (1985) will be adopted. This framework notes the importance of trustworthiness, credibility, transferability, dependability and confirmability when reviewing qualitative research.

The two case studies will provide an opportunity for direct replication and expand the possibility of verification. Strauss and Corbin (1998) suggest that as long as a rigorous evaluation process is in place, the process of comparing one piece of data to another and drawing conclusions from multiple viewpoints can allow generalisability, as long as a degree of skepticism is maintained and a systematic research process is followed.

4.6 Data Analysis

Collis and Hussey (2003) considers that analysing qualitative data presents a number of challenges, namely reducing the data, structuring the data, anticipating data reduction and detextualising data. Her work concludes that "the synthesis and reorganisation of data should lead to the development of themes and patterns which can be confronted by existing theories or used to construct new theories" (Collis and Hussey, 2003, p279).

In support of this statement, Yin (2003) explains that the overall aim of data analysis is to treat the evidence fairly, produce compelling analytical conclusions and rule out alternative interpretations. However, he further notes that the analysis of case study evidence is underdeveloped with few fixed formulas to guide the novice.

To aid the researcher, Yin further suggests the need for an initial general analysis strategy. As such, this study will analyse primary data against pre-established theoretical propositions. This involves analyzing data gathered against the theories and models discussed in the literature review. Yin (2003) considers such an approach frames the analysis process well and provides an organised structure to the case study.

In terms of specific analytical techniques, a process of explanation building has been adopted. This iterative process involves reviewing narrative and observational data against published theories and models in order to gain explanations of the phenomenon being studied.

Using the Explanation Building model developed by Yin (2003), as a basis for the analysis process, this study adopted the following four stages:

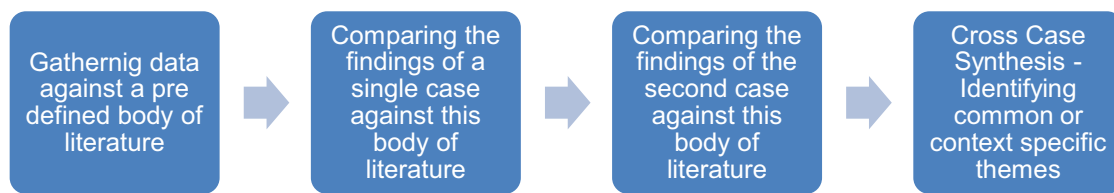


Figure 10 Explanation Building Model, Yin (2003)

To aid this data analysis process, template analysis was adopted. This involves a group of techniques designed to thematically organise and analyse textual data. (King, 2004)

As outlined by Strauss and Corbin (1998) and King (2004), analysis typically starts with the creation of priori codes. These codes identify themes strongly expected to be relevant to the study. Priori themes were created based on the academic literature which formed the initial conceptual framework. Additionally, the researchers' own experience and exploratory research was further used in shaping these initial codes.

From this stage, an initial review of interview transcripts and observation notes commenced. To begin the analysis of this data, segments that appeared to relate to the research objectives and priori codes were highlighted. From this early analysis process a further range of themes emerged as important. Such new themes allowed for further additions and revisions to the template.

The themes were ordered into four levels. This allowed for better structure to the analysis process. The four levels were:

1. Context
2. Learning
3. Physical Environment
4. Enablers and Barriers

Many themes emerged, often similar in nature, for example discussions relating to hierarchy and structure. As discussed by King (2003), this often makes analysis overwhelming. To further narrow the themes initially identified, transcripts were re-read on a number of occasions with an aim to better 'get to the heart of a participant's "story"' (King, 2004). Reviewing individual accounts on a number of occasions proved particularly valuable as it enabled similar themes to be grouped and a better understanding of the context in which stories were shaped to emerge.

The original research question and objectives were also regularly revisited. This enabled the researcher to disregard themes that were not of direct relevance.

Whilst many researchers promote the benefits of computer-assisted methods of template analysis (Gahan and Hannibal, 1999; Fielding and Lee, 1998; Straus and Corbin, 1998), Perry (1999) considers that realism researchers do not need to map all the details of an interviewee's subjective reality. As such they suggest manual forms of coding are more than adequate. In presenting the data, the three alternative methods suggested by King (2003), as follows, were considered:

<i>Individual case-studies, followed by a discussion of differences and similarities between cases.</i>
<i>Pros:</i> Gives the reader a good grasp of the perspectives of individual participants. Ensures that the discussion of themes does not become too abstracted from participants' accounts of their experience.
<i>Cons:</i> Tends to take up a considerable amount of space, so difficult to use where word limits are tight. The reader can get bogged down in all the individual detail and find it hard to see the wider picture.

<p><i>An account structured around the main themes identified, drawing illustrative examples from each transcript (or other text) as required.</i></p>
<p><i>Pros:</i> Good way to produce a clear and succinct overview of the most salient findings from the thematic analysis. Useful when word limits are tight.</p> <p><i>Cons:</i> Can encourage over-generalisation. Can lose sight of the individual experiences from which the themes are drawn.</p>
<p><i>A thematic presentation of the findings, with a small number of full case-studies to illustrate key themes.</i></p>
<p><i>Pros:</i> A useful synthesis of the previous two approaches.</p> <p><i>Cons:</i> Can be hard to decide on criteria on which to base selection of cases.</p>

Table 17 Summary of Data Presentation Methods, King (2003)

In line with the modified objectivist epistemology, the first and third methods were chosen, as it was considered this would provide the reader with a better understanding of the contextual issues that contributed to the success or barriers of learning within a WwW environment. The first method was adopted to analyse findings from employees, whilst the third method was used to analyse findings from observation and change agents.

To achieve such cross-case synthesis, word tables were created to identify common and context-specific themes which emerged from each participating organisation. This enabled the researcher to draw conclusions about the interventions and outcomes in each of the two case study organisations.

The aim of the data analysis process is to establish critical success factors and barriers to using workplace redesign as a driver of learning. Such analysis would lead to the development of a best practice model.

In conclusion, using Yin's (1994, 1997 and 1999) criteria for high quality case study analysis, the process has related data against relevant theoretical models and frameworks, identified rival interpretations where appropriate, remained focused upon the purpose of the study and allowed for the inclusion of the researchers' own expert knowledge.

4.7 Reflexivity

King (2003) highlights the importance of researcher reflexivity when undertaking qualitative research. As already alluded in the earlier part of this chapter, this requires reflection on the nature of the researcher's involvement in the research process, and the way this shapes its outcomes.

As a former public sector employee, consultant and someone currently involved in teaching public sector managers, the researcher holds a number of views and assumptions about the phenomenon under investigation. As such, consideration about how such views and assumptions could influence the way data was interpreted was important.

The researcher adopted a reflexive stance in the data analysis process. This involved the creation of a mini biography and a research journal. See appendix two for abstract from research journal.

The biography enabled the researcher to reflect upon his experience in order to better understand how this could influence data interpretation. Themes relating to power, control, and conducive learning environments emerged throughout this process.

The research journal further provided an opportunity to better understand how data was interpreted. This was a hand-written record of thoughts and feelings from both the data collection process and the subsequent creation and review of templates.

This process provided an opportunity to quality check the analysis process. Such an audit trail provided a clear rationale about the decisions being made by the researcher and how they shaped findings and conclusions.

4.8 Ethical Considerations

A range of action was taken to ensure research participants were not harmed as a result of involvement in this study. This took the form of receiving informed consent from both organisation and individual respondents, having truthfully informed them of the nature of the research, ensuring the respondents right to privacy and anonymity, and protecting them from any potential emotional harm. (See appendix two)

To ensure such ethical considerations, the conduct of this research was guided by the code of ethics of Northumbria University. The following five stages were followed:

1. Stage One – Gaining Organisational Consent

Written organisational consent was requested and received from senior management or their appointed representatives prior to commencement of the data gathering process. Organisational Consent was approved at the Business School's Research Ethics Committee.

2. Stage Two - Gaining Informed Consent

For those identified as potential interview respondents, individual Informed consent was achieved by sending a formal email prior to the interview. This provided a description of the research, its purpose and what is involved. In addition, the consequences of participating i.e. the possible outcomes, contributions and effects of the research are made explicit to the participant to assure them that the ultimate outcome is to promote their interest and well-being and it will not cause any harm.

3. Stage Three – Interview Preparation

Research proceeded following a positive response from the respondent. Additionally, prior to the beginning of each interview, the requirement for tape recording the interview was explained, the focus of the research topic reinstated and participants were made aware that their participation was voluntary and they were able to withdraw at any time.

Furthermore, confidentiality of interview discussions was assured and participants were informed of how data would be used, who would have access to the data collected, how the results of the research would be disseminated, and what would happen to the data upon completion of the research project

4. Stage Four – Ensuring Confidentiality

In ensuring confidentiality all research participants were assured that personal data would be concealed and made public only behind a shield of anonymity. In particular, pseudonyms would be used when reporting the findings.

5. Stage Five – Seeking Approval

Transcripts of all interview data were returned to participants for their written approval. Where necessary, adjustments were made and resent to participants for further approval.

4.9 Summary of Research Approach

This study aims to identify the critical success factors and barriers to learning following a process of workplace redesign.

Following a review of similar studies in this field it was concluded that a realist paradigm contained the assumptions inherent in a project which sought both serious engagement with employee's perceptions and the establishment of findings around the effectiveness of organizational interventions.

The use of multiple case studies as a form of methodology is also well established within the realist paradigm and allows the researcher to study a phenomenon in its natural state. Case studies are particularly appropriate in exploratory research, theory generation and examination of organisational phenomena.

Whilst it is accepted that this study provides a lack of generalisability, it is anticipated this research will provide increased understanding of the implementation of WwW as a driver of learning and provide similar public sector organisations with guidance for improved practice.

5.0 FINDINGS

This chapter aims to present research findings as a result of implementing the research methods identified in the Research Approach Chapter.

5.1 Summary of Findings

The primary objective of this study is to investigate the extent to which the WwW initiative can aid a public sector organisation in becoming a learning organisation, with a view to providing an informed and evidence based picture of this process. To achieve this, a research methodology based upon contextual observation and semi-structured interviews with organisational members and change agents in two public sector organisations were undertaken. This data has allowed the author to build two case studies detailing the approach to and perceptions of WwW and the subsequent impact upon achieving the characteristics of a learning organisation.

When discussing how to build contribution from case study research, Eisenhardt (1989) notes that an essential feature is comparison of emergent concepts with conflicting and similar literature. As such, the subsequent discussion of the findings in this chapter will present observation considering the range of theory outlined in the literature review.

The chapter presents two case studies, termed organisation one and organisation two. Each case study is structured in four sections. First is an anonymised profile of the organisation. This aims to provide the reader with a broad understanding of the context in which the organisation operates. Much of this data has been gathered through document research or from initial interviews with members of the senior management team.

The second section will present findings from the observation stage. In particular this will discuss the visible artifacts observed within the organisations and the researcher's interpretation of how such artefacts were being used.

Such observation data will be analysed in chapter six against the literature from Ward and Holtham (2000), Laing et al (1998), Duffy (1997, 1998) and Myerson and Ross (2003, 2006), Becker and Steele (1995), The Integrated Workspace (1998) and the founding principles of WwW.

The third section will present findings from semi-structured interviews with building users in relation to the extent to which new forms of workplace design are used. Short vignettes will be used to illustrate factors that assist and detract from the development of learning and innovation in these contexts. Given the context of this study and the philosophy of the learning organisation, many research participants articulated the importance of expressing their perceptions within the final thesis. Indeed, significant discussion emerged regarding the cultural shift in allowing a study of this nature which involved gathering the views of employees across the organisations, no matter of their place in the hierarchy.

As such it was considered essential to ensure the research participants voice was presented within the thesis. Whilst the data presented in this chapter is limited and chosen by the author to represent common themes, appendix six contains further quotes from participants which reflect the themes emerging from the research. In chapter six, such interview data will be analysed against the literature from Senge, (1994), Lassey (1998), Hitt (1995) and the founding principles of WwW.

The fourth section will focus upon findings relating to the change process adopted to facilitate the objectives of WwW. Summarising data obtained from semi-structured interviews with change agents, building users and document research, the purpose of this section is to identify different practices in order to identify particular approaches that have accelerated the cultural change process. Again, whilst the data presented in this section is chosen by the author to represent common themes, a more detailed presentation of findings can be found in appendix six. These findings will be analysed against the literature from Becker and Steele (1995), Fisher (2009) and Cummings and Worley (2009) in chapter six.

In line with the adopted critical realist paradigm, the overall aim of this analysis is to provide a window into reality, as interpreted by myself as researcher. This will allow for a subsequent discussion of factors that are seen to assist and detract from the goals of WwW, and development of a staged model to guide potential new supporters of WwW through the process of implementation.

5.2 Summary of Observation

5.2.1. Organisation One

5.2.1.1 *Entrance and Exit*

Whilst the building has a single entrance and reception area, this is predominantly used by the general public and visitors. Employees are able to use a range of entrances across the site, which provides more direct access to their functional areas.



Figure 11 Building Entrance

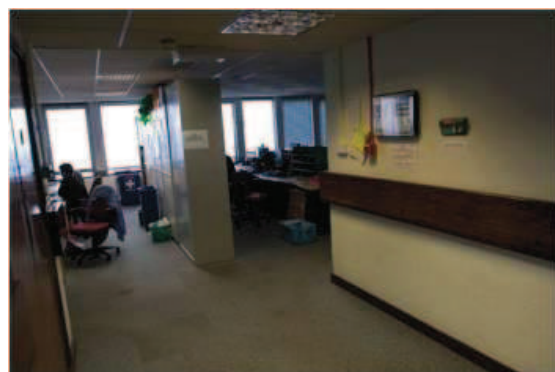


Figure 12 Typical Corridor

The reception area houses space for one/two reception or security staff and seating space for up to four visitors. Access to the main building is via a single, security controlled, door leading into three person width corridor housing offices and meeting rooms either side. Functional areas are housed in four towers. Central to these blocks is a newly built internal and external atrium area, which provides common social facilities including cafeteria, learning resource centre, gym, shopping facilities, toilet and shower area, common room and informal seating areas.

5.2.1.2 Common Space

The internal atrium areas have a distinct ambience, characterised by the use of bold colours, significant use of natural light, abstract artwork, a range of seating types and spaces (sofa, coffee table, meeting table etc), wide corridors with informal seating areas and a collection of facilities designed to encourage interaction such as the gym, occupational health suite, snooker room, common room and learning resource centre. These facilities are open as follows:

Sports and Social Shop	8am – 9.30am and 11.30am – 5pm
Fitness Centre	24 hours per day, 365 days per year
Snooker Room	24 hours per day, 365 days per year
Learning Resource Centre	24 hours per day, 365 days per year
Cafeteria	7am – 9am 12 noon – 2pm
Coffee Shop	7.30am – 4pm



Figure 13 Corridor and Atrium Space



Figure 14 Coffee Shop Space



Figure 15 Retail Space



Figure 16 Learning Resource Centre Space



Figure 17 Fitness Centre Space



Figure 18 Snooker Room Space

The restaurant-style cafeteria area provides a more formal eating space. Despite limited opening hours, the space was regularly used by employees on formal breaks ranging between 15 and 60 minutes. During several visits to this facility no-one was observed not consuming food or beverages and, with minor exception, there was no evidence of the area being used as project or meeting space. Users of the space typically arrived in pairs or groups and remained in these networks throughout the period of their stay.

The coffee-shop style cafeteria was used for a mix of purposes. Users of the area typically spent between 10 and 45 minutes using the space, with the vast majority consuming beverages. There was also a continual flow of customers purchasing food and beverage for consumption elsewhere. Users of this space typically arrived in pre-established networks although there was greater evidence of unplanned interaction.

The coffee-shop area was used for a variety of purposes, including short meetings with colleagues and visitors, individual concentration, and rest periods. There was clear evidence of the space being used for project working, indicated by sharing of papers, collective viewing of laptop PCs and group discussion.

The area adjacent to the coffee-shop acts as a community space. A wide corridor and exhibition area featuring further informal meeting space provided further opportunities for connectivity.

Frequent informal interaction was evident on each visit, encouraged by a range of community events, including charity sale, blood donor session, and wellbeing day. A full programme of community events are scheduled for this space.

Such activities provided greater opportunity for spontaneous interaction. There was further evidence that some spontaneous interaction within the community area was reinforced with a follow up visit to the coffee shop area.

The shopping facilities were well used, although the limited size and design of this space allowed for less social interaction.

An open resource area provides site users with a drop-in facility in which there are a range of self-study materials. There is also access to learning support personnel to provide advice and guidance on a range of learning opportunities available as part of the organisation's staff development scheme. Additionally the site offers a suite of open access personal computers. There is a range of seating options, including informal sofa areas and group space. Observation showed continual use of this space for a range of learning, group working and relaxation purposes. Open access PCs were being used on each visit for access to internet (typically during staff breaks), and for self learning packages such as IT skills development. A number of staff were engaged in individual self study and group space was being used on one occasion for team training led by a line manager.

The gym and snooker rooms also provide opportunity for social interaction. These areas were most popular before 9am, at 12 noon and 2pm and after 4pm.

Externally, the site provides a mix of hard and soft landscaping. A central quadrangle provides further space for social interaction. Weather permitting, this area proved particularly popular between 12 noon and 2pm with individuals and small groups congregating to eat lunch.

Outside of these times there was minimal evidence of use, although entry and exit points proved popular for building users to congregate for 5 or 10 minute break periods. Separate smoking shelters were provided external to the site. These were frequently used, typically by individuals or pairs for periods of less than ten minutes.



Figure 19 External Space



Figure 20 External Space

5.2.1.3 Office Space

Office space is divided into functional groupings. All spaces including layout, furniture and design for each grouping are identical with the exception of some areas occupied by directors and members of the senior management team.



Figure 21 Typical Office Space



Figure 22 Typical Office Resource and Break Out Space

The majority of employees are allocated 8sq metres of workspace. This consists of a fixed 1600mm double wave desk, three drawer pedestal, flat screen monitor fixed to a low level backboard. Further individual storage space in the form of a 1.5 metre cabinet and an additional personal locker is located away from the workstation.

Modesty boards have been removed to allow for improved aerial visibility and communication. The only exception to these conditions are for a number of Directors and Senior Managers who have retained individual working space.

Printing facilities are centrally located to reduce paper consumption and encourage interaction.

Clear desk and non-territorial working is adopted to differing degrees in all areas of the site. As such, employees (with the exception of some senior managers and directors) do not have exclusive access to a workstation and areas must be cleared each evening. Various methods of allocating space are adopted across the organisation, typically determined by departmental or section managers. Some sections operate a daily rotation, others, often in the same area, a weekly rotation, and other less frequently. Those adopting a less frequent rotation system are more likely to be within the executive teams. Allocation of workstations is most often determined by team leaders, although some areas have trialled a self-booking system.

There is limited evidence of personalisation, although some employees have photographs, or calendars. There is no artwork or other visual displays within the sections.

With the exception of some senior manager's and directors, single occupancy cellular offices have been removed from the site. Observation demonstrates mixed attitudes regarding location of managers workstations. In some areas, mainly operational, managers typically sit together, in other areas managers locate themselves with their teams.

Circulation space is limited with workstations presented in fixed rows. There is no provision of guest seating at individual workstations, although observation showed some transfer of chairs from break out or meeting areas to individual desks. This was most notable at workstations occupied by manager grades.

However, in addition to allocated workstations, there is provision of social and meeting space for every 60 employees.



Figure 23 Typical Meeting/Concentration Space



Figure 24 Typical Personal Storage Space

There are four meeting rooms of various sizes (one eight person, one six person, one four person and one two person). There are also a range of individual concentration spaces. Each meeting space is equipped with a network PC, presentation facilities and telephone.

Building guidelines suggest these are non bookable although local arrangements exist for how they are to be used. Observation suggests that meeting rooms are regularly used, typically for formal, pre-arranged meetings. This is characterised by provision of meeting room schedules and timetables widely used within sections. Some meeting rooms were also observed being used for individual working/concentration activity and storage.

The break out space is less formal with a mixture of soft chairs, low level tables and four person meeting/eating tables. There are kitchen facilities in each and refreshment vending machines. Observation suggests such space is used for a mixture of purposes. During the period from 12 noon until 2pm the space is typically used for food consumption and relaxation. Users spent an average of 20 to 30 minutes within these areas and activity tended to be social.

Whilst there was some evidence of pre arranged lunch meetings of two to four persons, the majority of lunchtime users arrived on their own and joined existing groups. There was some evidence of cross functional interaction during these periods.

Outside lunch periods, break-out areas were used for a mix of formal and informal interaction. Some sections used the space for team meetings and one-to-one or small group discussion. There was also evidence of wide use for refreshment breaks and some limited concentration space. Operational areas typically use the space for refreshment breaks, with a continual stream of personnel using the space for an average of ten to fifteen minutes. There was minor use of the space for meetings or work related discussion in operational areas.

In addition to these social areas, further common space include a central reprographics, print, fax and scanning vicinity for each 60 employees. This area was in continual use within each section, although often by the same users.

5.2.1.4 Wayfinding

Externally there was signage guiding to the main reception block, however, other staff entrances were unsigned. Internally, there was limited evidence of orienteering signage throughout the building, with the exception of lifts and block names (eg Block A, Block B etc). There was no signage directing building users to functional areas within blocks. Whilst the majority of building users appeared familiar with the building layout, there was evidence of some who required assistance. Furthermore, when the author sought direction to a variety of functional areas precise directions could not be given.

5.2.1.5 *Connectivity*

Each functional area is housed within its own block or division of a block. The choice of location was based on size requirements rather than potential synergy. On ground floor level two to three person width corridors provide access to functional areas, each of which are housed behind wooden doors with single pane window panels. On upper floors lifts and stairways provide direct access to individual functional areas, although access can also be made via the central atrium.

5.2.2 Organisation Two

Building A

5.2.2.1 *Entrance/Exit*

The external façade of this building is designed in an imposing monumental renaissance style, with an exaggerated scale and pilastered and pedimented wings. This presents a grand entrance often associated with public buildings from the early twentieth century.



Figure 25 External Facade



Figure 26 Reception and Communal Space

A single entrance provides access to the building (with the exception of emergency access points). Adopting a Guild design, the building houses four organisations, each of whom share a common concierge and reception area.

A floor to skyline atrium creates significant levels of natural light in the reception area, which houses a reception desk. This provides a distinctive arrival point. Surrounding the reception area is a range of soft seating for use by visitors and building users. The interior design is bright and bold and significant use of glass provides a sense of activity. At each observation the space was being used as a holding point for visitors and informal meetings with visitors.



Figure 27 Glass Atrium

The organisation is housed on floors three and four. Access is via two enclosed stairways and four lifts. Visitors are guided to the organisational reception area based on the fourth floor by a range of corporate signage.

This reception area offers an informal seating area able to house 12 persons. During the periods of observation, this seating space was being used as a holding point for visitors and informal meeting place. Adjacent to the reception area are three corridors leading to functional administrative areas housed around a central atrium.

Surrounding the atrium area on both floors is a range of common social facilities including cafeteria, informal seating areas, toilets and meeting rooms.



Figure 28 Typical Cafeteria/Social Space



Figure 29 Typical Break Out Space

5.2.2.2 *Common Space*

The social areas are located throughout the floors, characterised by a change in floor covering and use of wall furniture. There is a mix of seating types and spaces (sofa, coffee table, meeting table etc), and availability of refreshments.

These facilities are freely accessible and observation suggests, are used for a wide variety of purposes including concentration space, one-to-one meetings, visitor meetings and small team meetings.

The two coffee-shop style cafeteria areas were also used for a mix of purposes. Users of the area typically spent between 20 and 45 minutes using the space, although on each observation few were consuming food. Primarily the space was used for short coffee breaks with colleagues, or as an informal break out area for work-based discussion. Users of this space typically arrived in pre-established networks although there was some evidence of unplanned interaction.

There were a number of more formal meeting rooms available as open access throughout the two floors. There was no formal booking system for most rooms, although common practice involves informing reception when rooms are to be occupied. Meeting rooms hold between two and twelve people, with an additional boardroom for larger, more formal gatherings. Each meeting room is equipped with flipchart, PC, telephone, teleconference and video conference facilities.

Wide corridors featuring further informal meeting space provided further opportunities for spontaneous connectivity. Frequent informal, spontaneous interaction was evidenced on each visit.

There is no external interaction area, although observation suggests teams and cross teams often lunch together. Two local coffee shops and a local public house were popular venues.

5.2.2.3 Office Space

Office space is divided into functional groupings. All space including layout, furniture and design for each grouping are identical. Functional areas typically house between 20 and 36 persons.

All employees, no matter of grade or status are allocated 8sq metres of workspace. This consists of a fixed 1600mm double wave desk, three drawer pedestal, flat screen monitor, personal computer and 1.5 metre cabinet. Additional storage facilities are evident in some areas, depending upon functional needs.

Some personal storage space is also available for teleworkers. Modesty boards have been removed to allow for improved aerial visibility and communication.

There are additional group tables in each area to encourage informal team working.

Printing facilities are centrally located to reduce paper consumption and encourage interaction.

Whilst all employees who spend more than 80% of their time within the office have a permanent workspace, they are encouraged to use the space most appropriate to the task in hand. There are additionally a range of hot desks in each area. This is to provide space for any of the 600+ satellite office workers who are encouraged to spend time at head office. A 'warm desk policy' also exists and head office employees spending time away from their desks for a period of more than 24 hours are asked to clear their space to allow for visitor use.

There was significant evidence of workspace personalisation in the form of photographs, calendars, desk toys, childrens drawings etc.

Artwork is displayed throughout the building and some functional areas also display evidence of team activities such as birthday celebrations, overseas trips, social events etc.

There are no single occupancy cellular offices in the building and observation shows all managers, from chief executive down, locate themselves with their teams with no visible signs of hierarchy.

Circulation space within functional groups is limited in areas, although teams have been given some autonomy to site desks in a spatial arrangement that best suits their needs. There is limited provision of guest seating at individual workstations and observation showed transfer of chairs between desks as and when they were needed.

5.2.2.4 Wayfinding

From the external entrance there was orienteering signage directing visitors to the organisation's own reception area. Once in the functional areas there was no evidence of wayfinding signage.

5.2.2.5 Connectivity

Each functional area is housed directly adjacent to the atrium area and social space, therefore teams are clearly visible to all, although maintain some areas out of view, allowing concentration space. The choice of location was based on required co-working synergy. Corridors are three to four person width with further informal seating spaces throughout.

Building B

5.2.2.6. Entrance and Exit

This is a modern seven storey office building housed in a business district. Externally the facade is a mixture of glass and steel. The building is occupied by two key tenants from the public and private sector, of which the organisation has two floors.



Figure 30 Building Facade



Figure 31 Reception and Atrium

A single staff and visitor entrance provides access to a contemporary floor to ceiling atrium, which acts as a reception area. This space houses a water feature and significant meeting and informal seating space. A concierge service directs visitors to a separate reception area for the case study organisation.

Access to these two floors is via glass elevators or open stairways, which provide an unrestricted view of operations within the building. Furthermore, whilst internal walls are scarce, any physical boundaries are constructed from glass panels providing further transparency.

Visitors are guided to the organisational reception area by a range of corporate signage.

This reception area offers an informal seating area able to house up to 18 persons. During the periods of observation this seating space was being used as a holding point for visitors and informal meeting place. Adjacent to the reception area are three to four person wide corridors leading to functional administrative areas housed around the central atrium.

5.2.2.7. *Common Space*

A range of social space is provided throughout the building. This includes a coffee shop, cafeteria, gymnasium, project room and a range of meeting rooms to encourage sporadic interaction.

The Cafeteria provides an informal meeting space with a range of seating areas for both relaxation and small group discussion. Observation demonstrated this space being continually used for both employee break periods, consumption of lunch, and informal meetings with colleagues and visitors. Users of this space spent between 20 minutes and one hour in this environment.

Artwork, soft lighting and change of colour scheme differentiated this space from functional areas. There was also a staff notice board present with photographs of staff and social activities.

A smaller coffee-shop is also present within the site.

This space was originally designed for employees and visitors to access the internet, however, with internet being available on all desk personal computers and wireless connectivity throughout the building, observation shows this space has become a further informal break out area. The area is used continually for short one-to-one or small group meetings.



Figure 32 Typical Cafeteria/Social Space

A bookable project room further provides group space for team events. This room has adaptable furniture to allow for a range of layout configurations.

There are a further range of non bookable private meeting rooms. Some offer traditional table and chairs for up to eight persons, whilst others are more relaxed with sofa or soft seating. Observation of meeting rooms showed they were predominantly used for formal internal meetings or client engagement. Each meeting room is equipped with a flipchart, PC, telephone telephone conference and video conference facilities.

The social areas are characterised by a change in floor covering and use of wall furniture. There is a mix of seating types and spaces (sofa, coffee table, meeting table etc), and availability of refreshments.

These facilities are freely accessible and observation suggests are used for a wide variety of purposes including concentration space, one-to-one meetings, visitor meetings and small team meetings.

Wide corridors featuring further informal meeting space provided further opportunities for spontaneous connectivity. Areas housing communal printing and reprographics equipment were also generous in size and provide opportunity for informal spontaneous interaction.

Externally, a courtyard area provided further interaction area. This space was continually used as a refuge for smokers and occasionally for employees eating lunch.

Single occupancy study booths are also located throughout both floors, offering concentration space. Observation suggested these were scarcely used, with the exception of lunchtime when some employees moved away from their desks and used such booths as reading/relaxation space.

With eleven satellite offices, observation showed continual visits by outbased employees. A range of hot desk areas were provided throughout the two floors to ensure such colleagues could interact with their head office counterparts. However, to further allow group discussion, specific 'touchdown' areas were provided to provide space for up to four persons to meet. These spaces offer power and data points to enable access to personal computers, email, teleconference and internet. Observation suggests these spaces were well used although more frequently for short (30 minutes or less) face-to-face discussion rather than the use of technology.

5.2.2.8. Office Space

Office space is divided into functional groupings. All space including layout, furniture and design for each grouping are identical. Functional areas typically house between 18 and 40 persons.

All employees, no matter of grade or status are allocated 8sq metres of workspace. This consists of a fixed 1600mm double wave desk, three drawer pedestal, flat screen monitor, personal computer and 1.5 metre cabinet. Additional storage facilities are evident in some areas depending upon functional needs.

Some personal storage space is also available for teleworkers. Modesty boards have been removed to allow for improved aerial visibility and communication.

Additionally, a DECT telephone system allows calls to be made or received from any area of the building and across sites. Flat screen monitors, concealed PC base and wireless mice and keyboards further allow for less utilisation of desk space and greater flexibility in where building users locate themselves.

Within functional areas there were additional group tables to allow for informal team working.

For satellite office employees who spend less than 80% of their time within head office, a range of hot desk and hot office space is provided.

Hot desks are the same size as those occupied by full time members of staff and can be booked by any flexible worker. There are a number of hot desks within each functional area to ensure proximity to co-workers. Observation showed variances in hot desk use; however, subsequent scrutiny of booking records suggests regular occupation. Typically, users of hot desk space locate themselves within the building for one day, although some attend for longer periods.

In addition, 'hot offices', are provided in each functional area and are designed for periods when private or concentration space is required. These spaces could hold two or three persons, although observation showed they were typically occupied by single users. Further investigation suggests such spaces are more frequently occupied by permanent head office employees who need short periods of time for concentration. These spaces were more likely to be booked by managers within the organisation, although there were no patterns of continual use by specific individuals.

There was significant evidence of workspace personalisation in the form of photographs, calendars, desk toys, childrens drawings etc.

Circulation space within functional groups is limited in areas, although teams have been given some autonomy to site desks in a spatial arrangement which best suits their needs. There is limited provision of guest seating at individual workstations and observation showed transfer of chairs between desks as and when they were needed.

5.2.2.9. Wayfinding

From the external entrance there was orienteering signage directing visitors to the organisation's own reception area. Once in the functional areas there was no evidence of wayfinding signage.

5.2.2.10. Connectivity

Each functional area is housed directly adjacent to the atrium area and social space, therefore teams are clearly visible to all, although maintain some areas out of view, allowing concentration space. The choice of location was based on required co working synergy. Corridors are three to four person width with further informal seating spaces throughout.

5.3 Findings from Semi-structured Interviews with Building Users

5.3.1 Introduction

In order to address the overall purpose of this study and ascertain how public sector employees perceive the effects of changes to organisational aesthetics upon innovation, the following section presents findings from semi-structured interviews with building users.

Research participants were asked a series of questions influenced by learning organisation and workplace design literature in order to gain better insight into the extent to which WwW has created opportunities for learning or barriers that remain.

As discussed by Yin (2003) the data collection process resulted in significant amounts of data. As a result Huberman and Miles (1998) suggest this can lead to a lack of direction with regards to building theories from case study based research and data analysis strategies must be adopted to overcome such issues.

In order to further narrow the data gathered, a combination of the Explanation Building model developed by Yin (2003) and template analysis was adopted. As a result the following key themes emerged as areas for further analysis.

Theme	Respondent(s)	Associated Literature
How space is being used	C11, C13, C16, C17, C18, C19, C110, C111,	WwW (2003); Becker and Steele (1995); Becker (1995); Hitt (1995); Lassey (1998); Elsbach and Bechky (2007), Steele (1973); Bichard (2009); Minogue (2001), Osborne and Gaebler (1994); Godfrey (1994); Fry and Griswold (2003), Myerson and Ross (2006); Millet (1998); Senge (1994); Johnson (2005).
Environment	C14, C15, C17, C19, C21, C22, C23, C24, C27, C111.	Schein (1997); Storey and Quintas (2001); Fredrickson (2000); Groat and Canter (1979); Strati (1999); Dean (1977); Hundert and Greenfield (1969); Clearwater (1980); Sundstrom (1986); Moss Kanter (1990); Giddens (1984); Pfeffer (1982); Becker and Steele (1995); Becker (1981); Keller and Holland (1983); Clegg (1990); Reschentaler and Thompson (1998); Rossiter (2007); Senge (1994); Tannembaum and Schmidt (1973); Hitt (1995); Lassey (1998); Carnevale (1992); Du Plessis, Du Plessis and Millett (1999); Legge (1995); Bichard (2009); Godfrey (2000); Szllagi and Holland (1980); Keller and Holland (1983) and Van der Voortd (2004).
Hierarchy	C11, C12, C15, C16, C22, C23, C24, C25.	McCourt and Minogue (2001); Greener (2009); Bovaird and Loffler (2009); Peterson (2009); Bichard (2009); Greener (2009); Reschentaler and Thompson (1999); Legge (1995); Senge (1994); Fry and Griswold (2003); Wallace (1998); Applebaum and Batt (1994); Sennett (2006); Lassey (1998) and Rossiter (2007).

Theme	Respondent(s)	Associated Literature
Purpose and Vision	C12, C14, C16, C17, C19, C24 C26, C27, C28, C110.	Rossiter (2007); Millett (1998); Clegg (1990); Moran and Ghoshal (1996); Elkjaer (1999); Richter (1998); Hitt (1995); Senge (1994); Bichard (2009); Godfrey (1994); Bradley and Parker (2002); Senge (1992); Fry and Griswold (2003); Bennington (2000); Juran (1993), Miller (1984); Collis and Porras (1996); Cummings and Worley (2009); Shiba (1993); Nahapret and Ghoshal (1998); Tsai (2001); Hitt (1995); Lassey (1998); and Albury (2005).
Induction	C13, C15, C16, C23, C110	Shiba (1993); Becker and Steele (1995); Cummings and Worley (2009); Nahapret and Ghoshal (1998); Tsai (2001) and Senge (1994).
Pilot Office	C11, C13, C14, C17, C18, C19, C21, C24, C25, C26, C110, C111.	Becker and Steele (1995); Fisher (2009); Clegg (1999); Gill (1998); Brookes and Kaplan (1972); Osborne and Gaebler (1994); and Godfrey (1994).
Participation	C11, C13, C14, C15, C17, C18, C19, C21, C23, C25, C110.	Clegg (1990); Senge (1994); Rossiter (2007); Lassey (1998); Hitt (1995); Alavi and Leider (2001); Gill (1995); Millett (1998); Moran and Ghoshal (1996); Burns and Stalker (1961); Du Plessis, Du Plessis and Millett (1999); Rose (1999); Ceserani (2004); Bichard (2009); Osborne and Gaebler (1994); Godfrey (1994); Fry and Griswold (2003); Legge (1995); Sennett (1998); Cummings and Worley (2009); Wallace (1998) and Applebaum and Batt (1994).
Leadership	C12, C13, C14, C15, C16, C19, C22, C24, C25, C26, C27, C28, C110, C111.	Lassey (1998); Hitt (1995); Wallace (1998); Applebaum and Batt (1994); Covey (1992); Gill (1998); Dean (1977); Resenthaler and Thompson (1998); Millett (1998); Beetham (1987); Bichard (2009); Minogue (2001); Osborne and Gaebler (1994); Godfrey (1994); Fry and Griswold (2003); Rossiter (2007); Clegg (1990); Weeks (1980); Richter (1998); Elkjaer (1999); Senge (1994); Brown and Eisenhardt (1997); Kotter and Schlesinger (1979); Dent and Goldberg (1999); Kotter (1994); Cummings and Worley (2009); Vos and Van der Voordt (2002), Palmer and Richards (2000), Szilagyi and Holland (1980); Becker (1981) and Keller and Holland (1983).

Theme	Respondent(s)	Associated Literature
Communications	C12, C14, C16, C18, C19, C21, C22, C23, C24, C25, C27, C110.	Elrich and Bichard (2008); Senge (1994); Becker (1995); Dean (1977), Hundert and Greenfield (1969), Clearwater (1980), Sundstrom (1986); Brennan and Chugh (2002), Ward and Holtham (2000); Becker (1981); Szllagy and Holland (1980); Keller and Holland (1983); Lassey (1998); Becker and Steele (1995) Steele (1973); Duffy (1997); Godfrey (1994); Davis (1984); Brookes and Kaplan (1972); Clegg (1999); Weekes (1980); Sennett (1998); Campbell (1988); Fry and Griswold (2003); Richter (1998); Elkjaer (1999), Hynd (2003); Mawson (2003), Legge (1995), Osborne and Gaebler (1994) and Cummings and Worley (2009).
Creativity	C11, C12, C15, C16, C21, C23, C24, C25, C26, C110, C111.	Peterson (2009); Piore and Sable (1984); Albury (2003); Altshuler and Zegans (1997); Minogue (2001); Rose (1999); Bos and Wilmot (2001); Ceserani (2004); Greener (2009); Campbell (1988); Gill (1998); Lassey (1994); Lassey (1998); Hitt (1995); Senge (1994); Kanter (1989); Peters and Waterman (1982); Hancock and Tyler (2001) and Bichard (2009).
Performance Measurement	C11, C13, C16, C18, C24, C110.	Bichard (2009); Minogue (2001); Osborne and Gaebler (1994); Godfrey (1994) and Fry and Griswold (2003).
Access to Social Space	C12, C15, C16	Wicker (1979) and Clegg (1990)
Standardisation	C17	Tenkasi, Mohrman and Mohrman (1998) and Cummings and Worley (2009)
Leadership Style	C23, C27, C28, C110, C110	Becker and Steele (1995); Fisher (2009); Du Plessis, Du Plessis and Millett (1999); Millett (1998); and Weekes (1980).
Public Sector Context	C26, C28	Keep and Rainbird (2000); Huws (1996); Clegg (1990), Thompson and Warhurst (1998); Becker and Steele (1995); Hitt (1995); Lassey (1998); Gill (1998), and Fenwick and McMillan (2010).
Noise and Concentration	C22	Hundert and Greenfield (1969); Brookes and Kaplan (1972); Dean (1977); Clearwater (1980); and Sundstrom (1986).

Theme	Respondent(s)	Associated Literature
Non Territorial Working and Clear Desk Policy	C12, C13, C15, C17, C18, C19, C24, C26, C110, C111	Myerson and Ross (2003); Van der Voordt (2004); Cummings and Worley (2009); Elsbach and Bechky (2007); Senge (1994); Rossiter (2007); Fry and Griswold (2003); Lassey (1998); Hitt (1995); Haynes (1980); Brookes and Kaplan (1972); Davis (1984); Becker and Steele (1995); Tenkasi, Mohrman and Mohrman (1998); Hundert and Greenfield (1969); Armenakis, Harris and Mosshoulder (1993) and Bichard (2009).
Boundaries	C11, C12, C14, C16, C18, C23, C25, C27, C28, C111,	Becker and Steele (1995); Schein (1988); Lassey (1998); Hitt (1995); Richter (1998); Elkjaer (1999); Millett (1998); Senge (1997); Senge (1999); McAuley et al (2007); Keller and Holland (1983); Elsbach and Bechky (2007); Godfrey (1994); Fry and Griswold (1999); Beetham (1987); Clegg (1990); Storey and Quintas (2001); Fredrickson (2000); Groat and Canter (1979); Strati (1999) and Peterson (2009).

Table 18: Summary of key themes to emerge from data analysis process

5.3.2 How Space is Being Used

Models by Becker and Steele (1995) and The Integrated Workspace (1998), on which WwW was based, call for workspace that encourages flexibility and collaboration, satisfies individuals' needs for personal comfort and that enhances learning and knowledge. Becker (1995) particularly cited twelve guiding principles of the new-look public sector workspace.

Organisation One

It's far easier to meet with people now because there are so many different places you can go. You used to have to meet people at your desk which wasn't ideal...now we have the soft seating areas, meeting rooms, coffee shop, and lots of corners you can hijack for quick meeting C16 (a)

the site has a different ambience since NTW...its more open, brighter and there is certainly more encouragement to use different areas such as the coffee shop area. C16 (b)

the team area is well used...its always busy at lunchtime although that's the only time we really let people eat hot food in it, the rest of the time it is a great place to have a meeting or just get away from your desk to read something or the like. C18 (c)

there are often charity events or blood donor sessions in the resource area...so people pop along and see what's on...it's the heart of the community. C111 (d)

we have an occasional meeting in the break out area; otherwise it's normally scheduled for rest periods. C13 (e)

I know you are not really supposed to but I often use the meeting room to get my work done...it also gives the girls a break from me breathing over them (laughs). C110 (f)

Organisation Two

you are never far from some break out area and we are definitely encouraged to use them. I remember when you would have to explain exactly why you were leaving your desk...now your desk is a base and as long as you get your work done there are no questions asked. C25 (g)

there was a distinctive change in the new buildings....they are much brighter and relaxed...when I first walked in it reminded me of those offices in the American movies where they are standing by the coffee machine chatting or playing table football whilst clinching a deal...not that we have table football mind...but there is that work and play type culture. It's so different to what we had before...no one ever really talked with one another....that was what our new building was designed to encourage. C28 (h)

5.3.3 Environment

Schein (1997), Storey and Quintas (2001), Fredrickson (2000), Groat and Canter (1979) and Strati (1999) all suggest that artifacts within the physical environment provide an immediate indication of an organisation's culture and can identify immediate issues and blockages.

Common themes that emerged when discussing building user perceptions of the new working environment included the need for privacy and concentration, (Dean,1977;

Hundert and Greenfield, 1969; Clearwater, 1980; and Sundstrom 1986), impact of hierarchy, (Moss Kanter, 1990), power and control, (Giddens, 1984; Pfeffer, 1982), impact of design, (Becker and Steele, 1995), relaxation, (Becker and Steele, 1995) and socialisation, (Becker, 1981; Keller and Holland, 1983).

Organisation One

To me personally, when they mentioned non territorial working I didn't mind so much, I like talking to people and moving around the office allowed that. As AO though, I do need privacy and there isn't much private space.... The higher ups have more private space mind. My own little environment is fine. C14 (i)

the place is much nicer, you know bright and spacious, the break-out areas are good to get away from our desks. Where we arrive in the morning, sit down and key all day...its good to get away from that and maybe come to the coffee shop or sit in the quad. C15 (j)

The new offices are much better than what we had before and we are much closer to our managers. The space says teamwork to me. C18 (k)

I work with five teams on our floor and we now have a break out area. We regularly meet in the rest areas at break times, you are always being introduced to new people...it's a good idea. C14 (l)

Organisation Two

it is great, bright, vibrant and busy. You do sometimes have to switch off from it all, but there is always quiet space if you need it. C26 (m)

the office is very welcoming, from when you first walk through the door, it's bright, airy and filled with noise...yes its work but it makes me want to just get stuck in. C23 (n)

It's all very open both in terms of space and transparency. I wouldn't say we all know who each other is or what we all do, but we have a good idea. I think the layout has enabled that. C27 (o)

I am very proud to say I work at XX...I know people look in the building and like it. When I first came for my interview I knew I wanted to work here. It is very friendly. C22 (p)

5.3.4 Hierarchy

Writers including McCourt and Minouge (2001), Greener (2009), Bovaird and Loffler (2009), and Peterson (2009) each discuss the need for changes to hierarchical arrangements in order to facilitate learning and innovation. Bichard (2009) particularly suggests public sector organisations must revisit structures to encourage new ways of working.

Organisation One

we adhere to the ruling that we've got managers and senior managers, its just our managers now sit with us, they could anywhere across our floor. That is new to us and I don't think they like it too much. We never see the senior managers, they have their own suite, and I've been here since 1975 and don't think I have ever seen them. C11 (q)

we all have a role to fulfill...I have to look after a group of girls, and you know what girls are like, they will chat all day, argue, then not speak to each other...you have to manage that. It's better now that I am sitting with them because I can keep a closer eye on them. It all seems to be OK. C16 (r)

Organisation Two

We have a hierarchy, we have to, I wouldn't want to work somewhere where you didn't know where you fit....the hierarchy is just looser. I think most of us feel very comfortable speaking with the Chief Executive or one of the senior managers, its just normal. I think people who come in from other agencies find it strange at first but you get used to it. It is different from the past, we used to be very traditional...you never saw the senior team, now they are in the same office as me. C23 (s)

I feel recognised as an individual more than I ever did before. C22 (t)

5.4.5 Purpose and Vision

Rossiter (2007) and Millett (1998) note the importance of continually sharing the vision of the organisation with all members. This should begin when attempting to create a learning structure. Clegg (1990) terms this 'clear articulation of mission and goals' and highlight the need for this to take a democratic form. Similarly, Moran and Ghoshal (1996), Elkjaer (1999) and Richter (1998) each discuss the need for senior managers to make everyone aware of the purpose of cultural change and create conditions in order to facilitate such new ways of working. Hitt (1995) further discusses the need for all staff to be continually updated upon the organisation's purpose and vision, moving away from the top down approach commonly adopted in bureaucratic organisations. Senge (1994) terms this Shared Vision.

Organisation One

we were briefed a few months before NTW was implemented. I think it's mainly about cost savings but we also talked about changing the command and control style of management. C19 (u)

everyone has targets, ours are number of inputs per day, we sometime look at keystrokes too. C16 (v)

yes we were told about what NTW was and why we were adopting it. There was a project team who came into each section and talked about what it would mean to us. We also had our own people who were on the working group. Everyone was talking about it and I guess we could get involved if we wanted to....the purpose was about saving money. C12 (w)

Em well there was a lot of meetings you know a lot of communication meetings explaining what was going to happen and you could visit the site...our manager talked a lot about changing the culture, making it less of a paper chase and more around working together. C14 (x)

Organisation Two

We are a front line service, continually under pressure to perform. Our public undoubtedly look for faults in us...making sure we are not wasting their money. New Ways of Working has enabled us to improve what we do...get out of our silo mentality and collaborate. This idea came from our Chief Executive...he came from the private sector and had seen it work....he was right. C28 (y)

The purpose and vision of our new ways of working came from the top...from our then Chief Executive. He discussed our role of being responsive, and changing to meet the needs of our customers. This requires us to do things differently...better and more inclusive. C24 (z)

5.4.6 Induction

Additionally, Shiba (1993) discusses the importance of individual development for both existing and new employees when attempting to embed a particular set of values and culture. Becker and Steele (1995) additionally cite the need for education and training when implementing any workplace strategy.

Organisation One

we didn't have a specific induction for the introduction of NTW although there was information on the intranet and a project worker assigned to each section to help with the transition...they advised on things like how to book space, where different facilities were, gave tours of the building, how to log onto different PCs etc. There is still a helpdesk. C16 (a1)

we had someone to help us relocate. This was important as my login didn't work properly and I need a footrest. C15 (b1)

Organisation Two

I joined the company in 2004. Prior to this I had worked for another government department. It was far more formal, I mean you couldn't blow your nose without asking for permission. You had your own desk, set break times, a fixed routine. When I came here it was completely different. My manager talked about the culture on my first day, it was about being flexible, responsive. This was repeated at my induction, we were even told how to use the building more effectively. I also spent time in different sections getting to know what they did. I had to make changes to the way I worked...I had never had so much freedom, but it was a fantastic way to get to know the organisation and the people within it. I must have met and worked with over 60 people in my first few days. C23 (c1)

5.4.7 Pilot Office

Becker and Steele (1995) discuss the need to familiarise members with the new workplace environment. They suggest this should form an element of the design stage encouraging involvement and idea generation. Fisher (2009) particularly notes the need to reflect beyond the physical layout and encourage members of the pilot to embrace new experiences such as open communication, teamworking and flexibility.

Organisation One

we had a pilot office. About 60 of our people spent time in it...they were volunteers. It wasn't quite right...we made a number of changes based on their feedback. There were lots of issues about IT, size of desks, height of desks, light, and temperature. Others were concerned about the length of time it took to set up and clear workspace. Connecting to the network took a long time too as the PC had to recognize your profile. C18 (d1)

“was there a pilot office?.” C11 (e1)

Organisation Two

The pilot office taught us how to work in the new environment...it was as though we had to try everything...not just working away from our usual desks, but new forms of team meeting, greater contact with our managers, identifying new ideas and ways of working, it was a very well thought out way of gaining our buy in to the new design. C25 (f1)

I went to the briefings, read the philosophy and spent time in the pilot office with my team. It was all very nice and idealist. I am here to manage a team and meet targets. There is much more communication now and I suppose that is good, but there is also an expectation we involve everyone in everything...it is not necessary. I take more work home with me than I ever used to. C26 (g1)

In the pilot office we mixed teams..people could pretty much sit where they liked. I don't think that worked as you have to be with people who can help you with what you are doing. I think we were forced to move around too much in that space. Luckily we are now in functional teams but still are able to move around when needed. C26 (h1)

5.3.8 Participation

Participants were invited to discuss the extent to which they are encouraged to participate in decision making and idea generation post WwW.

Clegg (1990) considers greater democratic forms of power and less reliance on command and control management is a key feature of the postmodern organisation.

Furthermore, Senge (1994) suggests a key element of personal mastery is the ability for employees to participate in a range of activities and work across boundaries. Senge (1994) further considers that team learning can occur when new working methods are adopted.

Rossiter (2007) considers that a postmodern organisation will be characterised by greater collective exploration of complex issues, whilst Sullivan (2005) cites the evidence of increased communication between managers and staff. A summary of postmodern models of management suggests that high level of member participation and empowerment, strong internal networks, opportunities for flexible working and risk taking will be encouraged.

Organisation One

we were always kept apart from the doctors...they had their own offices. We had to call them doctor or Mr., it was very formal. We had to see them every day for our jobs but I wouldn't say we ever really knew them. Sometimes we could see problems with the system but it wasn't easy to put forward your ideas when you didn't know how they would react. We had to put our ideas through our manager. With NTW we all work together in one office and we move desks so we get to know each other informally. This has really improved our relationship and we share so much more, we are a much closer knit team. C13 (i1)

we are working much better with other teams now and that's because we are working in the same space as them..we see much more of people we never knew existed before. C14 (j1)

I wouldn't say anything has changed...we probably see more of each other...but as for decisions and improvements they are still made by managers. I don't suggest anything anymore...just keep my head down. C15 (k1)

There isn't really time for mulling things over, we have our performance indicators to meet and that's about it really. We don't really have any power over what we do so work is very much a routine, you get told what to do and that is it. C15 (l1)

I don't actually want any more work to do thank you very much. C11 (m1)

We really came together in planning the move..we visited the new office, had a tour of the building, put forward our concerns. It's probably the closest we have ever worked with our managers and it was good. Its now back to normal. I certainly miss being part of the shaping process, but work just takes over really. C16 (n1)

Organisation Two

the new office layout has encouraged relationships to develop, we work much more with others in and outside of our team, for example I am working in a procurement bid team at the moment, that would have normally been completed by one or two people on their own...things like this are a great improvement. C25 (o1)

the whole place is more open minded to new ideas, I think that's because we know each other better..we feel more comfortable to put forward our views..the design has enabled this in my opinion. C23 (p1)

5.3.9 Leadership

Learning Organisation models developed by Lassey (1998) and Hitt (1995) each suggest a need to change approaches to management and leadership, particularly moving away from command and control style to one of coaching and mentoring. Wallace (1998) and Applebaum and Batt (1994) consider that this can be characterised by greater evidence of management/subordinate networks and collaboration.

Organisation One

I feel much closer to my manager now and that's because I actually sit closer to her, before she was at the other end of the office in her own space. It's strange, you seem to have a different relationship with your manager when they work alongside you...there is still respect, yeah, but its more social too, we talk more about non-work stuff and work stuff that I never really knew about before. C14 (q1)

although we are all in one place now I haven't noticed any difference. My manager doesn't agree with NTW and sits at the same desk everyday...he doesn't really want us to move around either but it has to be done doesn't it? C13 (r1)

I know NTW is meant to get everyone working closer together but it doesn't really work in practice...we come in and do our work...I don't think it would be well received if we were chatting all day long. I don't really have much to do with my manager, as long as we hit our targets he is happy. C15 (s1)

I manage in the contact centre...everyone is doing the same work day in day out so your job is really to make sure our targets are met. I think you are sometimes seen as a monster but if there is a backlog of work it's the managers who will get the blame...we could make changes but if they don't work it's me who would take the stick. C110 (t1)

it's a nightmare...I have to schedule the seating allocation on a weekly basis and it drives me mad. You know some girls don't get on so you have to keep them apart and others will chat all day. Also some want different keyboards and the like...then it's scheduling their breaks...they often want to have breaks with different people each day...I'm spending more time on this than anything else at the moment. C16 (u1)

I think you have to change the way you manage...there is more activity now..more space for people to work and a lot more movement around the building. Before you knew where everyone was and what they were doing, you still need to make sure things get done but trust people more, allow more freedom. C19 (v1)

as a manager I see the opportunities of NTW. It has brought about new opportunities for working in different ways...building better relationships and more independence but its so different to what we're use too...I would suggest all managers need some form of training in how to get the best out of NTW. C19 (w1)

Organisation Two

We call it 'freedom with focus'. The leader's role is to set the tone of what is expected...we agree that as a team, or sometimes it is set for us. After that I believe individuals should have the freedom to work towards their goals how they wish. We all trust each other and as a result we deliver. C26 (x1)

It's not only the office layout that has led to improvements, it's the leadership style; the new Chief Executive changed the way the place operates and that was cascaded down to all of us...yes the place looks better and we are able to work together more, but it's because the culture allows us to. C28 (y1)

I must admit I didn't welcome the idea of losing my office, but it was about adapting and encouraging team work. I still have my own space and people around me so nothing really has changed. I guess it is OK. C27 (z1)

There is much greater trust in the new environment...much more empowerment and individual working. Coming from local government this was very new to me. There are far more discussions between all members of staff and we are sharing information all of the time. These new ways of working were all part of the transition process. I would imagine some would feel a loss of power but I don't see it that way.... people are still managed, just in a different way. C24 (a2)

I sit alongside my director. The relationship is considerably more relaxed than before. We talk to each other and I think we all feel very valued because she genuinely wants us to contribute. We take a much bigger role in planning and strategy than before. There is also less meetings because we work together every day. C22 (b2)

5.3.10 Communications

One of the key objectives of WwW was the encouragement of openness, communication and collaboration. Erlich and Bichard (2008) cite such workplace communication as a driver of new knowledge, facilitating team learning (Senge, 1994).

Becker (1995) suggests that this can be achieved through the encouragement of informal contact, making socialisation a requirement and better integration of managers and subordinates. However, writers including Dean (1977), Hundert and Greenfield, (1969), Clearwater (1980) and Sundstrom (1986) highlight issues relating to concentration, privacy and confidentiality. The following findings suggest a wide range of perceptions with regards to communication and its associated areas.

Organisation One

the office is generally noisier than it used to be but that's because there is less privacy, like single offices and panels between areas...I find it hard to concentrate some days, normally depending on who is sitting next to you..I am really surprised on how hard some people key. You do get to know what is going on more because there is more conversations going on...and we talk more between sections which is good. It's also because there is probably less chat. C16 (c3)

oh the questions...I'll be asked where I have been when I go back from this...I'll just say management stuff. I would say there is much more communication between managers and their teams, you see, you are more part of the group and so you share much more. It's often good because they can help solve problems but I still think there needs to be a distance because you are their manager. C110 (d3)

I think communication between teams is much stronger, simply because there is more space to talk and share information with. We have weekly team meetings now and you are not just communicating with the person who sits next to you...because we are rotating seats we work with lots of different people. There is a lot more communication with our manager too. She doesn't always sit with us but most of the time she does and of course we talk. C18 (e3)

there is much more communication around the site now...some of it is gossip mind...like coffee-shop chat...but you do find out what is going on. C16 (f3)

Organisation Two

we all know each other much better and that has led to improvements in what we do. I certainly have a better understanding of other people's roles and feel I can suggest things to them to hopefully help and improve things and vice versa. Only yesterday I was trying to work something out and I never thought of using web conferencing, but a colleague who I would have never normally worked with suggested I did it the way she did....it was common sense...but things like that only happen because we are talking and working together more instead of being hidden away. C24 (g3)

I communicate much better with my manager now...he sits three desks away from me so I suppose we have to. The whole organisation has always been very friendly, we always knew everyone, but management was still management, you thought before you spoke and remembered your position. I personally don't think that happens now. This has been aided by the office layout, but I think it is more than that, management styles have changed. I know much investment has been made in staff development...this too has certainly had an impact. C22 (h3)

I sometimes think there is too much communication, most of which has got nothing to do with me or my job. There is this notion that we can direct the 'direction of travel' but that is not my job, it's not what I am paid to do. C25 (i3)

The communication is very good. They have invested in ICT in a big way so wherever you are working you know what is going on...some of it is pointless mind...you know things that have got nothing to do with you. C24 (j3)

The place is so open and dynamic. If we have a problem we work with others to solve it. This generally means moving away from our desk and that is fine. I have made so many friends that way, and now I pretty much know everyone and know exactly where to go if I need help. C22 (k3)

The new environment has definitely improved access to each other and enhanced potential for communication, although that does not mean to say everyone has embraced it...my team leader is a little like that; I guess they are fearful of change and prefer as little originality as possible. You feel the difference in our team. It is often far quieter and more hierarchical. C25 (I3)

5.3.11 Creativity

The Modernising Government White Paper (1999) called for public sector organisations to encourage innovation and idea-generation from employees. This is a key tenet of both WwW and the Learning Organisation. Writers including Peterson (2009), Piore and Sable (1984), Albury (2003) and Altshuler and Zegans (1997) particularly note the need for organisations to create conditions for innovation and knowledge sharing.

Organisation One

it's not really our job to be creative, you really are just following a process. C15 (m3)

I would say it depends on where you work and who you work with. I have been in three sections and was also on the NTW change team...some of the work in this place is very routine so there is little opportunity to change things..it's all prescribed. C110 (n3)

Some managers don't really want their staff changing things too much either...you know if it isn't broke don't try to mend it. Other teams really want to improve things and modernize what we do...for them they might have suggestion schemes or seek the opinions of colleagues more readily. On the change over to NTW, we saw some managers be really reluctant to encourage their colleagues to get involved whereas others were just the opposite. That mentality then transfers into their daily routine. C111 (o3)

you would not believe the ideas we have had from the team. I was really embarrassed that we hadn't been asked in the past...but you just didn't. My manager never asked me for any ideas...and I've been here 17 years. We started having team meetings in the break space and people just throw in ideas...things like how to speed up our processes, or allocate work...once you start, you realize how many things we could have been doing better. C111 (p3)

Organisation Two

we are certainly encouraged to be creative in our jobs and the way we do things. I think the cost-saving drives have encouraged this further. If you come up with a new idea you are certainly recognized for it, which is great, especially if you find a way of saving money. C24 (q3)

it is sometimes difficult when new ideas are not adopted. We are told to suggest new ideas but I don't think our manager always listens...I've known some people to get quite stroppy and upset about this. C24 (r3)

there is this view that we should be creative and look at better ways to deliver what we do but that isn't what I am paid for. When I am on a management grade I will make decisions, in the meantime I will do what I am told...that sounds real negative but it's why we have different pay grades. C25 (s3)

5.3.12 Issues

Throughout the interview process a number of common themes emerged which identified the key barriers to creating an environment of learning. These are illustrated as follows:

Organisation One

the volume of work has increased significantly..most days I don't have a lunch and rarely have a break. C13 (t3)

don't misunderstand me...it's a great place to work, but it is like a conveyor belt...you aren't really paid to think too much. C11 (u3)

you are being watched most of the time. C13 (v3)

it's difficult to give lots of freedom as we have so much work to do...you give the girls their breaks and that's it really. C16 (w3)

we try to encourage our team to come up with new ideas but there are often barriers further up the line. You then have to go back and say it was a good idea but. C18 (x3)

you are governed by targets and KPI's so much now it dictates what you do C110 (y3)

it is good to have the different areas, but more often than not the comfy space is being used by people having a break or lunch and the rooms are being used for meetings..so you stay at your desk. (when asked about other areas) Oh we are not really supposed to leave our offices unless it's lunch time or a break time. C15 (z3)

we started having meetings in the coffee shop and that was much better, although it is quite expensive and can be noisy. C16 (a4)

the main social areas are some distance from us so we don't really use them. C12 (b4)

our manager expects us to clear our desk when we are not at our desks...like at a meeting...it takes so long...it's easier just to stay at your desk. C13 (c4)

there are so many different interpretations of NTW in this place it probably has caused divides. Some areas rotate desks daily, others weekly, some rarely. Some have fixed breaks and others can come and go as they please...some areas have just gone back to their old habits...it can be very frustrating. C17 (d4)

Some managers just want to hold onto their empire really and I can see why...they have worked for it, but you have to change C111 (e4)

I see what can be done, like managing less and allowing your team to do more on their own and I think I should be doing that but you go back to your tried and tested ways, because you know they work. C110 (f4)

more should be done to prepare the managers for NTW...it was a case of there you go, get on with it. C110 (g4)

Organisation Two

The fact that we were part of the design process helped, I think we accepted the idea because of that. C27 (h4)

the chief executive was passionate about the new design...he really sold it to us..it really was the new dawn for us. C28 (i4)

We were involved in their design from start to finish. C23 (j4)

Everyone was encouraged to have a say about how the place should look and feel. We were given a brief about what was trying to be achieved...this idea of continuous improvement. I suggested large team tables where we could brainstorm...and we got them. I don't think many requests were refused, although we could do with more meeting rooms. Maybe because we were heard we became committed to what was trying to be achieved? C28 (k4)

we had training days, team meetings, visits to the new space and a sort of social event..we were very well prepared. I would say the transition was seamless. C22 (l4)

The nature of our job requires us to work with different people around the organisation, our environment allows us to do this much more than before...I use a variety of work settings and often cannot be found at my desk...no one seems to worry..and things appear to be better than before. When I say better, I mean more effective, we seem to perform better...and the place is more informal. Before you had your job and that was it, day in day out, now we work more as a team, although sometimes it can get stressful, particularly when lots of people want a piece of you. Others often work at home if they need to concentrate, I can't; I become bored and get easily distracted. C28 (m4)

I know what the idea behind open plan working is but the reality is different. We are so busy now many of the opportunities for social interaction have diminished. I rarely move away from my desk. C25 (n4)

Performance indicators have damaged the opportunity for innovation. There is much more rigidity now. We still look to improve and make a case for new ways of working, but not as much as in the past. Everything has to be accounted for. C24 (o4)

A discussion emerged with regards to the induction procedures for new personnel, which highlighted the following comments:

the induction was lengthy...it's not just a one day thing...you spend time in different sections and they want you to get a better understanding of the whole organisation.... they talked about us all being part of the XXX family....they wanted our ideas...our ideas for improvement...it's very different for me...very new...and if I were to be honest, I came here to do a particular job not become involved in everyone else's....this place is very different to your normal public employer and you don't really realize it until you join. C24 (p4)

There was much more planned than we have now...we talked about office process mapping and moving more towards lean but things are becoming more prescribed. It's frustrating because we have developed some great creativity and change...now so much is pre-determined centrally from government. C28 (q4)

5.3.13 Non Territorial Working and Clear Desk Policy

Hotelling or Non Territorial Working (NTW) is cited as a key driver of WwW. Myerson and Ross (2003) suggest such an approach omits exclusive work stations for employees, allows for less physical space and encourages greater social interaction within the organisation. Similar to the perceptions relating to communication, the following quotes present a range of views relating to NTW and clear desk policy.

Organisation One

Before, I had my own office. I could have private meetings, read confidential papers, not worry about leaving things on my desk overnight. Now I worry about who could be looking at my papers and trying to find meeting rooms when I need to talk to someone...even if it's just a confidential telephone call. C110 (r4)

I don't think they realize what our job involves...you need to concentrate, put your hands on vital papers quickly and be familiar with where you are working. It takes me ages to get used to a keyboard or the way light hits a screen. Now you just get accustomed to one desk and its time to move on. C110 (s4)

you meet so many more people this way...in the past you had your regular friends who you sat beside, had lunch with, and maybe a drink with after work, now though you get the chance to meet and work with new people, people you maybe only knew by sight. I probably know more people now than I ever have in 21 years. I'm learning new things all of the time too...you get so wrapped up in your own way of doing things and think that is the only way, then you see how others do the same thing and think 'oh that is so much easier'...I'm loving it. C17 (t4)

I would say there is a risk of dividing the place. Parts of the offices are becoming very similar to what I imagine a call centre will look like. You don't have any ownership of where you work and just come in, turn your computer on and get on with it...with targets to meet. Other parts have become more pleasant with comfortable seating areas, what I would call thinking space...you notice it when you walk around. C111 (u4)

we had a declutter day...the whole team sorted out what we needed and what could go...it was a hoot...I've never laughed so much in years...it's amazing what you have at the back of your drawers. It was a celebration of our old office and start of a new era. C18 (v4)

there were so many rumours it became a joke...the best one I heard was that you would be disciplined if you had anything on your desk...photographs and things...I had one girl in tears...I checked and it was rubbish...there should have been a better way to alleviate any fears. C19 (w4)

Organisation Two

We initially tried to have a clear desk policy...obviously we still do in hot desk areas but not at our normal desks...it wasn't practical with the amount of files and paperwork we accumulate. There were also issues of confidentiality. I like having my own space, where I know where everything is. C26 (y4)

5.3.14 Boundaries

Becker and Steele (1995) indicate physical boundaries are more than cellular office space.

Drawing on the work of Schein (1988), they suggest artifacts that can enable or discourage knowledge working include dress codes, allocation of furniture, use of language and the way functions are divided.

Organisation One

having come here from a more traditional government department you see the difference...even the way people dress and speak to each other. It was more formal before NTW...people in single offices and that...break times...everyone had everything at their finger tips so there was no need to break away from your space. Now we move around much more, even if just to collect printing or go to the files...and we have the break space so you can get together as a group and discuss things through. C111 (z4)

the senior team still have their own area so there are definite differences. I have never been onto their floor so don't know what it is like, but I bet they have their own desks. C16 (a5)

you can normally guess who the managers are because most of them sit beside each other or have a desk on their own. They also set the schedule of where to sit, who to have your break with etc. C11 (b5)

section by section is different...I've just moved from one team to another and it's totally different. My old team was really quiet, we came in and got straight down to work...there was still a sort of reverence to the more senior staff...quite old school. My new section is much less so...we are certainly more of a group...working with each other, covering for each other when people are off. I would say there are more and more sections operating like this now...so yes, they have less formality. C12 (c5)

Organisation Two

The place was definitely more structured...it was compartmentalized. There was less opportunity to see and discuss things with people, particularly those higher up. I certainly have a better understanding of how things work. C25 (d5)

The fact that everywhere is open and bright demonstrates we don't have many barriers. It is much more free and inclusive, however, I wouldn't say we are all free to work where we want or do what we want..we still have a job to do and targets to meet and that makes things more restrictive, but we do have better access to others. C23 (e5)

5.4 Findings from Semi-Structured Interviews with Change Agents

This section presents findings relating to the change process adopted to facilitate the objectives of WwW. With the purpose of identifying individual change practices, these findings are subsequently mapped against the change models developed by Becker and Steele (1995), Fisher (2009) and Cummings and Worley (2009).

In order to further narrow the data gathered template analysis was adopted. As a result the following key themes emerged as areas for further analysis.

Theme	Respondent(s)	Associated Literature
Purpose and Vision	C29, C30, C31, C112, C113, C115.	Becker and Steele (1995); Fisher (2009) and Cummings and Worley (2009).
Process of Change	C29, C30, C31, C112, C113, C114.	Becker and Steele (1995) and Cummings and Worley (2009).
Issues and Resistance	C29, C30, C31, C112, C113, C114, C115.	Moss Kanter (1989)

Table 19: Summary of key themes to emerge from data analysis process.

5.4.1 Purpose and Vision

Many writers suggest the first stage of effective change involves making organisational members aware of the purpose and vision of the change. Writing in the context of changing workplace design, Becker and Steele (1995) term this process 'changing expectations', whilst Fisher (2009) discusses the need for managers to provide a clear and congruent vision. Cummings and Worley (2009) outline the importance of managers sensitizing organisational members to the need for change, reveal discrepancies between current and desired states, convey credible positive expectations for the change and ensure all are aware of the ultimate vision trying to be achieved.

Organisation One

the then executive board took a view that we won't just refurbish the space and carry on using it as we have, they wanted us to look at opportunities to make best use of the space with the potential to deliver a number of benefits. Those benefits included cultural changes, such as getting away from a command and control sort of service, and adopt open plan work space so managers are better integrated with their teams. C112 (f5)

there were two projects or programmes that ran alongside one another; there was the refurbishment programme which was part of a wider estates initiative that is managed by estates management group, and they delivered basically the refurbished space; then there was a separate project - the non-territorial working project - that was set up to work alongside the refurbishment team to actually implement a number of changes to better use the workspace in a number of ways, based on Working without Walls. C112 (g5)

the main driver of the refurbishment was to reduce the number of workstations and use the building more efficiently. We did this and removed 860 workstations C113 (h5)

our senior managers and directors did retain their single occupancy offices...these were allocated on a role basis and had to be approved by the executive board. The rationale for that was that they needed space for confidential meetings and the like and the nature of their job would have meant they would often have to relocate to meeting rooms...this would have prevented others from using these meeting rooms so it made sense C113 (i5)

Organisation Two

there were three themes at the heart of our change process...strong leadership to set and maintain the vision...creating workspace which challenged our traditional way of thinking...and paying particular attention to the social needs of our employees, this included significant involvement in the design and implementation process and recognition that such involvement and social engagement was a key part of creating a dynamic, innovative workplace. C29 (j5)

the chief executive set three objectives...to encourage new ways of working, to encourage new technologies, and to create an inclusive workspace. C30 (k5)

5.4.2 Process of Change

Becker and Steele (1995) highlight eight considerations when implementing workplace stage, including identifying likely system impacts, establishing expectations, investing in appropriate technologies, educating all organisational members, encouraging employee participation, ensuring local interpretations of the change can be accommodated, gaining commitment and leadership from the senior team, creating mechanisms to review the change process.

Cummings and Worley (2009) provide a similar model, citing the need for motivation of organisational members towards the change, appointment of change agents to lead and develop political support for the change, creation of a well communicated route map for the change, ensuring organisational members are involved in the change, via suggestion and pilot schemes, creation of short term changes to management structure to facilitate change, provision of adequate change budgets, appropriate support networks for those involved in the change, training and development for all, and subsequent reinforcement of desired behaviors post change.

Organisation One

the original introduction to NTW was highlighted in our published strategy in 2004/05. I would say that was the first public announcement to staff about the plans. The first phase was scheduled to be completed in autumn 2006 so it was quite tight C112 (l5)

we set up change teams for each area. One area typically had about 1500 staff. The change team had about seven people in it. C112 (m5)

we also had the NTW project team...there was about eleven of them...they could answer any questions about Working without Walls and NTW...we worked closely with them too. We were the local team if you like...people who had a better idea about what went on with each of the sections. This was important...it made sure staff affected would know who they would be dealing with...we would be the total focal point. We met daily with individuals from within the project team to feedback any issues. C114 (n5)

we also had a day and a half to training session to start off with. This was to help the change team get some background about NTW and what was going on. We also talked about how we would go about the change...it was all very new to us. C114 (o5)

we tried to engage with managers in each of the sections..talking them through what would be happening...making sure they told us of any specific needs they had, like software. C112 (p5)

if i recall correctly, the pilot offices were trialed by the central services. C114 (q5)

most of the change representatives were managers in the areas...we didn't have many operational staff, although there was nothing preventing them from contributing. C112 (r5)

we realised after the first move there were some issues...we hadn't really prepared people for what to expect...we needed to improve our communications process...the message didn't appear to be getting out to the staff. The change process was iterative. To try and keep people informed we decided to put out newsletters prior to moving. This was normally about three to four weeks before the move process took place. It basically was a frequently asked questions newsletter. For the first edition it started at about six or seven pages. By the last move ended up with about 17. C113 (s5)

the change team were really there to facilitate the move...it was down to individual managers and team leaders to implement some of the cultural changes. C113 (t5)

Organisation Two

a design consultancy was brought in to advise on the way forward...they weren't going to lead the change, but given their experience of working on similar projects, would talk about different designs and methods of implementation. C29 (u5)

the senior team wanted to ensure everyone...and I mean everyone...had a say in the new workplace. This started with some briefing sessions with managers which looked at what the vision meant and how this could be achieved. The building design wasn't the starting point...it was more important to change the bureaucratic culture first...and of course the building design would help with this. C30 (v5)

the chief executive had a number of informal meetings with managers to look at how his vision could be achieved. It was really about getting ideas of what could be done...we identified a whole range of options...teleworking, hotelling, sabbaticals, secondments, matrix working, job rotation. Nothing was off limits...we could try them all in order to be more..well...creative, flexible. C29 (w5)

the senior team wanted the ideas to be embedded as soon as possible...they didn't want momentum to be lost...this resulted in the creation of some management guidelines which informed managers of how they should operate differently. The guidelines particularly called for managers to manage by outputs rather than inputs... which really did mean managers had to give more freedoms and move away from the micro management that had existed in some parts of the organisation. As long as rules weren't broken...staff were encouraged to work in their own way to get a task completed. C29 (x5)

to further embed this new form of working it was identified that a new look workspace would create the correct conditions. We called this Workplace of the Future. C29 (y5)

the pilot space was open to everyone...people could choose a period to work there and experience the different types of space. At very least everyone visited and we talked them through what we were trying to achieve.....in the main we were trying to create a space that encouraged a move from functionality and grade...where people were encouraged to interact and collaborate. C30 (z5)

feedback gained from the pilot users enabled us to build a business case for the new workplace design. We again used a team of consultants to gather this data. We wanted the resulting space to be as independently determined as possible...it was important that building users were certain that the ideas they were putting forward were being acted upon. I think using consultants showed our commitment to making this work and demonstrating our eagerness for cultural change. C29 (a6)

one of the key messages, which emerged from managers, was the need for support...support in preparing them and their staff in the new ways of working. We invested quite heavily in management development. The whole project would be scuppered if people didn't change their working practices...particularly managers. We ran a number of training courses looking at the benefits of modern management methods....empowerment, transformational leadership, enabling change, innovation...things like that. C30 (b6)

workplace co-ordinators were established...their role was to act as change agents and prepare teams for the move. We wanted the change agents to really get to know the teams they were representing so we had a number of them...mostly from the facilities team. They worked with the teams to find out what space they needed...who they needed to work alongside...what type of layout best suited them...their storage requirements, IT requirements etc. It was apparent we couldn't have a one-size-fits-all model. C29 (c6)

we wanted to ensure people felt completely involved in the new workplace...and really gel as a new team. A couple of weeks before the move we brought everyone who would be working together in the new space...probably about 100 at a time, and got them to spend some time together...in what would be their new space. These events were compulsory and designed to help people who maybe had never worked together to get to know each other. It also emphasised the importance of interaction and team working. The sessions were also designed to talk about the aspirations of the organisation and what we were trying to achieve. The Chief led this but also with the managers in the sections that were represented. This showed the commitment from senior and middle level. C29 (d6)

a guidebook was also created and given to all staff on their first day in the new space...this was a reminder of the layout, where to find people, but also a summary of the behavioural changes we wanted to see...things like collaboration and ideas. C31 (e6)

the change agents continued to work in their teams to encourage optimum use of the space. They also dealt with any issues, often relating to technology because we had invested heavily and no matter how much training you provide people will always have questions. C30 (f6)

we also commissioned a post-occupancy survey about six months after the move. It took the form of interview and questionnaire. It was important that this study investigated both the design of the new space and the success or failure of the new ways of working. There were some very positive outcomes to this survey. C29 (g6)

the survey also highlighted other areas of improved practice, including better opportunity for informal meeting and interaction and more flexible working areas both internal to the building and external...at home. C31 (h6)

one quote on the post-occupancy survey said it all really...more open and more friendly – I know faces and people that I had never seen in my previous two years in the organisation. C31 (i6)

5.4.3 Issues and Resistance

Moss Kanter (1989) notes six common causes of resistance to change if appropriate implementation plans are not adopted. These are people-focused resistance, systems resistance, organisation resistance, mechanistic resistance, political resistance and functional resistance.

Organisation One

there was huge resistance from various people... from members of the board down to floor management levels right down to the staff on the floor and in some areas we've still got it now; you know, a lot of people got the wrong understanding of what we were trying to achieve. All they see is the fact that they have to sit at a different desk every day for the sake of it and don't necessarily understand the wider benefits that have been delivered and achieved by it. C112 (j6)

there were lots of issues about personalising desk space... photographs of this that and the other...we made the point that there was no harm in personalising desk space, as long as it was cleared on an evening. C115 (k6)

the nurse was always having to get involved...out of the blue so many people had additional requirements at their workstations because they had this wrong with them or that wrong with them...there were lots of bad ankles in one section. They thought if you needed a footrest or special keyboard you could stay at your own desk. This wasn't the case...we introduced different height desks and mobile support equipment so that nobody could have an excuse. C113 (l6)

there were lots of local arrangements about how NTW would operate. Things like how the space would be used, whether team leaders and managers would have fixed desks or not, how often people would move, whether the break out space could be used for meetings, food etc. This really has led to different interpretations. We do try to ensure uniformity but sometimes it is impossible. C112 (m6)

I don't think people were fully prepared. There was more of a backlash than we anticipated, from all levels. Managers certainly thought their status was being challenged and a lot of staff thought we were turning the place into a call centre...there were too many stories spreading around the place about what was happening and we didn't do enough to put a stop to them...it was such a tight timescale. C114 (n6)

I would say we let the softer cultural issues slip...we received so much resistance to the whole process of seating arrangements, we didn't really embed some of the wider cultural aspirations, particularly areas around sharing knowledge and creating ideas. C112 (o6)

it was far easier to sell the idea of the change on the basis of financial improvements...we could easily demonstrate that...you can't really demonstrate the benefits of some of the softer cultural issues...so we probably didn't play on them. C114 (p6)

Organisation Two

problems of concentration came up time and time again during the design phase...that's why we put more study area and quiet space areas into the building. Managers tended to want space where they could escape to work on things...and of course they had always occupied individual offices. C29 (q6)

when we first mooted the idea of no one having a fixed workspace, there was lots of resistance...people even thought if they spent time working at home they would only be given a hot desk space...people do like having their own territory. We had to get the message out straight away that we wouldn't be removing people's entitlement to a desk...I think that helped. C30 (r6)

you have to remember that this was probably going to be much more difficult for the managers, as they were losing the most...certainly in terms of status. I think the fact that the Chief Executive and Strategy Director were the first to give up their offices was a clear message...other managers couldn't really complain too much then. C31 (s6)

5.4.4 Feedback

As the semi-structured interviews approached their conclusion, the researcher asked participants to share their views of the success and challenges of the change process within their organisations.

Organisation One

some operational managers, who had their own their own offices before, have said they are much more integrated with their teams now....they know everyone from their AA grades right up to grade 6....that would have never happened in the past. C114 (t6)

people have noted a massive difference not just in the physical space but in the way that that space is used. Previously there was very outdated old-fashioned space with no kind of uniformity...it varied from floor to floor...now everyone pretty much has the same...we have removed signs of status and empire building and I would say people feel valued because of that. C112 (u6)

there is tangible evidence that the interaction space is being used..the takings of the sports and social shop as an example they've increased by 400 %. C113 (v6)

we did undertake a post occupancy survey last year...when asked 'how satisfied are you with your performance now that you're operating in the new space', 70% were satisfied, 24% were indifferent and 6% were dissatisfied. When asked the same question pre NTW...29% were satisfied, 52% indifferent and 19% were dissatisfied. C113 (w6)

As part of the programme closure process, the change team carried out an informal evaluation of their role and lessons learnt. This identified a number of best practice areas and opportunities for improvement:

1. Dedicated change management teams for each 1500 staff were deemed an area of best practice.
2. Local agreements within teams should be avoided. Standard practices regarding workstation layout, rotation, use of informal space etc should be implemented and controlled.
3. Greater senior management input and support would have been beneficial, particularly in promoting the need for change.
4. Refurbishment and NTW change teams could have been better integrated. There was some duplication of effort and mixed messages.
5. Greater opportunities for staff involvement could have been realised.
6. Wider dissemination of wider cultural changes such as benefits to knowledge sharing, innovation and empowered leadership should have been made. Too much emphasis was placed upon the physical move.
7. Timescales were tight and led to communication and resistance issues. C112 (x6)

Organisation Two

the process was the brain child and baby of our then chief executive...he really did live and breathe it....you couldn't help but become engaged with what he was trying to achieve...he was so unbelievably passionate about how he wanted the organisation to feel, to look and to act....he was the ultimate change agent. C31 (y6)

there was a great deal of time and resources put into the change...long before we even started to think about the redesign process...we started by sharing what we wanted the organisation to look like...in the way we did things...in what the barriers to our existing way of working was. Once you realized there are different ways to operate it opens your mind and the design stage starts with no pre-conceived ideas....that's what made this work. C29 (z6)

we involved every single person in every idea and no matter what people requested we looked into whether it was viable. If it was great...if it wasn't possible, we explained to them why. C31 (a7)

having the senior team acting as mentors and change agents was brilliant...they acted as guinea pigs...they gave up their offices first...they changed whatever rules needed to be changed to make the new ways of working happen. C31 (b7)

there was so much investment in time and money. We made the assumption that everyone would need to be trained in our new ways of working...it was the simplest way of ensuring everyone understand what we were trying to achieve and how they could make it happen. This alone brought teams together and started this idea of we are all in it together. C29 (c7)

6.0 Analysis of Findings

This chapter aims to present analysis and exploration of the research findings. A detailed discussion of key findings will be presented as they relate to the original research title and following objectives:

- To analyse employees perception of the effects of WwW as a facilitator of learning in their workplace.
- To identify factors that assists and detracts from the development of learning in these contexts.

6.1 Analysis of Observation and Desk Research

Observations made during the four case study visits were guided by research undertaken by Ward and Holtham (2000), Duffy (1997), Myerson and Ross (2003), Becker (1999) and the themes identified as integral to the WwW Initiative. The purpose of this observation, and subsequent clarification of observations through scrutiny of desk research, was to ascertain the workplace models adopted alongside the extent to which the new workplace designs had met the principles of WwW and earlier goals of the integrated workspace.

It is envisaged from this process potential learning enablers and barriers could be drawn.

6.1.1. Analysis against Becker (1995) Guidelines

Criteria	Organisation One	Organisation Two
Use buildings more productively	½ Whilst some meeting space is free for drop in use other is bookable only.	¾ Majority of meeting space is available without booking.
Locate facilities where people want to be	½ Social facilities are centrally located although there are use restrictions for some organisational members. Social and interaction space within functions is for sole use of designated teams.	✓ There are no restrictions on how and when organisational members can use space. Flexible working policy further allows for and encourages teleworking. Significant investment has been made in ICT to encourage remote communication.
Build for function, not form or image	½ NTW has removed symbols of status in most areas although senior teams retain some cellular space. All personnel have identical furniture and space allocation. Local managers have been allowed to manage seating allocations and opportunities for socialization.	✓ All symbols of status have been removed as part of workplace redesign strategy. There is no cellular office space or distinction between levels in hierarchy. All personnel have identical furniture and space allocation.
Build for change and expect to change it	X Workplace locations are allocated by function and separated by fixed walls and corridors. Furniture is not mobile.	½ Workplace locations are allocated by functions although a number of related functions are located together without physical barrier. Whilst majority of furniture is not mobile, meeting and project space utilizes lightweight tables and chairs to allow ease of movement.
Encourage spontaneity	X Workplace allocations are fixed and change of use must be approved via a standardized procedure. Local changes are discouraged.	✓ Local workplace layouts and seat allocations can be changed without central approval.
Encourage informal contact	½ Whilst interaction space is provided in each functional area and centrally throughout the building, some restrictions exist for organisational members.	✓ Interaction space is provided in each functional area and centrally throughout the building. There are no restrictions of how and when individuals may use such social space.

Speed up group development	½	There is some evidence of social and meeting space being used for team meetings and group working.	✓	There is significant evidence of social and meeting space being used for team meetings and group working.
Encourage a heart of the community	✓	Significant investment has been made in creating a central core of social space including café, resource centre, gym, project room, shop, external gardens etc.	✓	Significant investment has been made in creating a central core of social space including café, project room, mini gym etc.
Make socialization a requirement	X	Whilst social space exists, there are no specific guidelines to encourage its use.	✓	Organisational members have been advised on the benefits of socialization as part of a structured staff development programme.
Encourage workplaces that are more like home	¼	There is a mixture of space types although some local restrictions exist in how they can be used. Clear desk policy discourages personalization of workspace.	✓	There are a mixture of space types without use restrictions. There are no restrictions on workspace personalization.
Create a home base	X	Whilst teleworking is not allowed, there are a small number of hotdesk spaces for visitors. With authorization these can also be used as a base for cross functional teamworking.	✓	Teleworking is encouraged and for those who choose to telework for majority of their working week a range of functionally and centrally based hot desks and carrels are provided for visits to the office.
Pay special attention to entrances and exits	X	Whilst there is a central entrance, this is small and predominantly used for visitors to the building. Separate entrances/exits are available for different areas of the building.	✓	Both sites have one entrance/exit with atrium meeting area and reception/concierge service.

Table 20: Analysis against Becker (1995) Guidelines

Key: X denotes the organization clearly adopts the guidelines described by Becker (1995).

¾ denotes there is significant adoption of the guidelines described by Becker (1995)

½ denotes there is some adoption of the guidelines described by Becker (1995).

These findings suggest that whilst both organisations have adopted similar workplace designs principles, the extent to which they have been interpreted or adopted differs significantly.

Organisation one adopts significantly more controls in how space can be used and has retained a number of physical artifacts which could be perceived as status symbols (eg cellular space for some senior team members).

Furthermore, in comparison to organisation two, little consideration has been made to alignment of functional groups when allocating space which in turn may discourage opportunities for synergy and collaboration.

Organisation two has made significant use of glass and open spaces to remove physical barriers and, as such, there is more evidence of spontaneous interaction, whilst organisation one has retained narrow corridors, solid walls to separate functional groups and offers limited wayfinding. There is far less cross-functional, spontaneous interaction evident in organisation one.

Both organisations have made considerable investment in creating centrally located social and collaborative space. However, whilst observation suggests employees in organisation two are free to determine how and when such space is used, local restrictions often exist in organisation one. Such control measures appear to be based upon the nature of job undertaken by organisational members, grade, and view of immediate line manager. Similar restrictions apply when observing the extent to which space is used for team working or team development. Indeed, sightings of team meetings and group discussion in break out, team and social space were frequently observed in organisation two.

Personalisation of local space is discouraged across organisation one, whilst no such restrictions exist in organisation two. Furthermore, there is greater evidence of aesthetic features such as artwork, team photographs, postcards etc. in functional and group space within organisation two.

Organisation two fully operates teleworking and provides significant hot desk space, alongside other specific storage and telecommunication facilities for visiting colleagues.

Whilst organisation one adopts a range of flexible working practices, teleworking is not allowed. Despite this, provision of a small number of hot desk spaces in each functional area has been created. There was limited observation of such space being utilised.

Organisation one has created a new entrance/exit as part of WwW, however, this was predominantly used for visitors to the building or those employees located in the vicinity of reception. Organisation two adopts a single entrance/exit for all organisational members. This space provides a range of social space areas and visibility of the entire organisation.

With the exception of non territorial working and teleworking practices, it can be concluded that both organisations have adopted similar design features. Despite such similarities key differences in how such features have been operationalised exist.

6.1.2. Analysis against Working without Walls Themes

Criteria	Organisation One	Organisation Two
New Workstyles	½ A mix of workspace has been created and investment made in ICT particularly intranet, telephony and email. Some restrictions exist in how space can be used, managers allocate workspace and teleworking is not supported.	✓ A mix of workspace has been made and significant investment made in ICT, particularly as a tool to encourage teleworking. There is widespread use of video and teleconferencing. Whilst a hotdesking system is not in place, organisational members are encouraged to use the range of facilities available and locate themselves in areas most conducive for working. This approach is supported by a staff development programme.
Openness, communication and collaboration	½ Investment has been made in enhanced computer networks, remote log in facilities, telephony, shared e-storage facilities and intranet.	✓ Investment has been made in enhanced computer networks, remote log in facilities, shared e-storage facilities, telephony, teleconferencing, video conferencing and intranet.

		<p>Majority of employees have located into a single base and there are a wide range of social areas to encourage collaboration.</p> <p>Organisational members remain separated by functional specialism and cross functional space is very limited. Some local restrictions exist limiting how staff can use social and meeting space. There is some evidence of space being used for team meetings and a range of non bookable meeting rooms exist.</p> <p>In majority of areas there is no distinction between manager and subordinate space, although many have retained visible signs of status, such as where they sit in relation to others. Some senior managers have retained their cellular offices.</p> <p>There is provision of non bookable private space in each functional area, although again some local restrictions exist on how this is used.</p>		<p>Whilst the organisation is based on a number of sites and encourages teleworking, a numerous hot desks and carrels are provided for visitors to the head office sites.</p> <p>Synergies between functional specialisms are encouraged through a co-location strategy and teams are clearly visible through provision of glass panel walls. There is considerable cross functional space and no restrictions on how social and meeting space can be used. The importance of interaction between teams is visibly communicated through staff development and vision statements.</p> <p>All organisational members are allocated identical space and furniture, with no visible signs of hierarchy or status.</p> <p>A range of private and social space is provided throughout the buildings, in functional and central space. Majority of this space is non bookable.</p>
The Less Paper Office	✓	<p>Non-territorial working requires a strict clear desk policy. Desk space has a three drawer pedestal. One drawer can be used for personal storage, although this must be cleared each evening. There are no further at desk storage facilities.</p>	¼	<p>A clear desk policy has not been adopted. Each organisational member has a three drawer pedestal and 1.5 metre cabinet located adjacently to their fixed workspace. Further cabinet space is provided for teleworkers.</p> <p>Some functional areas have additional storage space, individually negotiated with the facilities team.</p>

		<p>All organisational members have a further 1.5 metre cabinet and personal locker located away from workstations.</p> <p>Printing facilities are centrally located to reduce paper consumption and encourage interaction.</p> <p>Significant investment has been made in an intranet system to store all essential documentation and written communications.</p> <p>Email is the primary communication tool.</p> <p>No organisational members have personal storage space on the computer network.</p>		<p>Printing facilities are centrally located to reduce paper consumption and encourage interaction.</p> <p>Significant investment has been made in an intranet system to store all essential documentation and written communications.</p> <p>Email is the primary communication tool.</p> <p>Organisational members have additional personal storage space on the computer network.</p>
Identity and Expression	½	<p>Whilst there is a central entrance, this is small and predominantly used for visitors to the building. Separate entrances/exits are available for different areas of the building.</p> <p>Whilst organisational members can display personal items at their workstations, the clear desk policy requires these to be removed at the end of each day, as such personalization is infrequent.</p> <p>Visual displays such as team photographs etc are discouraged by the facilities team and appear infrequently.</p>	✓	<p>There is a single entrance at each site with atrium meeting area and reception/concierge service.</p> <p>Organisational members are free to display personal items at their workstations.</p> <p>Social and functional areas display a range of artwork and visual displays such as photographs of social events and achievements.</p> <p>Social and meeting areas adopt more vivid colour schemes and artwork and can be clearly differentiated. There is also a mix of lighting in social areas providing a more relaxed ambience.</p>

		Social and meeting areas adopt more vivid colour schemes and artwork and can be clearly differentiated. There is also a mix of lighting in social areas providing a more relaxed ambience.		
The Drive for Quality in Design and Procurement	✓	<p>This site forms part of a Private Finance Initiative and responsibility for maintenance rests with a private sector contractor.</p> <p>There is further evidence of outsourced catering and cleaning facilities.</p> <p>The building is recognized by BREEAM and adheres to the Design Quality Indicators.</p> <p>All requirements of the Disability Discrimination Act (1995) are met.</p>	½	<p>Both sites are leased from private landlords who retain responsibility for building repair and maintenance. There is internal responsibility for catering and cleaning facilities.</p> <p>The building is recognized by BREEAM and adheres to the Design Quality Indicators.</p> <p>All requirements of the Disability Discrimination Act (1995) are met.</p>

Table 21: Analysis against Working without Walls themes

Key: X denotes the organization clearly adopts the themes outlined in WwW.
¾ denotes there is significant adoption of the themes outlined in WwW
½ denotes there is some adoption of the themes outlined in WwW

Again there is clear observed evidence to suggest both organisations have embraced the key themes of WwW, however, once more, the extent to which such themes have been operationalised differs in each organisation.

Both organisations have created a range of workplace styles to encourage greater opportunities for teamwork, interaction, socialization and a task based culture, however, this is controlled to a significantly greater extent in organisation one as a result of numerous locally initiated management rules and procedures. This is particularly evident in operational or routine activity areas such as processing centres.

Furthermore, both organisations have invested heavily in ICT with opportunities to staff development in each to ensure better exploitation.

Both organisations are further characterized by a wide range of centrally located social spaces and investment in ICT-based communication tools such as intranet. However, again in organisation one, the extent to which these are used appears dependent upon local rules and procedures determined by a departmental and line management structure. There are no apparent restrictions in organisation two.

Observation demonstrates greater intra and extra team interaction in organisation two. This may be a result of fewer physical barriers, more spontaneous provision of break-out areas and greater visibility across functional areas. There are more physical barriers apparent in organisation one, including solid walls and corridors separating functional groupings and some retained visible signs of status.

As part of the adoption of NTW, significant emphasis has been made upon creating the paperless office and reducing storage space in organisation one. This is significantly less in organisation two and indeed, whilst standardized storage is provided for all employees, additional team storage is allowed in some areas.

Both organisations have centrally located printing resources, which further provides opportunities for interaction. Observation suggests these spaces are well used.

In analysing the extent to which space has created opportunities for identity and expression, organisation two has afforded considerable investment into its single entrances and exits. Such space is bright, open and provides a sense of activity. Such space also offers building users a mix of social and interaction space and as such there is much movement and bustle. Whilst organisation one has also invested in new entrance/exit space there is a very different ambience. This space acts more as a holding area with limited opportunity for interaction.

Both organisations have made use of colour, artwork and lighting to differentiate space and this has created a noticeable change in ambience, particularly in social areas. This is further emphasized in the office space in organisation two, where evidence of workspace personalisation and team mementos provides a less clinical, functional feel. The office space within organisation one appears more uniform and standardized.

With regards to the theme of quality in design and procurement, in organisation one, significant emphasis has been placed upon creating efficiencies as a result of improved use of space. This is evidenced through the award of a privately financed building programme and widespread use of outsourced facilities such as cleaning, catering etc. Such an approach has not been adopted in organisation two. Both organisations have engaged fully with the BREEAM process and met all Disability Discrimination Act (1995) requirements.

6.1.3. Analysis against Ward and Holtham (2000) Knowledge Generation Model

Organisation One

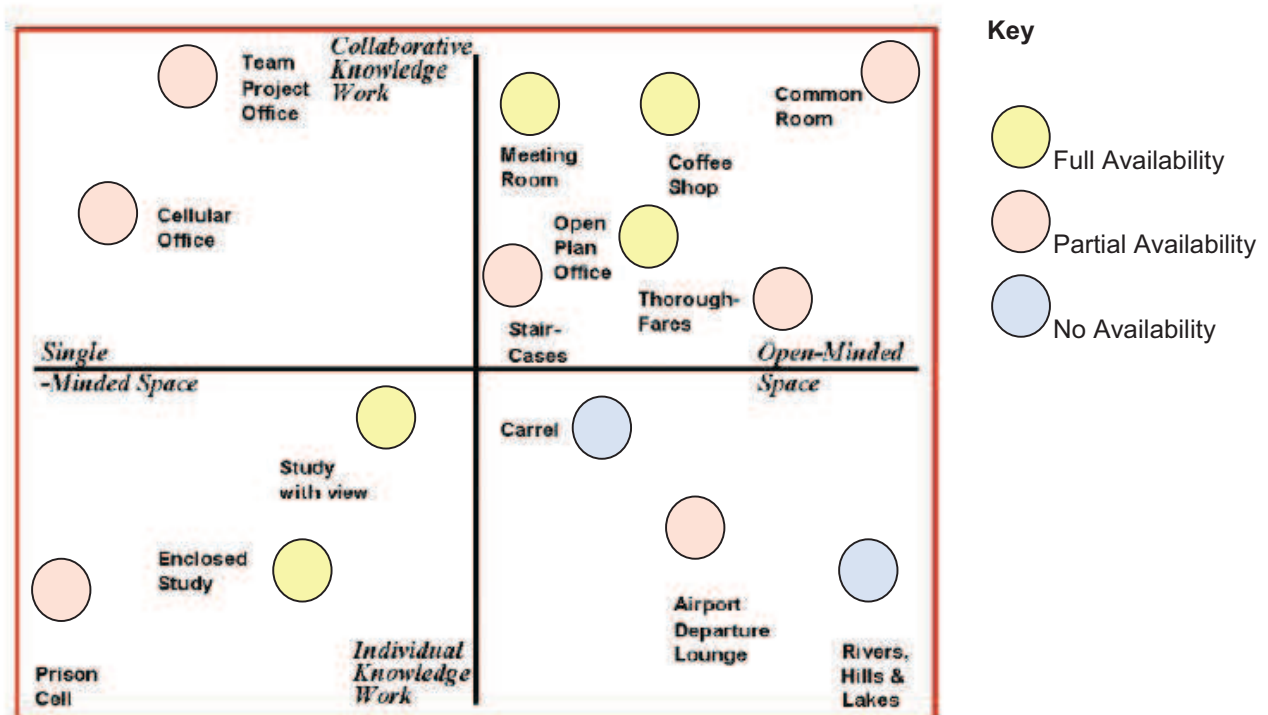


Figure 33: Analysis against Ward and Holtham (2000)Space and Knowledge Generation Model – Organisation One

Organisation Two

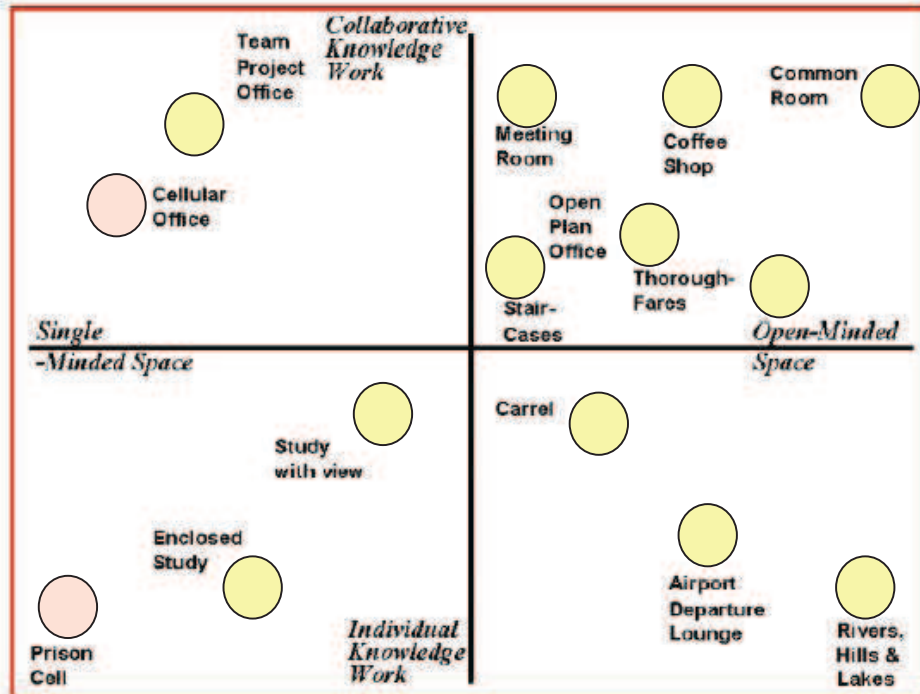


Figure 34: Analysis against Ward and Holtham (2000) Space and Knowledge Generation Model – Organisation One

With the exception of Rivers, Hills and Lakes (teleworking) and carrels, both of which are not available in organisation one, this mapping of workplace design features suggests equivalent features are available in both organisations.

What differs significantly between the organisations is the extent to which such space is made available to members. As discussed previously, observation indicated greater levels of control in organisation one. Such departmental or line manager controls were seen to particularly restrict the use of local break-out space and within many areas, unless members were on an agreed rest period, there was an expectation they should remain within the vicinity of or at their workstation. This resulted in many break-out areas being used solely for the use of refreshment consumption. These restrictions were particularly visible in operational or process-driven functions and less so in central or strategic areas. No such restrictions were visible within organisation two, with far greater use of social and interaction space evident throughout the organisation.

6.1.4. Analysis Against Workplace Patterns and Space Matrix, Duffy, F. (1997)

Organisation One

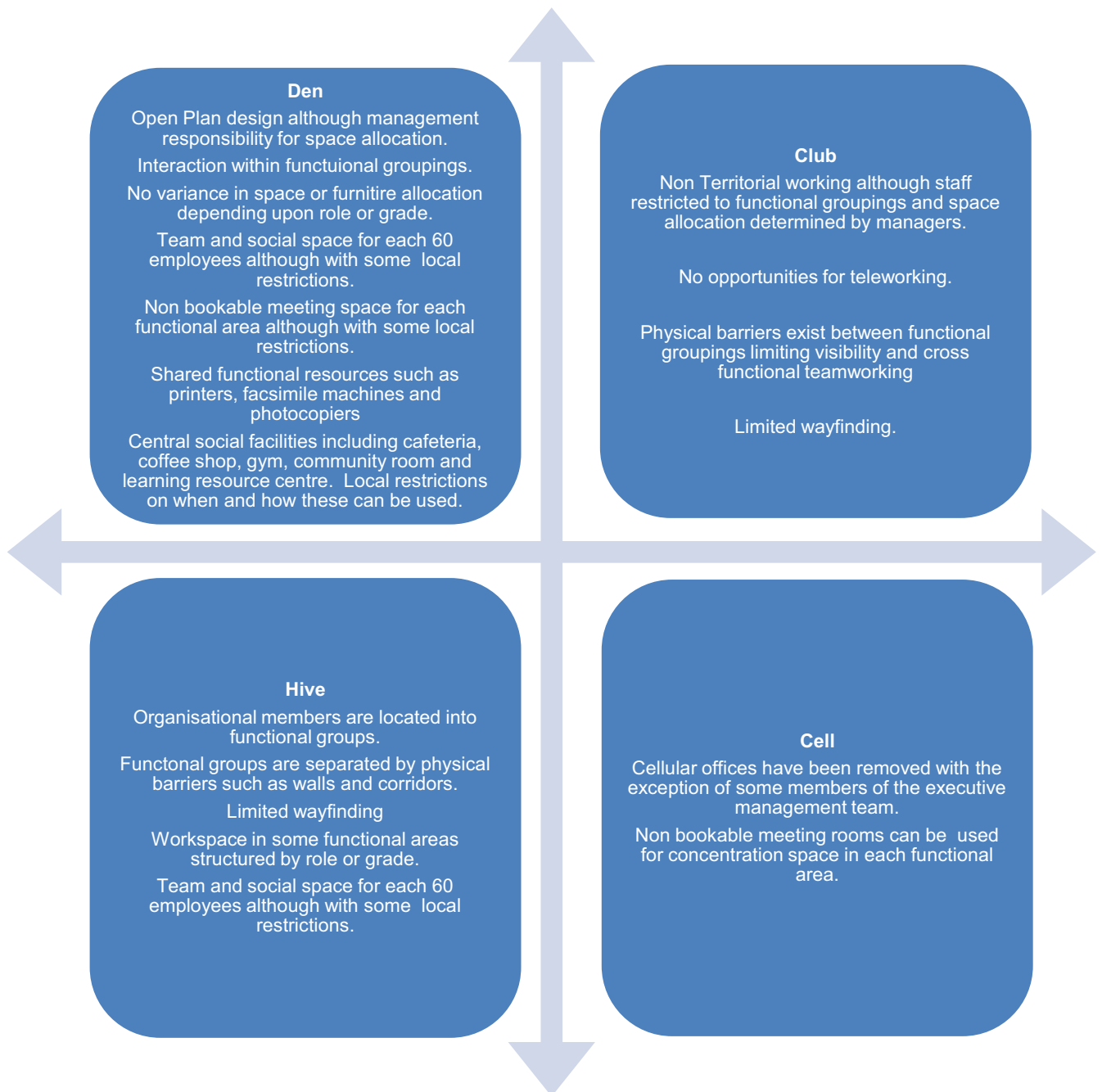


Figure 35 : Analysis Against Workplace Patterns and Space Matrix, Duffy, F. (1997) – Organisation One

Organisation Two

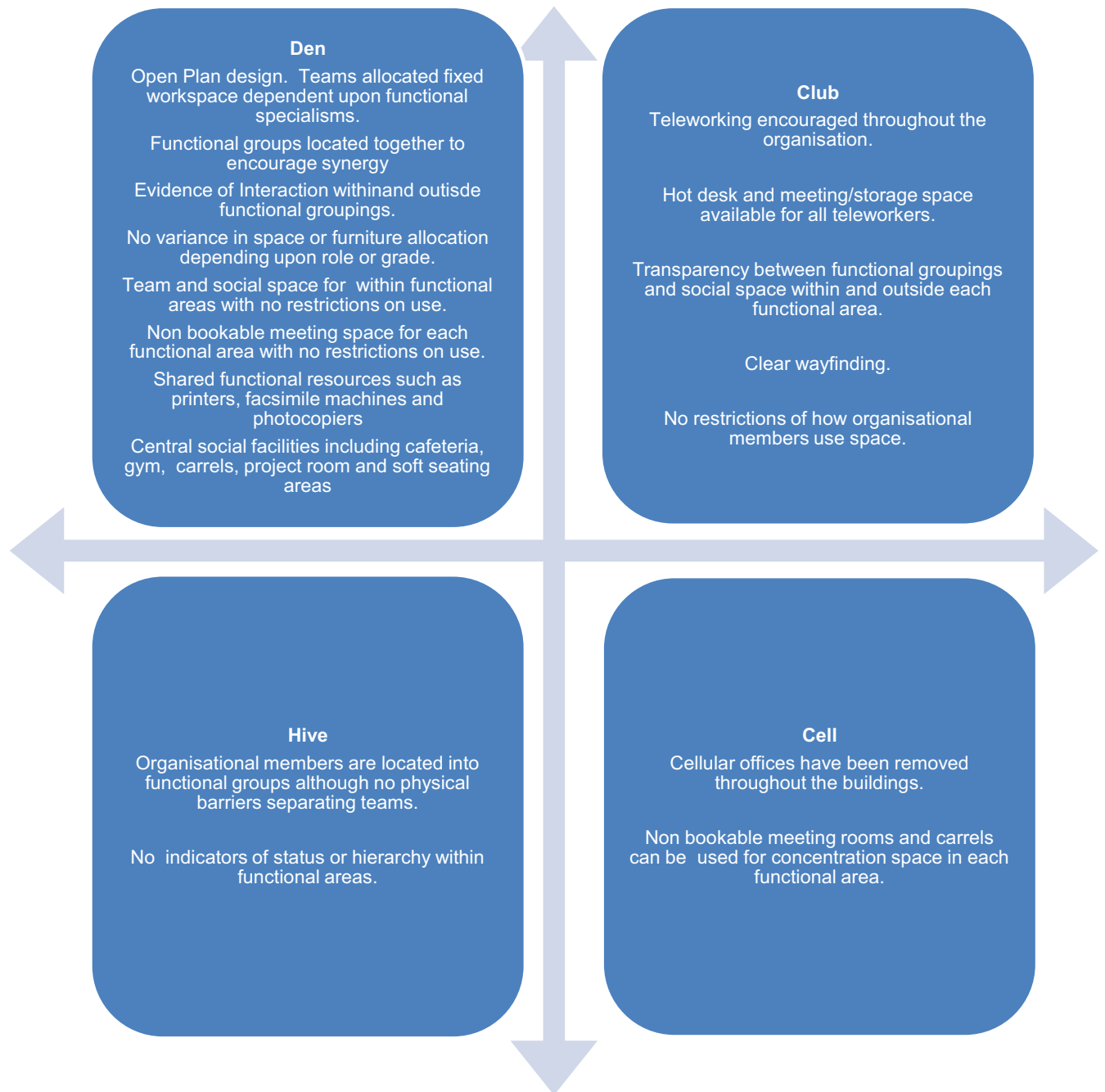


Figure 36: Analysis Against Workplace Patterns and Space Matrix, Duffy, F. (1997) – Organisation Two

6.1.5.. Analysis against The 21st Century Office, Myerson J and Ross P (2003)

Organisation One

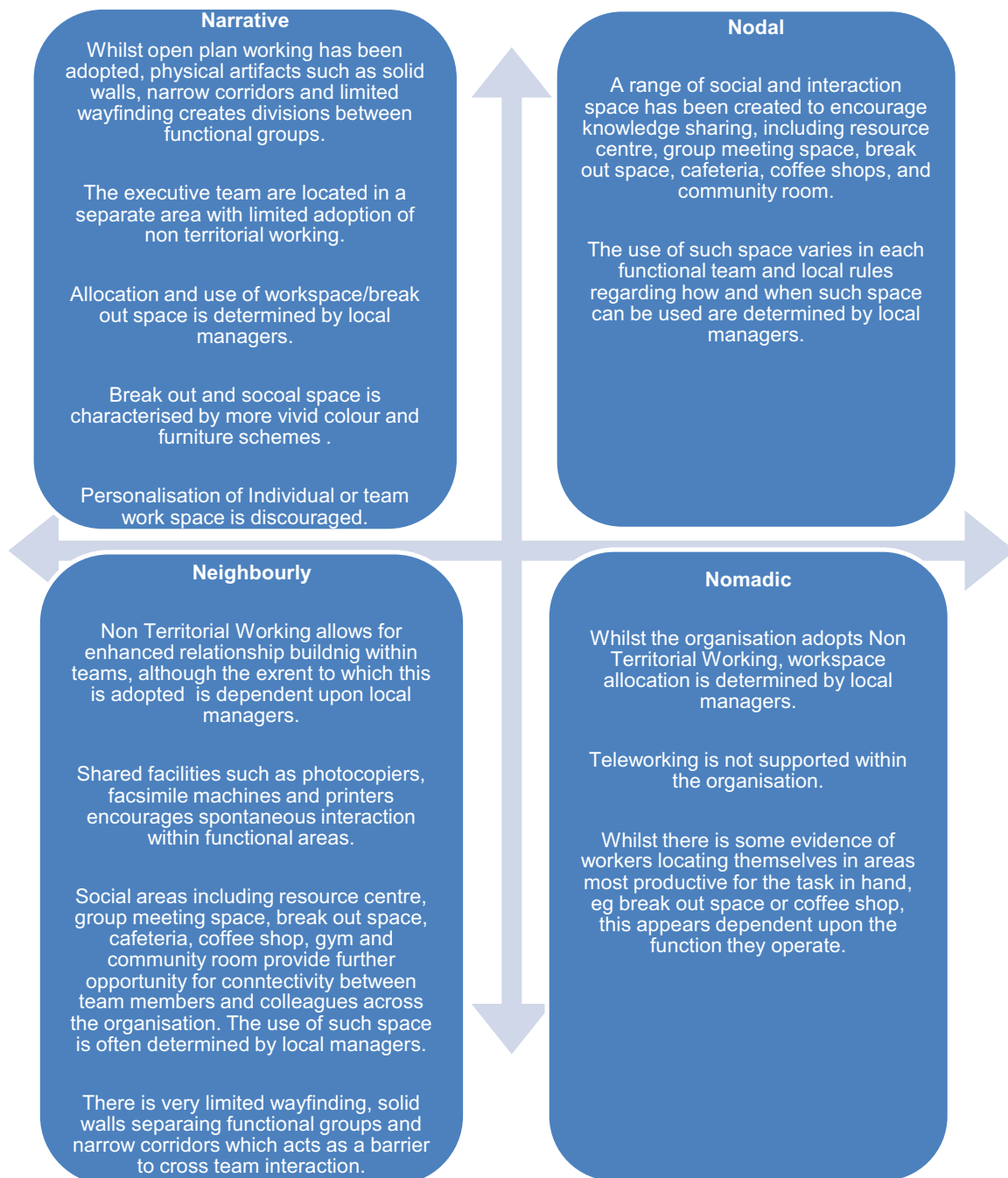


Figure 37 : Analysis against The 21st Century Office, Myerson J and Ross P (2003) – Organisation One

Organisation Two

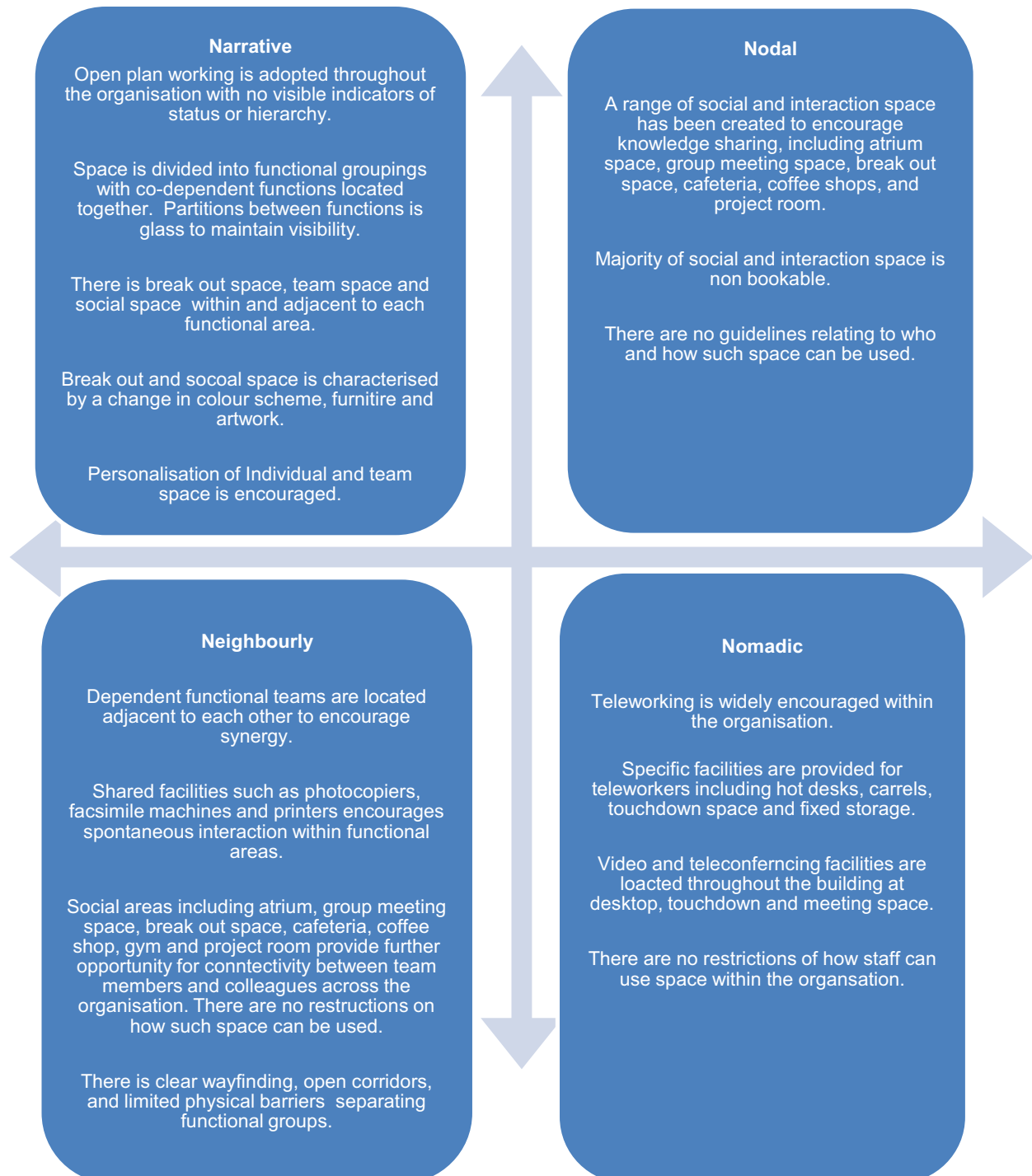


Figure 38 : Analysis against The 21st Century Office, Myerson J and Ross P (2003) – Organisation Two

Observations mapped against the Workplace Patterns and Space Matrix created by Francis Duffy (1997) suggest that, whilst organisation one operates many features of Den working, as preferred by WwW, a lack of member freedom in some teams and physical barriers separating functional areas has retained many of the Hive characteristics commonly associated with public sector organisations. Such characteristics may have subsequent impact upon the creation of conditions for learning.

Furthermore, the retention of some cellular space by senior members of the management team may further act as a mental model, reinforcing the traditional features of hierarchy and status symbols within public sector organisations.

In comparison, organisation two appears to have fully adopted the features of Den working, with further evidence of Club working for those who choose to work off site. High levels of employee autonomy encourage Den working, evidenced by numerous observations of member interaction within social spaces. Such Den working is further supported by the removal of all physical indicators of status/hierarchy throughout the organisation.

Further analysis of observations against the The 21st Century Office model developed by Jeremy Myerson and Phillip Ross (2003) suggests organisation one has not effectively used its workspace as a narrative to communicate all of the brand values of WwW and particularly, there exists indicators of power, hierarchy and status more commonly associated with modernist management practice. Space has, however, been created to encourage nodal and neighbourly working environments, although once again, the extent to which this is maximized appears to depend upon the role of the employee and attitude of local managers. Nomadic working is not encouraged within the organisation.

Organisation two communicates the narrative of WwW primarily through no visible indicators of status or hierarchy and widespread visibility. Furthermore, nodal working is encouraged through significant opportunities for social interaction without procedural restriction. The removal of physical barriers such as walls, cellular offices and narrow corridors and co-location of functional groups further supports opportunities for neighbourly working, whilst encouragement of teleworking and provision of hot desk, storage, teleconference and ICT solutions for remote working also enables the nomadic workplace.

It can be concluded that the process of observation suggests that whilst both organisations have adopted similar design features, differences exist in how such features have been operationalised. Most notably organisation one appears to have retained a number of modernist management features, particularly in areas characterized by routine, process based operations. Whether such differences have affected opportunities for learning will emerge as part of the following semi structured interview process.

6.2. Analysis of Findings From Semi Structured Interviews With Building Users

6.2.1 How Space is Being Used.

Organisation One

Statements such as those cited by C16 (a) suggest that space has been created to encourage informal contact and make socialisation a requirement. This supports the need for greater cross functional collaboration (Hitt, 1995) as a driver of learning. Becker (1995) further cites the need for social areas to be centrally located and accessible to all. Whilst there appears to be some access barriers due to location, this was an isolated comment.

Providing a range of meeting areas also suggests that the conventional hierarchical and functional norms of traditional bureaucracies, in which organisational members were constrained to where they could and could not operate have been relaxed.

Becker (1995) terms 'this locating facilities where people want to be', whilst Lassey (1998) considers this move from traditional operating practices to be an essential characteristic of the learning organisation.

Furthermore, the quote from respondent C16 (b) supports the work of Becker and Steele (1995) who suggest physical artifacts such as decorative styles, can provide a sense of the organisation's mission, values, style and culture.

The statement by respondent C18 (c) supports the conclusions drawn by Becker and Steele (1995) who considered a range of activity spaces can enhance task accomplishment, problem solving ability and energy flow. Findings suggest improved access to meeting space has enhanced such opportunities. The decision to create non-bookable spaces is also encouraging the potential for spontaneous interaction, as discussed by Elsbach and Bechky (2007).

Steele (1973), Becker (1995) and Becker and Steele (1995) promote the use of social space as an aid to informal communication and learning. Furthermore, Wicker (1979) suggests a range of criteria for creating effective gathering place. Using these criteria, findings from research participant C111 (d) suggest the space benefits from being centrally located and accessible, although previous findings suggest this is not the case for all. The space is also being widely promoted through its use for focal events such as charity days and blood donor sessions. These forms of event encourage use and raise awareness of the benefits of such space.

Providing focus points such as refreshments also encourages use, although cost may become a barrier. To overcome such a barrier, it is apparent that the organisation does not restrict use of cafeteria areas to only those who are purchasing refreshments. Such a policy ensures no physical barrier.

Whilst findings from research participants based in routine focused operational functions suggest varied use of social and meeting space, those located in central or strategy-focused functions indicate greater restrictions on the way in which such facilities are used. Social space appears to be used only as refreshment space in some areas, with fixed controls regarding the time periods afforded to organisational members.

There appears to be limited opportunity for group development, spontaneous interaction or encouragement of experimentation from leaders within such sections (C13 (e)). This would support the findings of Bichard (2009), Minogue (2001), Osborne and Gaebler (1994), Godfrey (1994) and Fry and Griswold (2003), who each note the barriers to collaboration and experimentation caused through the proliferation of performance measures, nature of work undertaken and reluctance to remove embedded systems.

Whilst the WwW initiative supports research carried out by Becker (1994) and Myerson and Ross (2006), noting a need for concentration space statement from respondent C110 (f) concurs with the conclusions drawn by van der Voordt (2004) who ascertained that management grades may command space designed for collaboration for reasons relating to loss of status, privacy, territory and identity.

Organisation One

Similar to organisation one, statements such as that provided by respondent C25 (g) suggest space has been created to encourage informal contact and make socialisation a requirement. Positive comments are cited from both operational and strategic focused employees.

Furthermore, comments from other respondents such as “*we are definitely encouraged to use them*” and “*I remember the speech we were given*” suggests the importance of such contact has been reinforced by senior management (see appendix six). This supports the need for greater cross-functional collaboration (Hitt, 1995) as a driver of learning and leaders acting as facilitators (Millett, 1998) and the importance of leaders playing a role in encouraging their members to move away from their traditional workspace and engage with the wider organisational community.

Respondent statements such as that given by C28 (h) further confirm that a range of activity spaces have been created which in turn are improving task accomplishment, problem solving ability and energy flow (Becker and Steele, 1995). It is evident that such spaces have further improved opportunities for spontaneous interaction (Elsbach and Bechky, 2007) and subsequent personal mastery (Senge, 1994).

Varied decorative styles further act as physical artifacts to create clear mental models (Lassey, 1994) and provide a sense of identify (Becker and Steele, 1995). In this instance the mental models reinforce the desire for a more open, empowered workplace (Lassey, 1998).

Furthermore, comments from respondents such as “that was what our new building was designed to encourage” (see appendix six) suggest that the purpose and vision of the new organisational design has been clearly articulated from senior management, thus facilitating a shared vision (Senge, 1994) and supporting the conclusions of Johnson (2005) of the need for managers to empower employees and create an appropriate culture for learning.

6.2.2 Environment

Organisation One

Clegg (1990), Reschenthaler and Thompson (1998) and Rossiter (2007) positively associate the success of new working environments and the creation of postmodern cultures with removal of the physical indicators of status and hierarchy, arguing that such remnants of the traditional organisation will stifle subsequent empowerment and innovation.

This interviewee suggests such barriers continue to exist through terms such as ‘As AO’ and ‘the higher ups have more private space’.

Clegg (1990) considers such traits to be a clear sign of modernity, whilst Senge (1994) would argue a lack of personal mastery exists. The findings reflect the traits of a bureaucratic structure.

Dean (1977), Hundert and Greenfield (1969), Clearwater (1980) and Sundstrom (1986) further suggest that a lack of privacy and concentration space is the most commonly cited cause of resistance, particularly from management grades, and attention should be paid to ensuring appropriate solutions are sought to balance the workspace needs of different building users.

Again statements from respondents suggests the existence of 'Boss Centred' power (Tannembaum and Schmidt, 1973) or Command and Control approaches (Hitt, 1995, Lassey,1998) in some parts of the organisation. Du Plessis, du Plessis and Millett (1999) suggest that common practices should be embedded for all facilitated by leaders within the organisation.

Carnevale (1992) and Pfeffer (1982) discuss the importance of aesthetic impact such as use of colour, artwork and change of space etc as a facilitator of increased energy and performance. As such, the statement from respondent C15 (j) provides evidence that social space is creating such impact, however, in this instance such space is being used to provide opportunity for relaxation and formal break rather than work based interaction. Senge (1994) would consider that the provision of such space shapes positive mental models contributing to new ways of working.

These findings further support the research undertaken by Legge (1995), which reflects upon the nature of work as to the extent of freedom to interact with others away from the traditional work setting, and the work of Bichard (2009) and Godfrey (2000) who particularly cite the issues of rigid performance targets and regimes within the public sector.

Similarly the statement from respondent C18 (k) suggests that mental models are changing in some areas of the organisation, overcoming what Reschenthaler and Thompson (1998) term 'a them and us' culture and the use of physical barriers such as walls to create interdepartmental difference.

Whilst the findings do present some barriers, there is clear evidence (C14 (l)) that the new environment is providing opportunity for social interaction and improved networked collaboration, as discussed by authors including Szllagyi & Holland (1980) and Keller and Holland (1983). Senge (1994) would consider this to aid the development of team learning, whilst Hitt (1995) suggests this aids the development of dynamic networks and cross functional teams.

Organisation Two

Again, commonly used statements such as that from respondent C26 (m) suggests physical artifacts are creating clear mental models to indicate the desired culture of the organisation (Senge, 1994 and Becker and Steele, 1995). They are further enhancing informal contact and group development as cited by Becker (1995). The commonly occurring issues of concentration space cited by van der Voordt (2004) appear to have been overcome through the provision of a range of space types (Becker, 1994), thus providing balance between the need for interaction and privacy.

Furthermore, Schein (1995) and Becker (1995) note the important role that entrances and exits play in shaping desired mental models. The statement from respondent C23 (n) suggests organisational members associate a bright, airy and busy workspace with energy and productivity.

A goal of WwW was to create a design which projected an identity of openness transparency. The statement by respondent C27 (o) suggests this goal has been achieved. As such, Senge (1994) considers this to be a driver of creating a shared vision, whilst du Plessis, du Plessis and Millett (1999) and Gill (1998) both consider this to be an indication of a learning culture.

Similarly, Becker (1995) and Schein (1995) consider that workplace design provides an immediate perception of an organisation's culture. Senge (1999) further notes organisational design can enhance voluntary commitment. Findings such as that from respondent C22 (p) suggest the space and ambience created within the organisation is facilitating a positive mental model with employees and as such, may enhance subsequent productivity and loyalty.

6.2.3 Hierarchy

Organisation One

Findings indicate highly defined structures are in place (Bovaird and Loffler, 2009) and terms such as 'senior managers' and 'girls' from respondents C11 (q) and C16 (r) indicate status and management power remains in place (Greener, 2009). This supports the work of Reschenthaler and Thompson (1999) who cites a 'them and us' culture and physically removed senior management as being a key inhibitor to learning within the UK public sector.

The revelation that senior managers have retained their individual offices further indicates hierarchy and status, contradicting the recommendations made within WwW, which suggests a need for openness, communication and collaboration.

It should also be noted that these findings emerged from operational departments which are characterized by routine, process-focused tasks. This further supports the view of Legge (1995) who discusses the nature of work and its impact upon the adoption of learning organisation principles.

There is, however, evidence that mental models (Senge, 1994) have been transformed in some areas of this organisation, most notably central functions such as Human Resources and Policy.

Organisation Two

Whilst all respondents in organisation two recognize the existence of a hierarchy, they interpret this term as the organisation having a clear structure, systems and processes. Wallace (1998) and Applebaum and Batt (1994) consider a public sector organisation adopting post-modern management practice would adapt their hierarchy to create improved internal networks, opportunities for empowerment, member participation and flexible working. Comments such as “most of us feel very comfortable speaking with the Chief Executive or one of the senior managers, it’s just normal” and “we mix in more” suggest that such postmodern principles have become embedded. Furthermore, Sennett (2006) called for greater interpretation of rules. Despite operating in a bureaucracy, comments such as “I think we do interpret the rules more now” suggest this has occurred.

These findings suggest that the organisation has adapted working practices and developed some levels of power (Lassey, 1998). The organisational structure has become more dynamic with greater opportunity for cross-team working (Hitt, 1995). This implies increased levels of personal mastery and changed mental models (Senge, 1994).

Furthermore, statements such as that from respondent C22 (t) demonstrate a commitment to enhanced personal mastery (Senge, 1994) and collective exploration (Rossiter, 2007).

6.2.4 Purpose and Vision

Organisation One

The findings from respondents including C19 (u) and C16 (v) suggest some discussion has taken place regarding the purpose and vision of WwW, although the term 'we were briefed', indicates a top down approach was adopted. Furthermore, these findings support the conclusions drawn by Bichard (2009) and Godfrey (1994) who notes the issues of rigid performance targets and regimes as both an overwhelming driver within the public sector and a subsequent inhibitor of learning and innovation.

Additionally, there is an indication that there is a focus upon efficiency as a key driver of WwW. These characteristics are particularly common in operational areas, and cited at all levels, including Higher Officers. Using Hitt's (1995) model, this would suggest the characteristics of a traditional, modernist, organisation.

It is clear from the findings that the emphasis has been upon the physical change in the workplace rather than the wider benefits and purpose of the initiative. This approach fails to recognise the views of Elkjaer (1999), who suggests all organisational members should be made fully aware of the micro and macro issues they face and the full details of the rationale for change. Bradley and Parker (2002) would consider the reliance upon senior managers to lead the change suggests an internal focus exists within the organisation. This is typically associated with hierarchical organisations in which managers use information as a source of power and control.

Writers including Senge (1992), Rossiter (2007) and Fry and Griswold (2003) discuss the need to adopt participative processes when sharing vision and encourage all to contribute. They suggest such contribution creates clearer understanding and 'buy in'.

Furthermore, findings suggest an unstructured approach was adopted in promoting the vision (respondents C12 (w) and C14 (x)). This further suggests emphasis has been placed upon the move process and subsequent change in workplace layout rather than the underlying principles of WwW. Bennington (2000), Juran (1993), Miller (1984), Collins and Porras (1996), and Cummings and Worley (2009) consider leaders must clearly state the purpose of the change and the core values attempting to be achieved.

Findings further indicate some reluctance from employees to become involved in the planning and design process due to lack of confidence or ability even though their grade indicates they have supervisory responsibility. Shiba (1993) discusses the importance of development to prepare individuals' to contribute to the change process. Nahapret and Ghoshal (1998) and Tsai (2001) consider individuals capacity to contribute to planning and decision making is an essential ingredient of creating the conditions for effective learning and innovation and as, such should be supported throughout this process.

Research from the Center for Effective Organisations (1998) further suggests embedding learning processes into the transition process will aid act as a mental model and can establish employee involvement as a standardised mode of operation. Given the original goals of WwW as a driver of flexibility, collaboration, learning and knowledge, this appears to be a missed opportunity.

Organisation Two

Hitt (2005) considers that a learning organisation strives for excellence, continually trying to improve. Senge (1994) terms this a 'task culture'. Lassey (1998) suggests this can be achieved through adapting traditional working practices, which is clearly evidenced in the above statements. Albury (2005) additionally considers bureaucratic boundaries disable and stifle innovation. There is evidence that bureaucratic boundaries, such as expecting staff to operate from fixed locations, have been removed.

It is evident that this has increased self initiative, teamworking and subsequent innovation. Senge (1994) would consider this to be a changed mental model.

Almost all respondents in some way discussed the influential role played by the Chief Executive in promoting the vision and mission of the organisation, often referring to him by his first name. This confirms his pivotal role in creating the conditions for effective learning (Millett, 1998; Richter, 1998; Elkjaer, 1999) and creating a shared vision (Lasseby, 1994).

6.2.5 Induction

Organisation One

Findings suggest no specific development programmes were initiated to support the WwW process.

Whilst centralised support was available to assist with the move process and subsequent new operating practices, guidance for managers and their teams was absent. Cummings and Worley (2009) highlight the importance of developing new competencies and skills of all organisational members. Becker and Steele (1995) particularly cite the need for management development when moving to new workplace structures, focusing upon new methods of leadership, communication and power relationships.

A risk associated with not paying attention to this development process would be non-compliance with the principles of WwW and return to old behaviours (Cummings and Worley, 2009). Evidence of this can be seen in later findings.

Organisation Two

Unlike organisation one, the statement from respondent C23 (c1) clearly indicates a planned development programme has been established to further articulate the culture and aspirations of the organisation. As such, individual capability has been enhanced in order to facilitate learning (Nahapret and Ghoshal, 1998, Tsai (2001). Such an approach further shapes mental models and, through improved access to networks, enhances shared vision and team learning (Senge, 1994).

6.2.6 Pilot Office

Organisation One

Whilst findings provide clear evidence that a pilot office was developed and feedback both encouraged and acted upon, there is a suggestion access to the pilot space was limited and emphasis placed upon facilities such as layout, storage etc. Little emphasis has however been made upon articulating the wider aims of WwW. Greater emphasis could have been given to how space could be used as a tool to aid interaction, teamworking and learning.

Whilst tours of completed space do not allow for a prolonged stay, they have clearly provided employees with reassurance and a subsequent opportunity to contribute to the design and planning process. This supports the work of Becker and Steele (1995), who discuss the need for employee participation and subsequent development individualised strategies rather than a one size fits all approach.

Findings further suggest some employees were not aware of the pilot office. Further probing notes that these individuals were neither offered tours, nor invited to be part of the planning process. Both participants work in operational areas in which management led the WwW change process.

Organisation Two

Findings from respondents such as C25 (f1) suggest whilst one purpose of the pilot office was to introduce organisational members to the new workplace layout, significant emphasis also appears to have been made upon preparing staff for the organisational re-engineering and cultural change which formed an additional element of WwW (Fisher, 2009). Statements such as “identifying new ideas and ways of working “we worked on things together” and “much more collaboration and far closer to our managers” (see appendix six) suggests leaders have spent time articulating the mission and vision of the new style workplace, reshaped functional alignments (Clegg, 1999) and encouraged greater co-operation with staff (Gill, 1998).

However, statements from management grades (respondent C26 (g1)) such as “there is also an expectation we involve everyone in everything” and “there is much more communication now” further supports the conclusion that whilst the vision for a new style organisation was clearly articulated to managers, issues of over communication as discussed by Brookes and Kaplan (1972) and the stresses created by an increased performance management culture within the public sector (Osborne and Gaebler, 1994; Godfrey, 1994) are also barriers to fulfilling the vision.

The conclusions drawn by Sennett (1998) who considered increased flexibility can often confuse and frustrate employees is also indicated by respondent C26 (h1). Fredrickson (2000) further notes the need for routine and ritual by public sector employees who have been entrenched in bureaucratic cultures.

Additional findings highlight the pilot office identified concerns relating to potential non territorial working and working beyond traditional boundaries. However, it is clear such employee participation in the design process has allowed for information to be solicited from users which has subsequently been used to review and change plans. This suggests the organisation has adopted a culture of open communication, trust and respect throughout the design stage (Fisher , 2009).

6.2.7 Participation

Organisation One

Findings suggest workplace redesign has led to increased collaboration and team working within certain areas of the organisation. The most commonly cited benefits related to improved communication between team members and closer relationships with managers. Mapping such findings against the characteristics of a learning organisation developed by Lassey (1998), it can be considered there has been some adaption of working practices and some continual review. Analysing these findings against the model of a learning organisation developed by Hitt (1995) we can note some evidence of a move toward dynamic structures and improved team collaboration.

Comments such as that from respondent C14 (J1)) further suggests evidence of enhanced cross-functional team working as a result of removing physical boundaries and encouraging greater collaboration. This supports the work of Alavi and Leider (2001) who stress the importance of creating an environment which brings knowledgeable individuals together in a collaborative way so that knowledge can be shared.

However, Gill (1995) cites co-operation and engagement with staff as a key driver of learning. Furthermore, Millett (1998) considers that a leader must encourage and facilitate learning and be a team player themselves in order for new ways of working to become embedded. They further note the need for managers to lead by example and create an environment of intellectual inquiry in which the pursuit of knowledge becomes the norm.

Additional findings suggest the extent to which participation is encouraged is determined by the manager(s). There is evidence of a controlling form of management (Hitt, 1995, Lassey, 1998) in some areas of the organisation, in which knowledge is considered power and decision making ability is determined by status and expertise (Hitt, 1995). This suggests hierarchical blockages have not been effectively removed (Moran and Ghoshal, 1996) and a highly mechanistic approach remains (Burns and Stalker, 1961). Such reluctance from managers to create an empowered environment may be due to a lack of planned leadership development (Du Plessis, du Plessis and Millett, 1999), or may simply be control measures in place by those in authority who see empowerment as a threat to their legitimate power (Rose, 1999, Ceserani, 2004).

The issues of performance measures and well defined systems hindering collaboration and experimentation (Bichard, 2009; Minogue, 2001; Osborne and Gaebler, 1994; Godfrey, 1994; and Fry and Griswold, 2003, are further identified in findings from respondents such as C15 (1).

Furthermore, issues of role and expectation are highlighted in findings from a range of operational staff, such as respondent C11 (m1). This supports the work of Legge (1995) who argued that continual innovation and participation is often unrealistic in routine operations, she further notes that many employees prefer clearly defined roles and controlled communication. Sennett (1998) gained similar findings in his study of a Greek bakery in Boston which highlighted that greater levels of participation often led to role-uncertainty, confusion over levels of freedom and frustration at the changing scope of their job roles.

Additionally, Cummings and Worley (2009) note the need for organisations to develop strategies to ensure momentum is sustained once the organisational changes have been implemented. Findings such as that from respondent C16 (n1) demonstrate a return to old behaviours by managers. A process to reinforce the benefits of participation achieved during the change process may have facilitated maintenance of such an approach.

Organisation Two

As in organisation one, findings suggest that improved internal networks and participation (Wallace, 1998; Applebaum and Batt, 1994) have occurred as a result of workplace redesign, again supporting the conclusions drawn by Alavi and Leider (2001) relating to the role of environment and knowledge sharing. Considering the learning organisation models discussed in this study, these findings further suggest the characteristics of a dynamic and cross functional structure (Hitt, 1995), which encourages experimentation, review and suggestions from organisational members (Lasseby, 1998).

Using Senge's (1994) model as a frame for analysis, statements such as that from respondent C23 (p1) suggest enhanced personal mastery and opportunity for team learning. Furthermore, terms such as "we work much more with others in and outside of our team" suggests the development of a task culture, enhancing opportunities for systems thinking. The statement "the design has enabled this in my opinion" additionally draws a link between the physical space and changed mental models.

6.2.8 Leadership

Organisation One

Respondent findings highlight that WwW has brought about a change in the leadership style within a range of predominantly central functions.

There is evidence of enhanced team spirit gained through improved network opportunities (Covey, 1992) and greater confidence in subordinates (Gill, 1998). Terms such as 'far greater opportunity to contribute' suggests leaders listen and value staff comments more readily (Gill, 1998), and the phrase 'yesterday we spent a lot of time look at my personal development' highlights a move towards a coaching-focused style.

In these instances there is little evidence to suggest close proximity to managers leads to low motivation and a fear of scrutiny (Dean, 1977).

However, findings from those working in the routine or process focused sections of the organisation highlight a different picture, with considerably less opportunity for interaction with leaders. Leaders remain physically removed from their staff and do not appear to facilitate learning (Reschenthaler and Thompson, 1998; Millett, 1998). A command and control (Lassey, 1998, Hitt, 1995) style is maintained with the principles of hierarchy and expertise (Beetham, 1987) evident through such a physical distance between leaders and subordinates. Furthermore, terms such as “I don’t really have much to do with my manager” suggest impersonality (Beetham, 1987).

Once again reference to achievement of targets is prominent, suggesting a continued emphasis upon performance management and efficiencies (Bichard, 2009; Minogue, 2001; Osborne and Gaebler, 1994; Godfrey, 1994 and Fry and Griswold, 2003).

Lassey (1998) suggests a key barrier to creating the learning organisation is that of a blame culture. This builds on the work of Senge (1997), who considers that leaders should be handed greater local responsibility. Comments from respondent C110 (t1) suggest leaders within the routine or process-focused departments are governed by highly mechanistic and centralised systems (Burns and Stalker, 1961), which appear to prevent opportunities for experimentation and risk taking (Lassey, 1998).

Furthermore, Bichard (2009) considers unnecessary administration can become one of the most detrimental barriers to creating the learning organisation.

Rossiter (2007) additionally notes the issues of grudging or non-compliance and suggests leaders who may feel threatened by new ways of working may refuse to adopt new practices or highlight dissatisfaction. The suggestion from C16 (u1) “others will chat all day” implies a reluctance to allow spontaneous interaction and a need for control.

Many findings, however, suggest that leaders in a number of areas, particularly central functions, have embraced new working practices as a result of WwW. Open and honest communications, showing confidence in employees, listening to and valuing staff comments, co-operation, empowerment, member participation and flexibility in working practice is evident (Gill, 1998; Clegg, 1990; Wallace, 1998; Applebaum and Batt, 1994). This suggests the principles of postmodern management have been adopted. With regards to the characteristics of a learning organisation, we can observe evidence of personal mastery (Senge, 1994), through individuals being encouraged to use their own initiative. The adoption of open communication, shared decision making and freedom given to individuals to move around the building presents a clear mental model of devolved power (Godfrey, 1994; Sullivan, 2005; Fry and Griswold, 2003 and Lassey, 1998).

The collaborative negotiation of ground rules further suggests evidence of a shared vision (Lassey, 1998), and the encouragement of interaction and movement suggests the creation of a team learning environment. However, in support of the conclusions drawn by Weeks (1980), there is evidence of a need for leadership development in relation to postmodern approaches to management.

Organisation Two

Statements such as that from respondent C26 (x1) suggest leaders have embraced the change in approach, essential when creating the conditions of a learning organisation. Using the model developed by Gill (1998), there is evidence of showing confidence in and co-operation with employees.

This suggests a coaching and development approach, as discussed by Lassey (1998), or facilitative management style as noted by Hitt (1998). Further investigation ascertains the term 'freedom with focus' was promoted throughout the organisation as part of a leadership development programme.

This clear message indicates senior executives have facilitated a move towards a learning environment (Richter, 1998; Elkjaer, 1999), which in turn is considered will enhance opportunities for personal mastery and shared vision (Senge, 1994).

The positive influence and role of the then chief executive features significantly throughout all participant interviews. This supports the conclusions drawn by a range of writers (Brown and Eisenhardt, 1997; Kotter and Schlesinger, 1979; Dent and Goldberg, 1999; Kotter, 1994) who note the importance of such physical and cultural change being driven from the organisation's most senior team. Terms such as 'cascaded down to all of us' further indicates there has been access to information and potential information blockages removed (Moran and Ghoshal, 1996). This style of management further embeds a culture of involvement (Hitt, 1995) and collective dialogue (Rossiter, 2007), enhancing opportunities for personal mastery, team learning, shared vision and systems thinking (Senge, 1994).

In comparison to organisation one, there was only one indication of grudging compliance to the new working environment (Rossiter, 2007). Whilst it supports the conclusions drawn by Dean (1977), relating to resistance to open plan working from managers, it more importantly highlights the positive effects of making everyone aware of the rationale and drivers behind the change (Cummings and Worley, 2009; Elkjaer, 1999)

The terms 'empowerment' and 'trust' emerged on a number of occasions during interviews with employees.

This suggests the reliance on command and control styles of management and clear lines of demarcation as characterized in organisations adopting public administration models of management, have been superseded with what Vos and van der Voortd (2002) term an 'ecosystem' whereby management leaves the 'how' and 'where' more and more to the staff members themselves.

The statement from respondent C22 (b2) additionally suggests that benefits of closer proximity between managers and subordinates have been achieved as a result of workplace redesign (Szllagyi & Holland, 1980; Becker, 1981; Keller and Holland, 1983). An outcome of such proximity changes are greater devolution of power (Lasseey, 1998) and involvement (Hitt, 1995), with subsequent conditions of shared vision, personal mastery and team learning (Lasseey, 1994).

6.2.9 Communications

Organisation One

Responses such as that from participant C16 (c3) supports the findings of Dean (1977), Hundert and Greenfield (1969), Clearwater (1980) and Sundstrom (1986) who ascertained the common issue of distraction created as a result of open plan and close proximity working.

However, whilst there is clear evidence that informal communications between managers and subordinates has improved as a result of NTW, analysis of these findings note some issues in relation to role and status. The need for distance emerges as a common theme, supporting the findings of Dean (1977), Clearwater (1980) and Sundstrom (1980).

Subordinates in particular note the improvements to internal communication as a result of closer proximity to management and access to informal meeting space.

This supports the work of Brennan and Chugh (2002), Ward and Holtham (2000), Becker (1981), Szllagyi & Holland (1980) and Keller & Holland (1983). However, the comment that in one instance, the manager does not always sit with her team (respondent C18 (e3)) and another that communication with senior managers remains infrequent, suggests different conditions exist depending upon status.

Sundstrom (1986) considers this will form a visible barrier to learning and reflects the modernist, bureaucratic organisation. This in turn provides a clear mental model of the traditional organisation (Lassey, 1998; Senge, 1994). Furthermore, Becker and Steele (1995) suggest an essential ingredient of creating a shared vision is access to and ongoing communication with senior managers within the organisation whose role is to lead by example.

Steele (1973), Becker (1995) and Duffy (1997) further note the role of common space as a facilitator of workplace communication and subsequent learning. The quote from respondent C16 (f3) additionally suggests new workplace design has encouraged informal communication, however, the extent to which this is work related remains unknown. This supports the findings of Campbell (1998) who considers much colleague interaction remains social rather than work related.

Whilst findings generally confirm communication within the organisation has improved, as discussed by Dean (1977), communication can often be seen as irrelevant and confuse job boundaries. There is an indication that communicating messages that are clearly outside the scope of employees, particularly those who undertake a repetitive or administrative function, can become an interruption or a cause of worry. The issue of rigid performance management systems (Godfrey, 1994) also allows for less creative space and as such increased communication can become an unnecessary distraction.

Organisation Two

The majority of respondents discussed positively the increased opportunities for informal communication as a result of workplace redesign.

Whilst all specifically highlighted improvements in terms of familiarisation with colleagues, more detailed comments such as the statement from respondent C24 (g3) suggest such interaction has allowed for greater suggestion, routine review, experimentation and adaptation of working practices (Lassey, 1998).

This indicates systems thinking, team learning and greater degrees of personal mastery (Senge, 1994).

Responses such as that from C22 (h3) additionally support the conclusions drawn by Brennan and Chugh (2002), Ward and Holtham (2000), Becker (1981), Szilagyi & Holland (1980) and Keller & Holland (1983), each of whom note enhanced formal and informal contact between managers and subordinates as a result of workplace redesign.

However, more significantly, this statement discusses specifically a change in perceived hierarchy and as such suggests impact upon structure (Hitt, 1995) and power relationships (Lassey, 1998). The conditions of postmodern management practice as discussed by Clegg (1999) are apparent further highlighting changed mental models (Senge, 1994).

The role of planned staff development in changing mindset and established practice further supports conclusions drawn by Weekes (1980) and more recently by writers including Becker and Steele (1995) and Cummings and Worley (2009).

As with organisation one, the issue of over-communication and relevance of communication is noted. This particularly supports the findings of Hundert and Greenfield (1969), Brookes and Kaplan (1972), Clearwater (1980) and Sundstrom (1986). Indeed, it is particularly the issues of relevance of communication and an assumption that individuals wish to be involved and encouraged to suggest and review. Interestingly, junior members of staff such as Administrative Assistant grades are more positive about greater levels of communication and perceived involvement, than those in more senior roles.

Further probing suggested concerns of the blurring of job roles and increased workloads. This supports the criticisms of flatter organisational structures as discussed by Sennett (1998).

The WwW model notes the importance of improved use of information and communication technologies (ICT) as a driver of openness, communication and collaboration. This is supported by Becker and Steele (1995). Whilst findings recognize the investment made in ICT, terms such as “some of it is pointless mind” further suggest an issue of over-communication and the subsequent problems of relevance. Management has, however, further noted the limitations of ICT as a barrier to face to face communication and promote the benefits of face-to-face interaction as a preferred approach. This supports the benefits of face-to-face interaction over other methods discussed by Becker (1981). Additional comments such as that from respondent C22 (k3) provide further evidence of opportunities for improved communication and interaction as a result of increased social and open-plan working space.

Such social interaction is cited as an aid to team working, thus suggesting enhanced team learning (Senge, 1994) and encouragement of suggestion (Lasseby, 1998).

Fry and Griswold (2003) note that barriers to learning in public sector organisations are often due to reluctant leaders who fear loss of power or status. Senge (1997), Richter (1998) and Elkjaer (1999) consider such problems can be alleviated by executives acting as mentors to reassure and reduce resistance.

However, Hynd (2003), Mawson (2003) and Legge (1995) suggests such reluctance may be due to the activities undertaken within the function noting leaders often resist the encouragement of innovation due to the routine nature of the tasks involved.

The response from C25 (l3), an operations team involved in routine procurement activities, may support these conclusions. Additionally, with increased procurement guidelines and centralized government purchasing activity, a further explanation for the more traditional operating environment may be the restrictions imposed as a result of clear performance management controls and limited opportunities for experimentation (Osborne and Gaebler, 1994; Godfrey, 1994).

6.2.10 Creativity

Organisation One

Minogue (2001) considers that innovative organisations will emphasise the need for results rather than following process and procedure. Furthermore, Rose (1999), Bos and Wilmott (2001) and Ceserani (2004) note the issues of control measures inhibiting creativity. The statements given suggest that the proliferation of performance regimes, control measures and hierarchy continues to stifle opportunity for suggestion and creativity in some routine or process-focused areas of the organisation.

Additionally, leadership style and job function is a factor in determining the level of freedom and creativity afforded employees. This further supports the findings of Greener (2009) who cites status, entrenchment and management power as an inhibitor of innovation, whilst Peterson (2009) refers to the issues of rigid and hierarchical structures and a rule based environment. Bichard (2009) additionally refers to the need to shift away from a culture of central targets and administration in order to encourage innovation and creativity within public sector organisations.

However, statements such as those from respondent C111 (p3) demonstrate that WwW has contributed to the achievement of a community favouring innovation (Piore and Sable, 1984). Peterson (2009) considered a change in leadership style was fundamental in creating such conditions.

Such findings further support the conclusions drawn by Campbell (1988) who notes the role of the manager in facilitating learning within communal space, Gill (1998) who discusses the importance of leaders listening to and valuing staff comments; and Harrison (2002) who cites the relationship between leader and learning organisation characteristic of team learning (Lasseby, 1994).

Organisation Two

Regular use of terms such as 'encouraged', 'empowered' and 'expected' highlight organisational members have opportunities to experiment, make suggestions and take risks (Lasseby, 1998). It is further evident that traditional boundaries have been removed (Hitt, 1995), creating conditions for team learning, systems thinking, personal mastery and shared vision (Senge, 1994).

Whilst physical artifacts are cited as an enabler of the culture, it is evident from these findings that innovation occurs from more than layout alone and wider organisational development has to take place (Kanter, 1989; Peters and Waterman, 1982).

However, whilst responses such as C24 (r3) indicate opportunities for employee suggestion exist and senior leaders are attempting to facilitate a learning environment, the concerns of Peterson (2009) and Gill (1998) relating to the importance of leaders listening to and valuing staff comments are reinforced. If organisational members believe ideas are being ignored and mechanisms are not implemented to recognize contributions to the learning process, individuals will withdraw their support. Peterson (2009) particularly calls for increased managerial leadership within the public sector if employees are to contribute to the innovation agenda.

Furthermore, comments such as that from respondent C25 (s3) supports the conclusions drawn by Sennett (1998) who considered employees do not necessarily welcome opportunities to increase personal mastery.

Hancock and Tyler, (2001) further support these conclusions, noting that employees can often feel overwhelmed by the additional responsibility of empowerment and wider involvement in the decision making process, particularly when such initiatives have never been considered an expectation of their role.

6.2.11 Issues

Organisation One

Writers including Bichard (2009), Minogue (2001), Osborne and Gaebler (1994), Godfrey (1994) and Fry and Griswold (2003) have noted the learning and innovation barriers created through the proliferation of performance measures and well defined systems within public sector organisations. Statements from respondents such as C110 (y3) provide clear evidence that such regimes stifle learning organisation characteristics, particularly within the operational functions. Furthermore, the existence of modernist management practices such as inflexible role relationships and command and control based management remain in place in some areas of the organisation.

Responses such as C15 (z3), C16 (a4) and C12 (b4) further suggest whilst communal space has been provided as a means of encouraging informal communication the need to make this accessible to all may have not been adequately addressed. Wicker (1979) notes the need for the organisation to ensure such space is accessible.

When considering Systems Thinking, Senge (1994), notes the problems of being inflexible and creating unnecessary, top down, rules. He considers that this discourages co-operation and innovation. Furthermore, Osborne and Gaebler (1994), cite over-use of rules as an inhibitor of personal mastery. Whilst it is accepted clear desk policy is an integral feature of NTW, findings such as those from respondent C13 (c4) suggest local, mutually agreed clear and simple systems (Tenkasi, Mohrman and Mohrman, 1998) have not been established, thus resulting in low motivation of workers (Rose, 1999).

Furthermore, whilst writers including Tenkasi, Mohrman and Mohrman (1998) discuss the benefit of localised interpretations of rules and procedures, it is essential organisational members to return to old behaviours (Cummings and Worley, 2009).

Comments such as those provided by respondent C17 (d4) provide evidence that, unless reinforced by senior management, cultural changes will not become embedded within the practice. As a result there will be confusion and unrest between colleagues, particularly when some are seen to be disadvantaged.

Finally, a number of issues relate to the style and practice of leader. Du Plessis, du Plessis and Millett (1999) note the need for a revision to the style and role of leaders when facilitating a learning culture. Millett (1998) further highlights the need for leaders to be team players themselves, and Weekes (1980) reinforces the requirement of planned leadership development to enable new management practice. Statements suggest further investment in management development and changing management attitudes is required if a learning culture is to be embedded.

Organisation Two

Despite an identical question frame, respondents from organisation two cited the change process continually throughout discussions. Again, the chief executive was regularly named as a facilitator of the change, and change agents were referred to in a highly positive manner.

Statements such as those from respondents C23 (j4), C28 (k4) and C22 (l4) confirm the inclusive and comprehensive nature of the change process. Reflecting upon the change considerations cited by Becker and Steele (1995), Fisher (2009) and Cummings and Worley (2009), there is clear evidence of explanation of purpose, creating a vision, commitment of the leader, education and training, open communications, participation and motivation.

A common response was that from respondent C28 (m4) who noted the changing nature of many public sector roles, particularly highlighting the need for cross-functional working as a basic assumption.

This suggests a move towards task cultures (Clegg, 1990) and an environment of task accomplishment (Becker and Steele, 1995) in which the physical design of an organisation can facilitate the achievement of tasks. The statement given suggests such an environment has been created in which a range of high quality workspace has been created. Furthermore, terms such as “no one seems to worry” indicates increased opportunities for personal mastery (Senge, 1994) and more dynamic structures, which demonstrate devolved power and greater confidence in employees (Hitt, 1995; Lassey, 1998; Gill, 1998).

Whilst findings from organisation two indicate a clear understanding of the organisation’s vision and desired working style, barriers emerge. Supporting the conclusions of Bichard (2009), Minogue (2001), Osborne and Gaebler (1994), Godfrey (1994) and Fry and Griswold (2003), the proliferation of performance measures and emphasis upon efficiency measures emerging from central sources act are again cited as an inhibitor to the conditions required for learning (C25 (n4) and C24 (o4)).

The importance of induction and cultural adaptation emerged as a common point of discussion. This can be noted in the statement from respondent C24 (p4). Indeed, this statement makes a number of interesting points. Firstly, it confirms a detailed programme of induction is in place to encourage shared vision (Millett, 1998; Senge, 1992), however, such an approach may be inadequate to indoctrinate new employees to the postmodern principles adopted within the organisation particularly when they have experienced a number of years in more traditional operating environments. Phrases such as “this place is very different to your normal public employer and you don’t really realize it until you join” suggest greater consideration could be placed on identifying appropriate candidates to work in such an environment during the resourcing stage, rather than rely solely on induction.

However, further supporting the findings of Godfrey (1994), comments such as those from respondent C28 (q4) highlights frustration at the conflicting messages emerging from the separate innovation and efficiency agendas.

This supports the concerns of Peterson (2009) and the National Audit Office report 'Innovation Across Central Government', (2009), both of which cite the barriers caused by rigid and hierarchical structures and rules-based environment emerging from central sources.

6.2.12 Non Territorial Working and Clear Desk Policy

Organisation One

A number of comments, such as those from respondent C110 (r4) support the findings of van der Voordt (2004, p240) who notes issues relating to reduced work satisfaction because of loss of status, privacy, territory and identity.

Van der Voordt (2004, p240) further highlights the issue of reduced productivity caused through repeated log in and set up/clearing activity. This becomes particularly problematic in areas where the wider benefits of NTW/Nomadic working are not encouraged and as such, organisational members do not relate to the purpose of this approach. Responses such as that from respondent C110 (s4) suggests leaders may not have effectively sensitized employees to the change (Cummings and Worley, 2009).

However, many respondents, such as that from C17 (t4) provide clear evidence to support the conclusions drawn by Elsbach and Bechky (2007 p80) particularly improvements relating to spontaneous and informal information sharing, increased management interest in the development of subordinates, enhanced opportunities for relationship building, improved opportunities for creativity and better networking.

Additionally, they suggest changes in workplace design have enhanced opportunities for team learning, mental models, shared vision and systems thinking (Senge, 1994). Team learning is evidenced though indication of free and collective dialogue between members (Rossiter, 2007), and personal mastery is verified through practice of delegation, opportunities for empowerment and individuals to use initiative freely (Fry and Griswold, 2003).

The removal of physical barriers and greater socialisation between management and subordinates promotes a new mental model which is evidenced in terms such as 'I'm loving it' and 'there is so much energy on the floors' (see appendix six). Shared vision and systems thinking is evidenced through opportunities for organisational members to contribute ideas and shape practice within teams.

Relating these statements to the models of Lassey (1998) and Hitt (1995), it can be suggested that NTW has contributed to conditions of a facilitative/developmental management style, involved/devolved power relationship, greater acceptance of suggestion and experimentation and significantly fewer boundaries.

However, it must also be noted that these conditions are evident in only two teams, both of which are strategic in nature. This further suggests functions that are more routine or process-driven are less likely to enable conditions for learning.

Further analysis suggests findings from strategic-focused teams provide evidence of learning, whilst research participants from operational teams offer less enthusiasm, suggesting functional difference (Haynes, 1980).

The operational teams appear to operate more traditional practices relating to efficiency, effectiveness, control and top-down action planning (Hitt, 1995). This would support the conclusions of Bichard (2009), who considers the extent to which an organisation can innovate is related to the nature of their work.

Furthermore, the WwW initiative places high emphasis upon the design and ambience of the workspace as a driver of individual wellbeing and subsequent productivity. Brookes and Kaplan (1972) and Davis (1984) consider that stored information is a key source of power and provides a physical indicator of control and status.

Findings such as those from respondent C18 (v4) demonstrate significant efforts were made across the organisation to remove the physical barriers created by paper, however, they also suggest such activities acted as an opportunity to change expectations (Becker and Steele, 1995) and manage the transition (Cummings and Worley, 2009) through team activities.

However, a number of fears existing, and common statements emerged relating to the lack of information released regarding the purpose of NTW and the subsequent impact upon individuals' acceptance of the change. The words 'fear' and 'worry' emerged on several occasions from participants across the organisation. This suggests insufficient sensitization to the change (Cummings and Worley, 2009) and inadequate development of clear and simple systems to guide individuals through the new ways of working (Tenkasi, Mohrman and Mohrman, 1998). As a result, shared meaning and commitment was stalled.

Organisation Two

Whilst organisation two neither adopted a clear desk policy or NTW, these principles clearly formed part of the pilot process. Statements such as that from respondent C26 (y4) support the conclusions drawn by Hundert and Greenfield (1969) and Brookes and Kaplan (1972) relating to the commonly cited causes of resistance such as storage and confidentiality, alongside those of Davis (1984) who cited the need for symbolic artifacts such as personalized workspace. Notably, the pilot process has provided an opportunity for organisational members to engage in the design stage and inform outcomes (Becker and Steele, 1995; Kotter and Schlesinger, 1979; Armenakis, Harris and Mossholder, 1993).

Such involvement further reinforces the commitment towards shared vision and participatory decision making.

6.2.13 Boundaries

Organisation One

A number of statements, such as those from respondent C111 (z4) indicate NTW has enabled modifications to the traditional bureaucratic boundaries which characterised public services.

Adaptive working practices (Lassey, 1998), such as greater collaboration with senior staff and increased informality, indicate more dynamic organisational structures, cross and functional teamworking (Hitt, 1995). Furthermore, the removal of interdepartmental barriers such as the way senior managers are addressed and their reverential status, suggests a change in mental model within some organisational areas (Senge, 1994).

Richter (1998) and Elkjaer (1999) discuss the important role of senior executives in influencing learning behaviour. Additionally, Millett (1998) and Senge (1997) highlight the need for managers to lead by example. Phrases such as those from respondent C16 (a5) indicate the executive have retained their cellular working space and remain removed from other organisational members. Observation highlighted that whilst the executive team have retained boundaries to separate themselves from their colleagues, they have predominantly adopted the principles and NTW. However, it could be argued that an overall lack of executive level engagement in the change programme has led to the creation of negative myths and stories. This in turn has reinforced the image of hierarchical and traditional working practices (Lassey, 1998).

Supporting the conclusions of McCauley et al (2007), local managers in some areas have retained status symbols such as arranging offices by grade, retaining their individual operating space and prescribing behaviour.

This is noted in the response from respondent C11 (b5) and suggests a retention of traditional practice, a command and control approach and potential for punishment (Lasseby, 1998).

Again, supporting earlier findings, these statements suggest the role of leader has been significant in shaping the vision and purpose of workplace redesign. Some have clearly feared loss of power as discussed by Fry and Griswold (1999), whilst others have created learning structures via facilitation (Millett, 1998), removal of hierarchical and rule based barriers (Peterson, 2009), and through improved internal network opportunities (Senge, 1999).

The extent to which such internal boundaries have been removed appears closely related to the nature of work undertaken within the responding function, the extent to which performance targets are adopted (Godfrey, 1994) and the degree to which organisational members have engaged in the change process.

Organisation Two

Statements such as that provided by respondent C25 (d5) indicates a visible change in the structure of the organisation, suggesting a move from modernist principles such as compartmentalization (Godfrey, 1994) and hierarchy (Beetham, 1987) to the postmodern characteristics of functional alignment and democracy (Clegg, 1990).

Social interaction is also clearly evident, supported by much discussion relating to a history of out of work events such as dancing, cultural trips, theatre visits and rituals such as birthday celebrations.

The comments of numerous respondents such as C23 (e5) reinforce the conclusions drawn by Schein (1997) Storey and Quintas (2001) Fredrickson (2000), Groat and Canter (1979) and Strati (1999), each of whom suggests artifacts within the physical environment provide an immediate indication of an organisation's culture.

Terms such as “free and inclusive” indicate adapted working practices, devolved power (Lasseby, 1998), involvement, dynamic structures and cross team working (Hitt, 1995), and benefits to shared vision and team learning (Senge, 1994). However, as with a number of respondents, the key frustration of performance management emerges as a significant barrier and may be stifling greater opportunities for personal mastery and systems thinking (Senge, 1994).

6.3 Analysis of Findings from Semi-Structured Interviews with Change Agents

6.3.1. Analysis of Change Process

Using the models developed by Becker and Steele (1995) and Cummings and Worley (2009), the following table compares change actions taken in both case study organisations.

Theme	Action	Organisation One	Organisation Two
Motivate Change	Sensitize organisations to pressures for change	X	✓
	Reveal discrepancies between current and desired states	X	✓
	Convey credible positive expectations for the change	X	✓
	Change expectations	X	✓
Create a Vision	Disseminate purpose and reason for change and describe the desired future state	½	✓
	Employee participation	½	✓
	Organisational leadership	X	✓
Develop Political Support	Establish change agents	✓	✓
	Encourage process versus solution approaches	X	✓
	Create temporary changes to organisational structure	X	✓
Manage the Transition	Mutually agree and communicate an activity plan	X	✓
	Commitment Planning	½	✓
	Suggestion Schemes	½	✓
	Pilot Schemes	½	✓
	Communication Processes	In latter stages	✓
	Management Development	X	✓
	Employee Training and Development	X	✓

Theme	Action	Organisation One	Organisation Two
Sustain Momentum	Reinforce desired behaviours	X	✓
	Rewards for appropriate performance	X	✓
	Ongoing induction and training	X	✓
	Mainstream change team	✓	✓
	Measure performance and impact	✓	✓
	Post Occupancy evaluation	½	✓
	Flexibility to change	X	✓

Table 22: Analysis of Change Process

Analysis of semi-structured interviews with change agents and subsequent mapping of findings against the models of Becker and Steele (1995) and Cummings and Worley (2009), notes significant differences in the way in which change has been implemented within the case study organisations.

Whilst organisation two indicates a more detailed change process, focused upon embedding wider management and cultural change, it appears organisation one has focused predominantly upon the more functional aspects of the physical move.

This is particularly apparent in the early stages of the workplace redesign process, in which organisation two placed significant emphasis upon involving and sensitizing all organisational members of the need for change. This process of unfreezing existing mental models appears to have been ignored in organisation one. As such, whereas members across organisation two demonstrated great clarity of the vision of such change, members from organisation one were unsure and demonstrated greater resistance.

Undoubtedly the personal involvement of the Chief Executive and senior team within organisation two further contributed to the embedding process, accelerated by them leading by example and adopting non hierarchical and empowering practices at an early stage of the transition period. It is evident that there was limited senior leadership involvement in organisation one and to date, symbols of hierarchy and status exist.

Both organisations provide evidence of member involvement and creation of pilot spaces, however again there appears to have been greater opportunity to avoid or have restricted involvement in organisation one, particularly for those who do not hold management positions. Involvement was more proactive in organisation two through the provision of wider team building and staff development events.

Finally, during periods of post-occupancy, there have been fewer opportunities to further embed new working practices within organisation one and organisational members have been allowed greater opportunity to return to previous modes of operation. Furthermore, whilst adoption of local procedures is accepted practice within a change process, it appears this has been more widespread in organisation one and departmental or line managers go unchallenged for non-compliance of NTW or WwW practices.

Additionally, whilst the principles of WwW are reinforced through ongoing management development and new starter induction within organisation two, the extent to which such principles are further promoted in organisation one is limited and focuses solely upon practical process such as how workspace is allocated, location of facilities and use of ICT.

6.4 Summary of Analysis

In summary, the findings from this study demonstrate three key points:

Firstly, there is clear evidence to suggest WwW can make an effective contribution to enabling the conditions of a learning organisation and providing subsequent opportunities for innovation.

Secondly, whilst WwW makes a positive contribution in creating the conditions of the learning organisation and subsequent innovation, there are a number of related factors which must be considered.

Analysis of both case studies suggests that organisations must do more than merely design their workplace as “a centre for social life” (Kanter, 1989, p285). Instead, they must adopt a range of new management approaches (Hartley and Allison, 2002) focusing upon making adjustments to embedded cultural factors. Specific factors include indicators of status, entrenchment, management power, empowerment, and communication.

Analysis further suggests the role of the leader contributes significantly to the extent to which WwW and subsequent learning becomes a cultural norm. Indeed, there is evidence to suggest that without appropriate leadership development, those with legitimate authority often fear loss of status and may resist change.

Leaders too, must act as champions, advocating the benefits of WwW and learning. Findings relating to the role of the leader in shaping vision suggest a positive relationship exists between the extent to which the senior team lead by example and subsequent acceptance by employees. Key actions required by senior leaders include the removal of unnecessary rules and procedures, providing opportunities for participation in WwW and wider decision making, building cross organisational relationships and encouraging long term intra organisational collaboration.

Introducing visible mental models of learning out with WwW, such as flatter organisational structures and realigned functional arrangements, are also necessary.

The findings further align with the contributions of Rashman et al (2009), who note a correlation between achievement of learning organisation conditions and the context in which the public agency operates. Particularly, there is evidence to suggest the organisation's mission, nature of work and degree of central government autonomy afforded to individual functions affects the level to which the principles of learning organisation, WwW and wider public management approaches are adopted.

Most notably, those functions that retain a role culture, characterized by narrow job descriptions and repetitive processed based operations are less likely to encourage learning or see the need for task reengineering.

However, most significantly, the findings suggest a significant correlation between the extent to which WwW facilitates the learning organisation and the actions taken to facilitate cultural change. Taking contextual issues into account, there is greater evidence of learning in organisation two. This supports both the learning organisation literature of Senge (1994), Hunt (1995), Deming (1995) and Millett (1998), Du Plessis, du Plessis and Millett (1999) and Workplace Design literature of Fisher (2009), Becker and Steele (1995), Toffler (1980), Nilles (1994), Duffy (1997), Thompson and Warhurst (1998), Cairns and Beech (1999) and Ward (2000). Both bodies of literature note the need for comprehensive cultural change programmes.

As such, the final point relates to the need for more comprehensive guidance relating to the process of WwW implementation.

Indeed, in considering the practical contribution of this study, it is recognised that no change model exists to support public sector organisations in their implementation of the WwW and Learning Organisation transition process. As such the following chapter will outline implications for practice as a result of this study.

7.0 IMPLICATIONS FOR PRACTICE

Given the emphasis on a professional doctorate of providing a practical contribution to organisational improvement, the aim of this chapter is to revisit the study objectives and discuss the subsequent implications in response to literature review and analysis of primary research findings.

In collaboration with the Office of Government Commerce the principle objective of this study was to draw conclusions in order to assist future workplace design strategies in response to the UK public sector goal of creating the conditions of the learning organisation across its operations.

The study was specifically designed to provide guidance to the array of public sector organisations scheduled to begin a process of workplace redesign from 2011 onwards. This will be achieved through a combination of engagement with individual public sector organisations, participation in WwW support events and the publication of conclusions and recommendations of this study which can be disseminated to the wide range of stakeholders with whom the Office of Government Commerce regularly engage.

7.1 Contribution

Given the emphasis within both literature and findings for a combined change model, the author proposes a five phase process. To ensure relevance and ease of understanding, the model has been designed using theories and frameworks relating to public sector cultural change (Miller, 1984; Cummings and Worley, 2009), workplace design change (Becker and Steele, 1995) and learning organisation change (Du Plessis, du Plessis and Millett, 1999), of which practitioners within the UK public sector are familiar. The model has been further informed by some of the approaches adopted in the case study organisations.

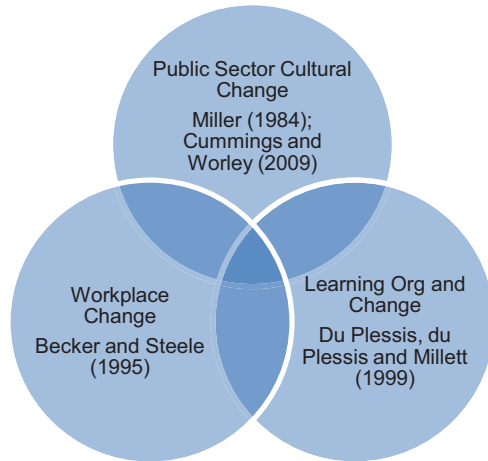


Figure 39: Summary of change models

The following illustration summarises key themes within existing change models reviewed as part of the literature review. These models are widely recognised within the public sector environment and reflected upon within a range of public sector organizational development literature and policy guidance.

Public Sector Cultural Change	Workplace Change	Learning Organisation Change
<u>Miller (1984)</u> Promoting the Cause Consensus Decisions Excellent Management Unity Ownership Performance Empiricism Intimacy Integrity <u>Cummings and Worley (2009)</u> Motivating Change Creating a Vision Developing Political Support Managing the Transition Sustaining Momentum	<u>Becker and Steele (1995)</u> System interdependency Changing Expectations The Right Technology Education and Training Performance Assessment Employee Participation Process versus Solution Approaches Organisational Leadership	<u>(Du Plessis, du Plessis and Millett, 1999)</u> Learning Structures and Systems Leadership and Teams Team Learning

Table 23: Key themes within existing change models.

7.2. Proposed WwW Change Model.

Having reviewed examples of policy guidance published by the Office of Government Commerce and other government agencies, it was considered important to follow a similar style and language in order to accelerate understanding and practicability. The use of distinct phases and stages was identified as being common practice, as is explanation in both text based and illustrative form. The following section provides a text based outline of the change model, whilst appendix five provides a conceptual illustration of the proposed approach.

7.2.1. Planning Phase

The first phase is designed to ascertain the extent to which WwW would benefit the organisation and establish senior management commitment.

Stage One

Establish the need for change. The senior management team must establish the extent to which WwW would be beneficial to the organisation and aligns with its existing or desired mission and core values.

Stage Two

Specific organisational goals of WwW should be identified by the senior management team. For example the priority may relate to creating a more efficient workspace, or generating a knowledge community.

Stage Three

The senior management team must identify a series of behavioral objectives they desire as a result of WwW. Such behaviors will reflect the organisation's mission and goals.

For example, if the characteristics of a learning organisation are key goals of WwW, some behavioral objectives may include:

- High disclosure of information between teams
- Openness to change and innovation
- A culture of continuous improvement
- Task based working
- Empowered officers.

Such behavioral objectives will provide an indication of the desired culture to be developed.

Stage Four

Once a need for, and commitment to WwW has been identified by the senior team, the organisation's mission and core values must be reviewed to ensure close alignment. Any changes to the organisation's mission and core values must be made at this stage, with appropriate consultation with key stakeholders.

These stages are worth considerable investment and attention by senior leaders as they will create appropriate conditions for implementation of WwW.

7.2.2. Data Capture Phase

Once the need to pursue WwW has been identified, the second phase is designed to enable the senior management team and their appointed design group to gain a better understanding of how the process can be implemented. This involves gathering data from various sources within and outside the organisation to define specifically what can be accomplished.

This phase will typically be led by the senior management team to ensure the desired goals and behavioral objectives are pursued.

Senior Change Champions will also be appointed at this phase. Such champions will typically have a background in facilities management and organisational development. The use of external design consultants may also be utilised. The main advantages of using external change champions are that they will appear neutral and will have specialist expertise. However, some consultants may have a hidden agenda and seek to impose a standard solution used with previous clients rather than develop a bespoke solution. Internal change agents will have a better understanding of the internal context, existing behaviors and power relations, although may themselves internally resist or be too close to the change. In either case the senior management team must choose change champions with care and create a guiding coalition.

Typical questions to be answered at this stage would include:

- What do we want from the space?
- A review of current workspace use and patterns
- Expected growth
- Other desired cultural changes
- Opportunities for shared services
- Stakeholder analysis
- Budget Constraints
- Number of people to be accommodated
- Desired communication and interaction patterns
- Adjacency requirements
- Anticipated resistance
- Potential additional champions of change.

7.2.3. Participation Phase

Once initial planning steps have been completed, the third phase commences the workplace redesign process. Given the explicit goals of WwW to promote empowerment and involvement in decision making, this process must be embedded within the design process.

Stage One - Provide Vision and Leadership

The goals of WwW must be championed to all from the very senior level of the organisation. This will provide direction, consistency and confidence in the process. The need for change must be clearly disseminated and linked to internal and external drivers facing the organisation.

Stage Two - Appoint Additional Change Champions

The senior team must appoint additional internal change champions to facilitate the redesign process. Such champions should represent all areas of the organisation. Whilst some champions will be appointed on the basis of qualification, eg facilities specialists, others should be self selecting and not reflect particular grade or status.

Change champions should possess three sets of skills:

1. A thorough knowledge of the types and techniques of change.
2. Good communication and persuasion skills.
3. Ability to manage problems as and when they arise.

The appointed champions must receive appropriate personal and professional development to develop such skills, be released from their existing roles and work alongside the senior management team in progressing the design and implementation of WwW.

Stage Three – Consultation and Participation

To ensure employee commitment to the workplace design process, a process of consultation and communication should begin, led by the senior management team and their change champions.

This stage should ensure that:

- Employees understand the rationale for the new ways of working.
- All within the organisation are able to contribute to the design process and discuss their expectations and ideas.
- A transparent process of two way communication and decision making is implemented in which employees ideas are captured and reviewed.

A key aspect of this stage is the development of a comprehensive communications strategy. Whilst high level strategic and contextual headlines have already been communicated, there must now begin a series of targeted communications to raise awareness, aid understanding, encourage engagement, gain commitment and ultimately ensure ownership of the new culture and ways of working.

Whilst a key theme of WwW is to remove hierarchy, such a process of targeted communication should begin with middle managers who will ultimately act as champions at functional and team levels. Specific attention should be placed upon communicating the desired behavioral changes and a process of training must begin to prepare all managers for these new ways of working.

Similar communications encouraging involvement in the design stage and raising awareness of redesign activity should be disseminated to all across the organisation. In order to promote the desired new behaviors, face to face communication should be adopted wherever possible.

Emphasis should be placed upon desired new behaviors as a result of WwW rather than the physical design process.

Other methods such as action research, team building exercises and process consultation can be used to encourage participation.

Stage Four – Create a Brand

The creation of a distinct brand or identity for the workplace redesign will help distinguish the importance placed upon the project and add consistency to the communications. This brand should communicate all of the desired behaviors anticipated from WwW and to further encourage engagement may emerge from an internal design competition.

Stage Five – Encourage Innovation

Workplace pilots can be used to encourage ideas and design innovation, whilst also enabling employees to become more familiar with the workplace concepts and behavioral practices desired as a result of WwW. Space should be created to allow employees from across the organisation to experience potential new design arrangements and ways of working, and ultimately influence final design and detail.

The pilot phase should allow individuals from across the organisation to positively and effectively exploit new working practices, develop new protocols and procedures and act as ambassadors of cultural change.

All employees should be invited to visit and/or use the pilot space and feedback clearly disseminated and acted upon.

Senior management teams should be visible within the pilot area.

Stage Six – Learn from Others

Visits to other organisations, who have already implemented WwW or similar workplace redesign can also be a useful way to aid the design process, as well as enlightening and gaining employee commitment.

Stage Seven – Personal Motivation

Change is typically stimulated by personal incentive and, as such, it is important that the direct or indirect benefits of WwW are communicated to employees at an individual level. Given the level of behavioral change desired, individual mindsets must be changed, at all levels of the organisation. This can be facilitated through a range of one to one communications, coaching activity, and wider individual and management development.

7.2.4. Implementation Phase

Once data from the participation phase has been gathered and collective decisions made, the process of implementation can begin. In reality the process of behavioral change will be at an advanced stage as new ways of working should have been promoted since day one, however, it is now the role of the change champions and management teams to facilitate the physical redesign process.

Stage One – Articulate the Shared Decisions

Given the emphasis upon interaction and shared decision making within WwW, all organisational members must be made aware of the collaborative nature of the design process. Such mutually shaped design can aid commitment to the process of change.

Stage Two – Establish Local Arrangements

Whilst much of the design phase has concentrated upon developing new corporate systems, opportunity should also exist for local adaptation of these protocols to be made.

These will be made in consultation with the senior management team to ensure there is no significant contradiction with organisational mission, values or goals of WwW.

Stage Three – Declutter

To encourage interaction, empowerment, team development and information sharing, a process of decluttering must begin. This can often take the form of a declutter day which can further promote the team development process.

Stage Four – Embrace Technology

A key ingredient of new working environments is the adoption of new ICT, particularly to encourage the paperless office and enable new work practices such as hot desking, non-territorial working and homeworking. All employees should receive appropriate development in the use of such technologies prior to implementation and be encouraged to utilise them fully.

Stage Five – Embed New Protocols

The desired new behaviors and ground rules of WwW must be embedded prior to implementation. Whilst formal training may form part of this process, other, less formal approaches, such as team development days and social events will provide opportunities to further promote group interaction, cross functional working, idea generation and a new style of leadership.

Stage Six – Facilitate Implementation

The change community must be on hand to ensure the physical move is successful. Their role is to provide guidance throughout and signpost individuals to appropriate sources of information or support as necessary.

7.2.5. Review Phase

Once the workplace redesign has been implemented a process of aftercare and review must begin. In this phase it is particularly important that the change programme continues and the process of embedding cultural change is further facilitated.

New working practices, processes and behaviors must be reinforced and support and guidance offered to ensure employees do not revert to old practices.

Short term visible wins should be identified, for example, promoting positive results as a consequence of WwW. Such gains can ensure greater credibility of the initiative.

The provision of ongoing change champions is essential and formal and informal reviews must be implemented to understand the progress, learning and benefits achieved. Such review may take the form of post-occupancy survey, employee appraisal and the establishment of a post WwW focus group.

The findings of such reviews should be used to refine new workspace or working practices, challenge non compliance with desired new behaviors and offer increased support or development where required.

Finally, the new ways of working must be anchored in the organisational culture. In other words, efforts must be made to ensure the next generation of employees understands the behaviors and norms within the organisation. This requires a process of leadership succession and ongoing development activity in the form of management development and induction.

7.3. The Role of Leadership

Alongside the five phases, leaders at every level of the organisation play a pivotal role. Primarily, they will be involved in setting direction, communicating policy, defining key tasks and challenges, establishing and promoting new behaviors and protocols, modeling culture, encouraging engagement, monitoring participation, leading implementation and tracking results.

In preparation for these roles, investment must be made in developing leaders in all aspects of design, organisational culture, leading change and creating conditions for desired new behaviors.

Furthermore, given the significant change in leadership approach as a result of WwW, a process of individual guidance and role negotiation is important. This would involve establishing new leadership expectations and unfreezing established practice.

7.4. Employee Development

Implementing any new ways of working requires the support of those it will affect. As such, all organisational members with ongoing training provision throughout and beyond the change process is essential. This should relate to the development of new operating behaviours, as well as how to work and use new technologies.

Six levels of development should be adopted: Senior Team Development, Change Champion Development, Middle Manager Development, Team Development, Individual coaching and ongoing induction.

Significant investment in team development is essential to break down existing barriers and improve opportunities for interaction. Such a commitment to development is likely to foster employee support and provide an opportunity to identify potential problems.

7.5 Summary of Chapter

This chapter has presented the practical contribution of this study. The justification for this contribution is based on both identified gaps in literature and analysis of primary research findings. Careful attention has been paid to ensure the contribution is both understandable and relevant, and as such to facilitate this, the author has adopted terminology from change models and frameworks recognised within the public sector, as well following the style and structure of similar government policy guidance. An opportunity to disseminate these practical guidelines, alongside a wider summary of the study has been identified with the support of the Office of Government Commerce. In addition further contributions to both policy makers and the authors own professional development has been identified. Such further contributions and a summary of the study will be presented in the following chapter.

8.0 CONCLUSIONS AND REFLECTION

The final objective of this study was to draw conclusions and reflections of the study. As such, this following section concludes the study, presenting an overview of the main literature, findings and contributions. Some limitations of the research, suggestions for future investigation and a review of the author's research journey will also be discussed.

8.1 Overview of the Study

This main objective of this study was to establish the extent to which the WwW model has facilitated learning through workplace redesign. This would be determined by exploring the degree to which two organisations had adopted the principles of the learning organisation – a desired outcome of the initiative.

The study further aimed to identify models of best practice and barriers to learning as perceived by building users.

The research process involved a number of stages. Firstly, the author considered it important to better understand the context in which WwW was initiated. This involved a review of policy and practice in relation to the UK government's modernization agenda and specific goal of enhanced interactive behavior, innovation and knowledge creation within departments and agencies.

In order to more comprehensively understand property strategy within public organisations, the second stage of this study involved a review of practice and literature relating to models of workplace design within the sector. In mapping this evolutionary process, the seminal work of Becker (1995), Becker and Steele (1995 and 2004) and Duffy (1976, 1992 and 1997) were explored in order to better understand the founding principles of WwW.

It became apparent that the practical models of Becker (1995), Becker and Steele (1995 and 2004), Duffy (1976, 1992 and 1997) and WwW were underpinned by a range of theoretical frameworks from the disciplines of public management, organisational behavior, aesthetics and facilities planning and wider built environment subject areas.

As such, the third stage of this study involved a review of relevant literature drawn from the disciplines of public management (eg Massey and Pyper, 2005; Pollitt and Bouckaert, 2000; Hughes, 2003; Hood, 1998; Greener, 2009; McCourt and Minouge, 2001), and the innovation landscape (eg Altshuler and Zegans, 1997; Albury, 2003, Osborne and Gaebler, 1992; and Hartley, 2008).

Such literature made regular reference to management theory and its influence on public management theory and practice. As such, the literature review further investigated the associated disciplines of modernist and postmodern approaches, mapping the transition from scientific, bureaucratic and more empowering forms of management (eg McAuley et al, 2007; Hatch, 1997; Carnevale, 1992; Weber, 1946; Beetham, 1987; Bos and Willmott, 2001; Cesarani, 2004; Sennett, 2006; Du Gay, 2000; Wallace, 1998; Clegg, 1990 and Albury, 2005).

In order to analyse the extent to which WwW has facilitated the principles of the learning organisation and informed primary research design, the next stage of the literature review involved a detailed examination of learning organisation literature (eg Senge, 1994; Lassey, 1998; Hitt, 1995). In order to ensure relevance to the public sector, specific emphasis was placed upon investigating studies of learning organisation within this context (eg Rashman et al, 2009; Bate and Robert, 2002; Jensen, 2005; Newell et al, 2003; Vince and Broussine, 2000; Chen, 2004; Knight, 2002; Mann et al, 2004; Reagans and McEvily, 2003; Dekker and Hansen, 2004 and Vince and Saleem, 2004).

Finally, literature relating to aesthetics, particularly workplace design as a specific aesthetic artifact, was reviewed (eg Ramirez, 2005; and Gagliardi, 1992; Scuri, 1985; Becker and Steele, 1995; Duffy, 1997; Ward and Holtham, 2000; Laing et al, 1998; and Myerson and Ross, 2003 & 2007).

In conclusion, the literature review identified distinct bodies of literature relating to public sector management, innovation, learning organisation and workplace redesign. There was overlap in much of this literature, although little was specific to the public sector.

A common theme to emerge throughout the public management, learning organisation and workplace design literature, was the need for a well-considered change process, particularly in relation to structure, power relationships and wider cultural aspects. This apparent gap in both practitioner and academic literature provided an opportunity for more focused primary research design and potential contribution.

The fourth stage of this study involved a process of research design. An objective to develop an appropriate methodology and methods to explore the impact of workplace design in two public sector organisations was established. Following a detailed review of alternative research approaches, a realism paradigm was adopted. Silverman (2000) notably considered that realism research is most appropriate when a contribution to practice is an intended outcome of the study.

Following a review of past studies in this field and discussions with various government agencies involved in WwW, organisation research was deemed most suitable, adopting semi-structured interviews, corporate document scrutiny and observation of physical artifacts as data collection methods. Whilst this study was not intended to be generisable, it is hoped the two case studies will provide an opportunity for direct replication and expand the possibility of verification.

The primary objective of this study was to investigate the extent to which the WwW initiative can aid a public sector organisation in becoming a learning organisation. To achieve this, the fifth stage involved the implementation of the previously discussed research methodology.

Data gathered allowed the author to build two case studies detailing the approach to and perceptions of WwW and the subsequent impact upon achieving the characteristics of a learning organisation.

Using the Explanation Building model developed by Yin (2003), as a basis for the analysis process, supported by template analysis, the sixth stage of this study involved a detailed analysis of primary research data. Data from each case study organisation was compared against the literature and subsequently, comparisons were made between the organisations to enable a process of cross case synthesis.

Such a process thus enabled the generation of conclusions and subsequent contribution to practice which formed the seventh and final stage of this study.

8.2. Summary of Literature

The literature chapter presented research from a range of associated disciplines. Whilst each discipline was independent a range of common themes emerged, most notably these were: the close alignment of new public management principles and those of WwW and the learning organisation; the ability of an organisation's physical environment to contribute to improved communication, collaboration and openness; the contribution of the workplace and other physical artifacts as a driver of learning organisations; and the need for appropriate cultural change activities when attempting to create the conditions of the learning organisation through workplace redesign.

It was further noted that, despite literature relating to the learning organisation growing exponentially since the 1990s, relatively little attention has been given to public service organisations (Bapuji and Crossan, 2004; Kelman, 2005) and the private sector remains an over-relied upon source for theoretical understanding and empirical research.

From the limited public sector learning organisation research, common issues of context, structure, leadership, power relationships, culture and inflexible systems emerge as key inhibitors, requiring a careful process of cultural change.

However, no specific cultural change models have been developed for public sector organisations in their drive to become learning organisations, although commonly adopted models based on research undertaken in private sector organisations include Kotter and Schlesinger (1979), Miller (1984) and Cummings and Worley (2009).

In considering the workplace environment as a driver of learning, there is scarce literature to suggest the physical environment has any ability to contribute positively to the achievement of the learning organisation, however, a number of studies (eg Duffy, 1995; Berg and Kreiner, 1992; Leibson, 1981; Seiler, 1984; and Olivegren, 1987; Steele, 1973) all note a correlation between workplace design and improved interaction, communication, empowerment, collectivity and achievement of goals. As such, a clear relationship can be drawn between these themes and those of the learning organisation and wider postmodern management agenda.

To encourage such environments, there has been an evolution of workplace styles and design. Whilst it is acknowledged that many such designs have emerged from consultancy and architectural practice without any underpinning theoretical base (for example Duffy, 1995), others, such as Becker and Steele (1995) or Myerson and Ross (2003 and 2006), are grounded in empirical research and the consideration of wider management, aesthetic and organisation studies.

Furthermore, all designs cited in this study are supported by post-occupancy evaluation and testimonial, published in a range of practitioner and academic focused texts.

In shaping a potential contribution to theory and practice, writers such as Duffy (1998) and Grimshaw and Cairns (2000) note limited evidence-based research relating to the relationship between individuals and their physical environment, whilst Hartley and Alison (2002) note relatively little empirical research examining the processes of learning as a result of inter-organisational networks specific to the public sector.

Comparable to the literature relating to the learning organisation, empirical studies of workplace redesign in private sector organisations notes a number of commonly cited challenges, including management style, nature of work, over communication, noise, loss of privacy, lack of storage, close proximity to managers, increased observation, removal of job boundaries and visual distraction (eg Hundert and Greenfield, 1969; Brookes and Kaplan, 1972; Dean, 1977; Clearwater, 1980; Sundstrom, 1986; and Bradley and Parker (2002). Closer interpretation of these issues suggests underlying concerns relating to context, power, status, hierarchy and need for cultural change.

A common theme to emerge in each of the disciplines studied was the need for a well-considered change process, particularly in relation to structure, power relationships and wider cultural aspects (eg Toffler, 1980; Nilles, 1994; Duffy, 1997; Thompson and Warhurst, 1998; Cairns and Beech, 1999; Ward, 2000; Becker and Steele, 1995; Worthington, 1997; Price, 2004; and Myerson and Ross, 2005).

In conclusion, the literature review identified a range of studies relating to public sector management, innovation, learning organisation and workplace redesign. There is clear overlap in much of this literature, although little is specific to the public sector.

Despite national initiatives such as WwW, there is a lack of empirical study investigating the impact of workplace design on learning. In a climate whereby public organisations are undergoing substantial reform and continually required to innovate, it was considered this was an important area for further investigation.

8.3. Summary of Findings

The completion of a primary data research process involving semi-structured interviews, corporate document scrutiny and observation of physical artifacts, noted that whilst WwW makes a positive contribution towards the conditions of learning organisation and subsequent innovation, there are a number of related factors which must be considered.

Analysis of both case studies noted organisations must do more than merely design their workplace as “a centre for social life” (Kanter, 1989, p285). Instead they must adopt a range of new management approaches (Hartley and Allison, 2002) focusing upon making adjustments to embedded cultural factors such as indicators of status, entrenchment, management power, empowerment, and communication.

The findings further suggest that the role of the leader contributes significantly to the extent to which WwW and subsequent learning becomes a cultural norm and provided evidence to suggest that, without appropriate leadership development those with legitimate authority often resist change.

Findings also suggest a positive relationship exists between senior team involvement and subsequent acceptance by organisational members. Key actions required by senior leaders include removal of unnecessary rules and procedures, providing opportunities for involvement and participation, building cross organisational relationships and the introduction of visible artifacts such as flatter organisational structures and realigned functional arrangements.

There was further evidence to suggest the organisation mission, nature of work and degree of central government autonomy afforded to individual functions affects the level to which the principles of learning organisation, WwW and wider public management approaches are adopted. Most notably, those functions which retain a role culture characterized by narrow job descriptions and repetitive processed-based operations are less likely to encourage learning or see the need for task reengineering.

However, most significantly, the findings suggest a significant correlation between the extent to which WwW facilitates learning and the actions taken to facilitate cultural change. It is this correlation which has shaped the practical contribution to practice for this study.

8.4. Summary of Contribution to Practice

The final objective of this study was to draw conclusions in order to make a practical contribution to aid public sector organisations to implement WwW as a facilitator of learning.

Given the emphasis within both literature and findings for a combined change model, the author proposed a five phase process, based upon existing approaches relating to public sector cultural change (Miller, 1984; Cummings and Worley, 2009), workplace design change (Becker and Steele, 1995) and learning organisation change (Du Plessis, du Plessis and Millett, 1999), alongside some of the approaches adopted in the case study organisations.

Opportunity now exists to further develop this model through a process of action research within a local public sector organisation that is embarking upon the WwW process. It is envisaged such engagement will allow for elaboration of each phase and provision of more specific step by step stages to benefit future users of the model.

8.5. Summary of Wider Contribution to Policy Makers

The origins of this study emerged from a series of discussions with government policy makers tasked with the challenge of realizing the goals of public sector modernization as outlined in Modernising Government (1999).

Whilst it is envisaged the conclusions of this study will contribute to the practical implementation of WwW within a range of public sector contexts, this research is also important to those shaping policy in public services globally.

Given WwW is emerging from its pilot status and about to begin widespread implementation across the UK public sector, there is likely to be increased stakeholder involvement in the initiative, leading to further interpretation and subsequent modification.

As such, this research can provide appropriate background understanding to the initiative, whilst the issues and subsequent recommendations highlighted in this study will offer a valuable reference to all policy makers challenged with creating opportunities for enhanced learning and innovation.

Additionally, it is envisaged this resource will guide such policy makers through the issues associated when implementing a process of wider workplace redesign or cultural change, whether related to learning organisation or not.

8.6. Summary of Contribution to Professional Development

As a full time academic contributing to a range of undergraduate, postgraduate and corporate learning programmes, it is further considered the outcomes of this study will enhance the author's existing expertise in the subject disciplines of public management, organisational behavior, workplace design and learning organisation.

Indeed, throughout the period of research, a number of opportunities arose that provided the author with an opportunity to disseminate work in progress. As a result of such dissemination activities, requests were made to embed the research into a number of modules and bespoke corporate CPD programmes. Of particular note has been the development of a one-day workshop requested by a local authority wishing to begin a process of workplace redesign and wider management transformation, and the creation of an undergraduate module relating to the leadership of innovation and change which has been successfully delivered to a number of part time, distance learning and corporate sponsored students.

Furthermore, the author has contributed to a number of round table discussions led by the professional body, the Royal Institute of Chartered Surveyors, in relation to the role of buildings and their impact upon productivity, wellbeing, staff recruitment and retention. This builds upon a co-authored conference paper disseminating some of the pilot study contributions of this study.

Finally, as the WwW initiative is embraced by a number of public sector organisations, requests have been made for the author to contribute to the design and implementation process. This provides an opportunity for further action-based research, consultancy and wider dissemination of study findings and contribution.

8.7. Evaluation Process

Straus and Corbin (1998) discuss the need for all research, whether qualitative or quantitative to be carefully evaluated. Whilst qualitative research is noted to be more difficult to evaluate due to its subjectivity and often contextual nature (Bryman, 2004), the purpose of such a process is to instill a confidence in the 'truth' of the findings and to convince the researcher and audience that the results are worthy of notice (Lincoln and Guba, 1985).

Using an appropriate evaluation framework, the aim of this section is to outline how the qualitative research process was rigorous.

8.7.1. Evaluation Framework

Whilst evaluation frameworks are well established for quantitative studies and typically based upon the process of ensuring reliability and validity, this is more difficult in qualitative studies. A range of qualitative evaluation techniques have been developed (Strauss and Corbin, 1998; Lincoln and Guba, 1985; Johnson and Duberley, 2003), however, as outlined by Anderson and Skaates (2005, p475) “there is no single way of validating one’s qualitative research findings.”

Following a review of alternative approaches, the framework developed by Lincoln and Guba (1985) appears the most relevant for this study, given its application in similar studies.

This framework notes the importance of trustworthiness when evaluating qualitative research.

8.7.1.1. Trustworthiness

Trustworthiness is defined by Lincoln and Guba (1985, p290) as “how can an enquirer persuade his or her audience (including self) that the findings of an inquiry are worth paying attention to, worth taking account of?”

The evaluation of research trustworthiness considers four key criteria: credibility, transferability, dependability and confirmability.

8.7.1.2. Credibility

Credibility is the process of ensuring that the researcher has carried out good practice (Bryman, 2004) and as such, reassures others of its acceptability (Lincoln and Guba, 1985).

In relation to this study, a number of arguments can be stated to ensure such credibility. Firstly, the study topic was chosen in response to an identified sector need and specific objectives were determined following a process of discussion with policy makers and practitioners from across a range of government departments. This ensures the study is both relevant and practical.

Furthermore, care was taken in ensuring the chosen case study organisations were representative of the government agencies who were part of the WwW pilot and who would be likely to engage in future implementation of WwW principles. Individual research participants were vetted for integrity and openness, and the researcher ensured no personal relationship existed between himself and respondents.

To further ensure credibility, a research approach was adopted that was recognized and proven for this type of study, and a process of reflexivity was maintained throughout the semi-structured interview and observation stages, in which a journal, reflecting upon immediate feelings, potential bias and assumptions were recorded.

8.7.1.3. Transferability

Lincoln and Guba (1985) suggest transferability is the process of ensuring that findings are applicable to other contexts. Whilst the findings of this study were based upon the individual experiences within two public sector organisations and as such, contextually oriented, care was taken to ensure these organisations were representative of all agencies who participated in the WwW pilot and those who had expressed an interest in pursuing a process of workplace design as a driver of learning in the future.

To determine the sample, discussions were held with Project Directors co-ordinating WwW within the Treasury, consultants DEGW who had contributed to methodology development and subsequent implementation of WwW within each pilot organisation, and individual discussions with in-situ WwW Programme Managers. Additionally, data such as number of employees, structure, strategic objectives, statutory requirements and function were considered.

Whilst the conclusions of this study are contextually based, they can be transferred into other public sector contexts and discussions with a range of agencies pre-and-post WwW suggest this research will aid managers in ensuring the conditions of learning and wider cultural change are better achieved throughout the process of implementing WwW.

8.7.1.4. Confirmability

Lincoln and Guba (1985) suggest confirmability is the process of demonstrating how the researcher has acted in good faith and ensured that personal values or theoretical inclinations have not impeded the study.

Whilst the author has a professional background in the public services, a factist (Alasuutari, 1985) approach was adopted throughout the stages of data collection, analysis and interpretation. This ensured the author's experiences of managing within a public context remained removed from the research process.

Despite this approach, interpretations of terminology could not be avoided and once respondents were aware of the researcher's background in public services, certain assumptions would often be made as to their knowledge. To avoid such assumed knowledge, regular prompts for clarification would be made during the interview process.

The adopted realist paradigm, however, allowed the researcher to revise meanings, structures and issues from experiences and the perceived views of others (Orlikowski and Baradaui, 1991).

8.7.1.5. Dependability

Lincoln and Guba (1985) define dependability as the process of ensuring research is applied consistently. This requires the adoption of appropriate audit trails in which external auditors can both follow the investigator's research journey and arrive at similar conclusions.

Whilst the realist paradigm allows for the researcher's view of the world to shape their understanding and ultimate conclusions, the process of research ensured documentary evidence of all data collected was maintained. This took the form of interview transcripts/recordings, fieldwork notes, research summaries and a reflexive journal.

8.8. Relevance

Hammersley (2002) discusses the clear distinction between practical and scientific research. Practical research is distinguished by its role of providing a set of guidelines for practitioners. Practitioners can either be participants of the research or people interested in the research topic.

Given the practical nature of a professional doctorate, the author has endeavored to develop a practitioner-focused contribution as a result of this study. In turn, the relevance of this contribution is a significant evaluation tool.

To ascertain such relevance to practice, the author conducted four mini-interviews with practitioners from a range of public sector disciplines, including Human Resource Management Directors, Facilities Directors and a Service Excellence Manager. Research has suggested it is these roles which are most likely to lead WwW projects within public sector organisations.

Throughout these interviews research findings, conclusions and contribution were presented. The outcomes of this post research process were very positive and comments included:

your findings are both timely and very relevant to our organisation. They are worthy of more detailed discussion, and we would welcome the opportunity for you to work with us as we progress through our workplace transformation programme.

we have attempted workplace redesign on a number of occasions with limited success....this change model addresses many of the issues we have faced and highlights areas we did not consider. It is a very user friendly, clear and concise tool, which will be of great benefit to us and any public service adopting WwW or similar design ideas.

we very much look forward to disseminating the results of your study to any interested parties and encouraging the consideration of your practical toolkit.

this work is highly relevant and provides an opportunity for further evaluation in the months and years to come to ascertain its impact upon our objectives of WwW.

Further outcomes of this evaluation stage have been two requests to discuss this study in organisations in the embryonic stages of WwW, a request to formally present findings and contribution to the Project Directors of WwW, an opportunity to engage in a process of action research within a public sector organisation who has partially completed WwW, and to facilitate a training session for change agents involved in a process of workplace redesign within a local authority.

This suggests the study and outcomes are of relevance to the intended audience and opportunities for further dissemination and applied research exist.

8.9. Reflexivity

Manson (2002) discusses the need for qualitative researchers to engage in a process of critical self scrutiny, termed reflexivity.

Such reflexivity explores the ways in which the researcher's involvement, background and experiences influences a study and potentially shapes its conclusions (Johnson and Duberey, 2000; Nightingale and Cromby, 1999).

As a former public sector employee, consultant and currently involved in teaching public sector managers, the researcher holds a number of views and assumptions about the phenomenon under investigation. As such, consideration about how such views and assumptions could influence the way data was interpreted was important.

In order to explore the relationship between the nature of study and researcher, a reflexive stance was adopted. This involved the creation of a mini-biography and a research journal.

The biography enabled the researcher to reflect upon his public sector experience in order to better understand how this could influence data interpretation. Themes relating to power, control, and conducive environments for learning emerged as part of this process.

The research journal further provided an opportunity to better understand how data was interpreted. This was a hand-written record of thoughts and feelings from both the data collection process and the subsequent creation and review of templates. (See appendix three)

This process provided an opportunity to quality check the analysis process. Such an audit trail provided a clear rationale about the decisions being made by the researcher and how they shaped findings and conclusions.

Although accepted within a realist paradigm, every effort was made to ensure personal views have not influenced the study.

When reviewing interview responses, two types of respondent were noted: some would assume the author was aligned to the organisations management and hence were careful not to make any comment which may affect their jobs. This was particularly the case with the change agents in organisation one, where, despite clear discussion of the purpose of the research and written clarification in the individual consent process, there were repeated questions relating to 'who will be reading this?' and 'who is behind this study?'

Only when the author repeated the purpose and confidentiality attached to the study did such participants begin to relax and talk more freely. The second type of respondent assumed the author was a public sector employee and as such opened up, and talked honestly about their opinions.

These respondents assumed some prior knowledge of the public sector context, using terms such as “you know what it is like” or “it will have been the same for you”.

This is a weakness of the adopted empathetic interview approach and required the author to seek further clarification from the respondents to ensure an inaccurate personal assumption was not made.

Some respondents also spoke in monosyllables, and a danger emerged that the author would over interpret this limited data. Once again, such respondents were asked to clarify further their views in order to ensure it was their voice being heard.

In conclusion, whilst I would suggest a researcher adopting a realist paradigm can never be removed from the research, every attempt has been made to ensure the resulting analysis and discussion provide a clear and reliable picture of events within the two participating organisations.

8.10. Professional Development Reflections

The professional doctorate philosophy has embedded at its core a learning journey designed to enhance both a learner’s ability to research and to develop wider personal and professional competence. Through the maintenance of a learning diary, training needs plan and regular supervisory records throughout the three years of this study programme, the author has regularly reviewed personal learning. A summary reflection of this is made in the following section.

8.10.1. Practical Research Skills

Despite completion of undergraduate, postgraduate and work-based research projects, the author's knowledge of research techniques was limited at the beginning of this learning journey and posed the most significant personal challenge.

The completion of two research skills learning blocks, coupled with attendance at a wide range of methodology and methods workshops has provided the author with both an increased understanding and more importantly, greater confidence in applying more innovative research approaches. In particular, the learning has provided the author with greater confidence in qualitative research methods and the ability to apply them successfully in a range of organisational settings to participants from a range of backgrounds. Critical and logical thinking abilities have also been significantly developed alongside an ability to review problems reflexively.

Specific skills in recognising and validating problems, research ethics, research management, articulating ideas, listening, communicating, developing theoretical concepts, critical analysis and evaluation of findings in relation to others, use of research software, flexibility and open-mindedness, recognising boundaries, initiative, independent working, self-reliance, defending interim research outcomes and working within tight deadlines have been developed with the continued support of a professional supervisory team and research community within Newcastle Business School and Northumbria University.

Such skills have been evidenced in both a detailed training summary and through the submission and dissemination of a number of peer reviewed scholarly papers for academic and practitioner focused conferences.

In conclusion, the author has emerged from this period of study with greater confidence and determination to practice research and engage in wider research focused activity.

8.10.2. Personal and Career Development

In addition to research specific skills, the author considers this period of study has resulted in improved competence. At the onset of the DBA programme, the author undertook a self evaluation of personal and management competence.

Using the Management Competence Initiative (MCI) and Chartered Management Institute (CMI) framework as a basis, a process of critical self reflection relating to the competences of assertiveness, behaving ethically, teamworking, relating to others, communicating, planning and prioritizing, seeking excellence, influencing others, managing self, managing professional development, searching for information, thinking and decision making, conceptualizing and critical reflection was undertaken.

This process of self discovery identified that whilst educationally and professionally the author had met and surpassed all intended goals, further development was required in the areas of assertiveness, behaving ethically, teamworking, communication, prioritizing, and seeking excellence.

As a result of the professional doctorate programme and subsequent self analysis against these MCI/CMI competence areas, the author would consider improvement in these areas as outlined overleaf:

8.10.2.1 *Assertiveness*

Reflecting upon events such as the independent learning process, supervisory meetings, mid-point progression presenting and defending research at national and international conferences and disseminating work in progress to practitioners, the author considers his assertiveness has improved, particularly in the areas of: taking personal responsibility for making things happen, acting in an assured and unhesitating manner when faced with a challenge, saying no to unreasonable requests, stating his own position and views clearly in conflict situations and maintaining beliefs, commitment and effort in spite of set-backs or opposition.

8.10.2.2 *Behaving Ethically*

Reflecting upon the process of gathering data, the author has developed a range of new skills relating to compliance with research ethics and professional and organisational codes of ethical practice, greater integrity and fairness in decision making and improved reasoned thinking.

8.10.2.3 *Teamworking*

Despite being an independent piece of research, the active involvement in a research community of practice has been of significant importance to the author. As an individual who would typically shy away from such collaboration, the benefits of sharing experiences with research peers and listening to their feedback has been invaluable. As such, a desire to contribute more actively in teams and promote the benefits of teamworking has been realised.

8.10.2.4 *Communication*

Whilst a number of improvements in relation to written and verbal communication could be noted as a result of this period of study, improvements in relation to interviewing, listening, confirming understanding through questioning and interpretation of non-verbal signals, and adopting communication styles appropriate to listeners and situations are particularly apparent. Such improvements can be evidenced through events such as viva voce at mid-point stage, presentation at a range of research conferences, completion of semi structured interviews and discussions throughout supervisory process.

8.10.2.5 *Prioritising*

As an individual who has completed all previous post 16 education activities on a part-time basis whilst working full time, the challenges of balancing a range of commitments were not new.

However, the start of the doctoral programme in 2007 was coupled with promotion to a new academic management position and as such, the new pressures were unknown. Until the mid-point stage, prioritising the doctoral study was a difficulty and significant improvements had to be achieved in the areas of making better use of time and resources and delegation. Through improved use of scholarly leave allowances and greater empowerment of subordinates, the doctoral study gained greater personal attention and subsequent motivation to achieve.

8.10.2.6 *Seeking Excellence*

Experience has shown the challenge of balancing work and study often results in elementary errors, all of which could be avoided through better allocation of time, detailed thought processes and proof reading. To ensure quality of work and progress against plans was monitored, the author created a system of goal setting, brain storming, proof reading and regular monitoring of progress against objectives.

To ensure work could be scheduled to avoid unnecessary time pressures, approaches to the study were based on a logical thought process and errors were continually identified. This approach has been subsequently adopted in other areas of work including academic planning.

The development of such competence has undoubtedly had a positive impact upon the author's personal and professional growth; however, the study itself has further enhanced career potential. Indeed, to date opportunities have been identified for dissemination of research as part of the authors teaching role, further opportunities for applied research within the local and national public sector community, consultancy and action research to a range of stakeholders including public sector employers, facilities management consultancies, and professional surveying bodies. The author considers such interest provides both confidence in the research and opportunities to further progress professional competence in the academic field.

8.11 Limitations and Suggestions for Further Research

The purpose of this study was to understand the interaction between organisational aesthetics and its impact upon the modernization demands for learning and innovation. The author believes this to be the first study of this kind and it was designed to provide a practical contribution to public sector organisations who engage in a process of implementing WwW.

As with the majority of case-study based research, a number of limitations can be identified (Taylor-Powell and Renner, 2003).

Whilst it is hoped this study will enhance understanding and subsequent successful creation of knowledge and learning environments within public sector organisations, it is accepted that the outcomes of two case studies cannot be generalized and each remain embedded in their own specific operating context.

Furthermore, the relatively small scale WwW pilot allowed for limited choice of research organisations. Whilst every attempt was made to chose those which were representative of the entire sector, there will be some organisations which operate in a significantly different environment to those studied.

Finally, such is the embryonic nature of WwW, it could be argued that little time has been allowed for full entrenchment of its principles and as such, the organisations studied remain in a state of transition.

As such, these limitations provide an opportunity for future applied research in three particular areas. Firstly, an opportunity exists to engage in a process of action research working alongside organisations as they design and implement the WwW principles. In particular this will allow the suggested hybrid change model to be monitored and further modified as a result of observing it throughout its realisation.

As the WwW model becomes mainstreamed, a wider range of public sector organisations could also be studied, thus allowing an enhanced understanding of the effect of different operating contexts. Finally, an opportunity exists to return to the case study organisations at a later date to ascertain the extent to which WwW has enabled learning and innovation following a more significant period of embedment.

Indeed, as highlighted earlier in this chapter, this study has already generated requests to engage in follow up research. Such interest suggests the study and outcomes are of relevance to the intended audience and opportunities for further dissemination and applied research exist.

8.12 Summary of Research Objectives

The research objectives for this study were:

1. To critically review existing literature in public sector management design, learning organisation and workplace design.
2. To identify and critique theoretical resources which suggest a positive relationship between particular types of workplace design and outcomes which generate learning.
3. To develop appropriate methodology and methods to explore the impact of workplace design in two public sector organisations.
4. To analyse employees' perception of the effects of WwW as a facilitator of learning in their workplace.
5. To identify factors that assists and detracts from the development of learning in these contexts.
6. To draw conclusions from this study to assist workplace design strategies within the public sector.

This section will take each of these objectives in turn and discuss their role and contribution to the study.

8.12.1 Research Objective One - To critically review existing literature in public sector management design, learning organisation and workplace design.

The literature chapter presented research from a range of associated disciplines including public sector management, innovation, learning organisation and workplace redesign. This chapter identified clear overlap in much of this literature, although little is specific to the public sector.

Research that did exist called for comprehensive cultural change when implementing new management approaches or workplace configurations. In particular the need for organisations to address the areas of context, structure, leadership, power relationships, culture and systems emerged as key inhibitors to achieving the principles of WwW.

Undertaking a literature review enabled the author to identify priori themes in order to form an initial conceptual framework, which would inform subsequent data collection design.

8.12.2. Research Objective Two - To identify and critique theoretical resources which suggest a positive relationship between particular types of workplace design and outcomes which generate learning.

Whilst government policy and the principles of WwW suggested a positive correlation between the workplace environment and the subsequent learning and innovation, the second objective was designed to establish academic literature supporting such claims.

The ensuing literature review in relation to these themes suggested scarce literature existed to suggest the physical environment has any ability to contribute positively to the achievement of the learning organisation.

However, a number of studies (eg Duffy, 1995; Berg and Kreiner, 1992; Leibson, 1981; Seiler, 1984; and Olivegren, 1987; Steele, 1973) noted a relationship between workplace design and improved interaction, communication, empowerment, collectivity and achievement of goals. Subsequent analysis suggests synergy between these themes and those of the learning organisation and wider postmodern management agenda.

The literature search further highlighted an evolution of workplace models. Scrutiny of such models allowed the author to gain an increased understanding of those which provide greater opportunity for improved learning conditions.

Gaining such an understanding enabled the author to identify further priori themes in order to developed the conceptual framework and better inform subsequent data collection design.

8.12.3. Research Objective Three - To develop appropriate methodology and methods to explore the impact of workplace design in two public sector organisations.

In order to best identify the critical success factors and barriers to learning following a process of workplace redesign, the author began the process of developing a research approach by reviewing the limited number of similar studies in this field. This concluded that a realist paradigm was most appropriate due to the nature of its reality, level of access afforded to the researcher, and the wide range of data sources available.

Multiple case studies were chosen as a form of methodology due to their close relationship to the realist paradigm, which would allow the researcher to study a phenomenon in its natural state.

A review of research literature noted case studies was particularly appropriate in exploratory research, theory generation and examination of organisational phenomena, which were the fundamental foundations of this study.

To ensure subsequent trustworthiness, credibility, transferability, dependability, confirmability and relevance, the research design process carefully considered choice of methods, research sample, method design, validity, data analysis approach, ethics and the role of the researcher.

Whilst it was acknowledged that the study would not enable generalisability, the research approach aimed to generate findings to provide improved understanding WwW as a driver of learning and provide similar public sector organisations with guidance for improved implementation and practice.

8.12.4. Research Objective Four - To analyse employees perception of the effects of WwW as a facilitator of learning in their workplace.

When formulating the initial focus of this study, the Project Directors of WwW noted reliance upon quantitative research methodologies in prior analysis of workplace studies. In such studies, little opportunity is afforded to the stories or experiences of employees working in new environments. With this in mind, a research approach was designed to gather individuals' experience of working in these new working environments, whilst also reflecting the enablers and barriers that research participants have faced.

Following a review of similar studies in this field, a realist paradigm was adopted due to the nature of its reality, level of access afforded to the researcher from the participating organisations, and the wide range of data sources available.

The use of multiple case studies as a form of methodology was chosen, as it is an established method within the realist paradigm and allows the researcher to study a phenomenon in its natural state. It is also considered case studies are particularly appropriate in exploratory research, theory generation and examination of organisational phenomena.

Observation and semi-structured interviews formed the most significant data collection approaches as they were deemed most useful in gathering the required rich data to make best informed conclusions.

As a result it is recognised that this is the first qualitative study in relation to the extent to which effects of WwW acts as a facilitator of learning in the public sector workplace.

8.12.5. Research Objective Five - To identify factors that assists and detracts from the development of learning in these contexts.

Analysis of the qualitative data collected allowed for the identification of factors which were considered to enable or detract from the achievement of a learning environment.

Whilst all participants indicated that the physical changes made to their workplace allowed for greater interaction, key enablers and inhibitors emerged, these included:

- the management style and approach in operation;
- the extent to which traditional cultural factors such as indicators of status, entrenchment, management power, empowerment, and communication were embedded and remained unchallenged;

- the involvement and enthusiasm of leaders within the organisation, at all levels;
- investment in leadership and wider development in new operating practices;
- the removal of unnecessary rules and procedures;
- providing opportunities for involvement and participation in WwW and wider decision making;
- building cross organisational relationships and encouraging long term intra organisational collaboration;
- the introduction of visible mental models of learning such as flatter organisational structures and realigned functional arrangements;
- the creation of a task based culture.

Evidence further suggested a correlation between the extent employees felt able to contribute to learning and the nature of their work. Particularly, those in process focused functions cited greater barriers, whilst those in more strategic or central functions highlighted more significant freedoms to innovate and take risks.

A further relationship emerged between the extent to which learning or innovation was cited in an organisation's mission or vision statements and the degree to which employees felt able to adopt the principles of the learning organisation.

8.12.6. Research Objective Six - To draw conclusions from this study to assist workplace design strategies within the public sector

A process of comparative analysis between the two case studies suggested that whilst organisational context and purpose determined the degree WwW could facilitate learning and innovation, this was negligible. More significantly, there emerged a correlation between actions taken to facilitate cultural change and the subsequent impact of the WwW initiative.

Whilst this need for a structured change process supports both the learning organisation literature (Senge, 1994; Hunt, 1995; Deming, 1995; Millett 1998; and Du Plessis, du Plessis and Millett, 1999) and Workplace Design literature (Fisher, 2009; Becker and Steele, 1995; Toffler, 1980; Nilles, 1994; Duffy, 1997; Thompson and Warhurst, 1998; Cairns and Beech, 1999; and Ward, 2000), it is recognised that no composite change model exists to support public sector organisations through in their implementation of the WwW and learning organisation transition process. In response to this identified gap in literature, this study concluded with a proposed change model to address this gap.

It is concluded that this study will provide both practical and theoretical contributions. As the first qualitative study to consider the extent to which WwW facilitates learning and innovation, an opportunity exists to both contribute to policy making and the widespread roll out of this initiative. Opportunities to disseminate the findings of this study and engage in further applied research have already emerged, which will provide additional openings to augment the conclusions provided in this thesis.

Furthermore, it is hoped the emerging change model can add to the theoretical contributions of academics in the field and add to growing literature in this subject discipline.

8.13 Chapter Summary

The purpose of this chapter was to provide a summary of the study and reflect upon the extent to which the original research aim and objectives have been addressed. In doing so, a discussion outlining the practical, policy and theoretical contributions of this research has been made – an area particularly critical given the applied nature of a professional doctorate.

To ensure the robustness and practical relevance of this research, the chapter further provides confirmation of the evaluation framework adopted and endorsements from practitioners following early dissemination of research findings. Limitations of the study and opportunities for further research are further outlined.

Finally, the chapter enables the author to reflect upon his own research journey throughout the past three years, highlighting the challenges, particularly in balancing study with full time employment, and the significant personal and professional achievements as a result of this learning voyage.

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APPENDIX ONE

Semi Structured Interview Questions

Research Participant Questions

What has the office redesign meant to you?

Can you give examples of specific changes to the culture of the organisation?

How were you prepared for the change of working environment?

It is considered removing boundaries internally enables the free flow of people, ideas and information

What does this mean to you?

Can you give any examples of when you have been encouraged to collaborate with your colleagues?

What opportunities exist for bottom up as well as top down strategy making?

How is information shared with colleagues? Has this changed since the redesign?

Which areas of social space do you use and why? How often?

Can you give me an example of a time you have used the social space to collaborate with colleagues?

What were the benefits to this?

Barriers?

Have you learned or made improvements to your role/career aspirations through the new office design?

Discuss

Do you consider the workplace design has facilitated any of the following traits?

Managers acting as coaches
Encouragement of experimentation
Routine review of activities
Empowerment
Working across traditional boundaries
Learning from others?

Change Agent Questions

Change agents were asked to describe the change process and their role.

APPENDIX TWO

Extracts from Research Journal

Research Participant C110.

Newcastle Business School



Has been in post 23 years and worked way up from a junior role.

Very uncertain about the purpose of the research and asked for clarification about who had commissioned it and who would be reading it. Spent some time discussing consent process.

Spent some time discussing how she had worked her way up the dept and how the role was very pressured - little people really understood the complexity of managing a team. Lots of performance targets.

Repeatedly referred to subordinates as "the girls".

Discussed and re-emphasised the need for control and discussed in some detail the problems of including "girls" in decision making. Repeatedly sought my reassurance in what she was saying - saying "you must know what it is like".

www.NewcastleBusinessSchool.co.uk

RESEARCH PARTICIPANT C27. Newcastle Business School



Very ENTHUSIASTIC

Manages a team and has clearly studied business as discussed her MBA and Dissertation. regular use of business terminology.

Very positive about Chief Executive who has clearly had a long term influence.

Overcame fear of losing status and attempts to remain in single office although was "persuaded" by the Chief Executive that the new style of work would be great.

Turned a lot about hierarchy of face to face communication - trust issues cited.

Saw the process of getting involved in ~~the~~ Design process as beneficial to both New workstyle and Career. Lots of things shared re benefits

Better Relationships - close to teams.

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APPENDIX THREE

Example Organisational and Individual Consent Forms

EXAMPLE



RESEARCH ORGANISATION INFORMED CONSENT FORM

Newcastle Business School
University of Northumbria

Completion of this form is required whenever research is being undertaken by NBS staff or students within any organisation. This applies to research that is carried out on the premises, or is about an organisation, or members of that organisation or its customers, as specifically targeted as subjects of research.

The researcher must supply an explanation to inform the organisation of the purpose of the study, who is carrying out the study, and who will eventually have access to the results. In particular issues of anonymity and avenues of dissemination and publications of the findings should be brought to the organisations' attention.

Researcher's Name: Guy Brown

Student ID No. (if applicable):

Researcher's Statement:

Research Purpose

The purpose of the study is to explore the employee's perception of changes to the aesthetic of a public sector working environment. In particular the author aims to ascertain employee's perceptions following the implementation of the Working Without Walls pilot schemes.

Parties Involved?

Project Director, *ORGANISATION NAME GIVEN IN ORIGINAL DOCUMENT*

Change Team, *ORGANISATION NAME GIVEN IN ORIGINAL DOCUMENT*

Self selected employees that are happy to participate. The researcher will send an email to the participants explaining the nature of the research and their expected role as an employee. Employees will then submit their expression of interest to researcher by email.

The research will be conducted by Guy Brown, a programme director and doctoral student at Newcastle Business School, Northumbria University.

Organization and individual participation is entirely voluntary and each may withdraw at any time.

Research Methods

A number of research methods will be employed; notably interviews and participant observation. All research participants will be distributed with an individual Informed Consent form which they must sign and return to the researcher before the interview can take place. This may be done by returning the signed hard copy in the post or by sending an email confirming their consent from their own personal email account. All interviews will be recorded with a digital voice recorder and transcribed.

Location of Research

Observation will take place on business premises.
The interviews will take place at the participant's workplace.

Timescale

The data collection timescale is from May 2009 – July 2009.

Time Commitment

Project Director and Change Team Member

An initial meeting of approximately one hour to discuss the research process in more detail which will also allow you to decide whether you would like to participate in the research.

An further interview with Project Director and Change Team member for approximately 1 hour to discuss workplace redesign objectives and process.

Transcripts will then be emailed back to the participants to be reviewed (either with amendments, deletions or additions) approximately 1 hour.

Any other meetings deemed necessary for the research upon negotiation with the research participants.

Employees within Case Study Organisations

Observations within the organisation. Typically 1 day.

Follow up interviews with 10 identified employee/s of the organisation for approximately 1 hour each.

Transcripts will then be emailed back to employee/s to be reviewed (either with amendments, deletions or additions).

Any other meetings deemed necessary for the research upon negotiation with the employee.

Anonymity

All information in this study will be anonymised, with all names of organizations and people changed.

Confidentiality

All data will be stored securely either electronically on computer or in hard copy version in a locked cupboard. As part of the data analysis process, hard copies of the anonymised transcripts (raw data) may be given to the doctoral supervision team and a small number of other research participants to review to ensure that the researcher's analysis has resonance. Hard copies will be returned to the researcher and will not remain in the possession of the research participants.

Research Dissemination

Data obtained through this research will be used primarily as part of the doctoral study programme. Data may be reproduced and published in a variety of forms and for a variety of audiences related to the broad nature of the research detailed above (i.e. conferences, peer reviewed journals, articles etc.). In each circumstance permission will be sought from the *ORGANISATION NAME GIVEN IN ORIGINAL DOCUMENT*. All data will be anonymised, with all names of organizations and people changed

Queries

Please direct any queries regarding this research to Guy Brown, 0191 227 4648, guy2.brown@unn.ac.uk

Any organisation manager or representative who is empowered to give consent may do so here:

Name: *NAME GIVEN IN ORIGINAL DOCUMENT*

Position/Title: *TITLE GIVEN IN ORIGINAL DOCUMENT*

Organisation Name: *ORGANISATION NAME GIVEN IN ORIGINAL DOCUMENT*

Location: *LOCATION GIVEN IN ORIGINAL DOCUMENT*

Anonymity must be offered to the organisation if it does not wish to be identified in the research report. Confidentiality is more complex and cannot extend to the markers of student work or the reviewers of staff work, but can apply to the published outcomes. If confidentiality is required, what form applies?

- No confidentiality required
- Masking of organisation name in research report
- No publication of the research report

Signature: *SIGNATURE GIVEN IN ORIGINAL DOCUMENT*

Date: *DATE GIVEN IN ORIGINAL DOCUMENT*

This form can be signed via email if the accompanying email is attached with the signer's personal email address included. The form cannot be completed by phone, rather should be handled via post.

EXAMPLE



**Newcastle Business School
Informed Consent Form**

Title of Research	Enabling Learning through 'Working without Walls' in the UK Public Sector How Do Public Sector Employees Perceive the Effects of Changes to Organisational Aesthetics upon Innovation?
Name Researcher	Guy Brown
Name of supervising academic (where appropriate)	Dr Ron Beadle
Address for correspondence	Newcastle Business School Northumbria University Room 443 City Campus East Newcastle upon Tyne NE1 8ST
Telephone	0191 227 4648
E-mail	guy2.brown@unn.ac.uk
Description of the broad nature of the research	To gather data to explore the impact of Working without Walls principles within the UK public sector.
Description of the involvement expected of participants including the broad nature of questions to be answered or events to be observed or activities to be undertaken, and the expected time commitment	<p>The expected involvement of the research participants is as follows:</p> <ul style="list-style-type: none"> • Initial discussion (approximately 2 hours) • Follow up interview (approximately 1.5 – 2 hours). • Any other meetings deemed necessary for the research upon negotiation with the research participant. <p>The interviews will be semi structured and based upon the participants experiences of leading a Working without Walls project</p> <p>The initial discussion questions will be exploratory in nature and focus on the objectives of the Working without Walls pilot.</p> <p>The follow up interview questions will be informed by the issues arising from initial historical data collection and that collected in the initial interview.</p>

	<p>All interviews will be recorded with a digital voice recorder and transcribed.</p> <p>Anonymity will be assured by changing the names of the participants, the organizations and people that they name during the interview in the transcripts.</p> <p>Interview transcripts will be emailed back to participants for reviewing and agreement. Participants are free to make any amendments, deletions or additions to the transcripts.</p> <p>Confidentiality will be maintained in terms of storing data securely on computer and ensuring hard copies of transcripts and field notes are stored in a locked cupboard.</p> <p>All data will be stored securely either electronically on computer or in hard copy version in a locked cupboard. As part of the data analysis process, hard copies of the anonymised transcripts (raw data) may be given to the doctoral supervision team and a small number of other research participants to review to ensure that the researcher's analysis has resonance. Hard copies will be returned to the researcher and will not remain in the possession of the research participants.</p> <p>Data will be used and reproduced as case studies in a variety of research publications.</p>
Additional information about the research	The data collection timescale of this study is from April 2009 – July 2009.

Information obtained in this study be anonymous (i.e. individuals and organisations will not be identified *unless this is expressly excluded in the details given above*).

Data obtained through this research may be reproduced and published in a variety of forms and for a variety of audiences related to the broad nature of the research detailed above. It will not be used for purposes other than those outlined above without your permission. Participation is entirely voluntary and participants may withdraw at any time.

Northumbria University is the data controller under the Data Protection Act (1998)

By signing this consent form, you are indicating that you fully understand the above information and agree to participate in this study on the basis of the above information.

Participant's signature

Date

Please keep one copy of this form for your own records

APPENDIX FOUR

Example of Process to Identify Themes From Semi-Structured Interviews

The following listing illustrates the process the author took in categorising commonly cited terminology from semi-structured interviews into themes

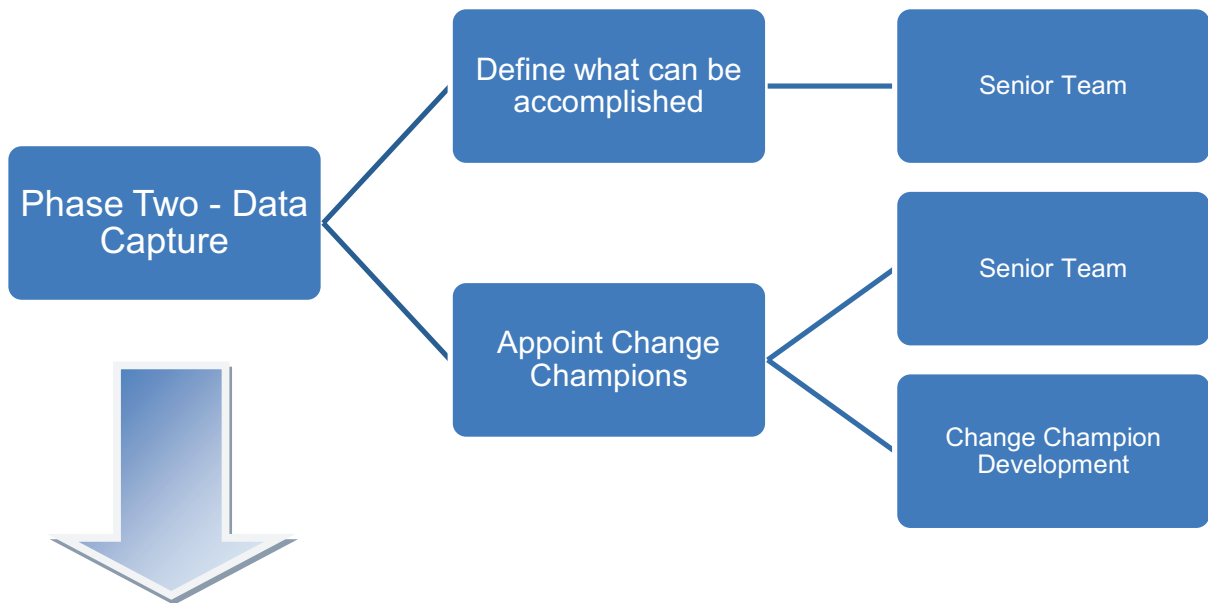
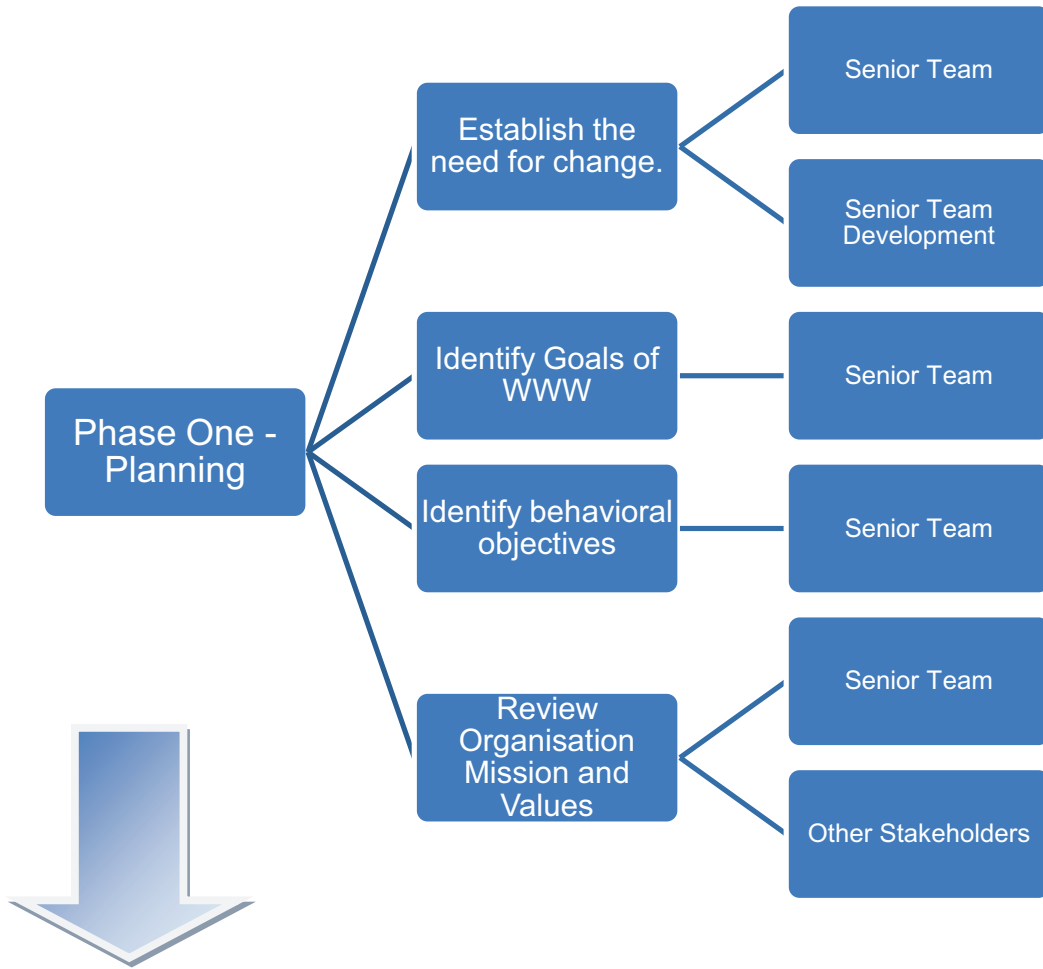
- Bureaucracy
 - Hierarchy
 - Structure
 - Centralisation
 - Rules
 - Processes
 - Consistency
 - Lack of Flexibility
 - Clarity

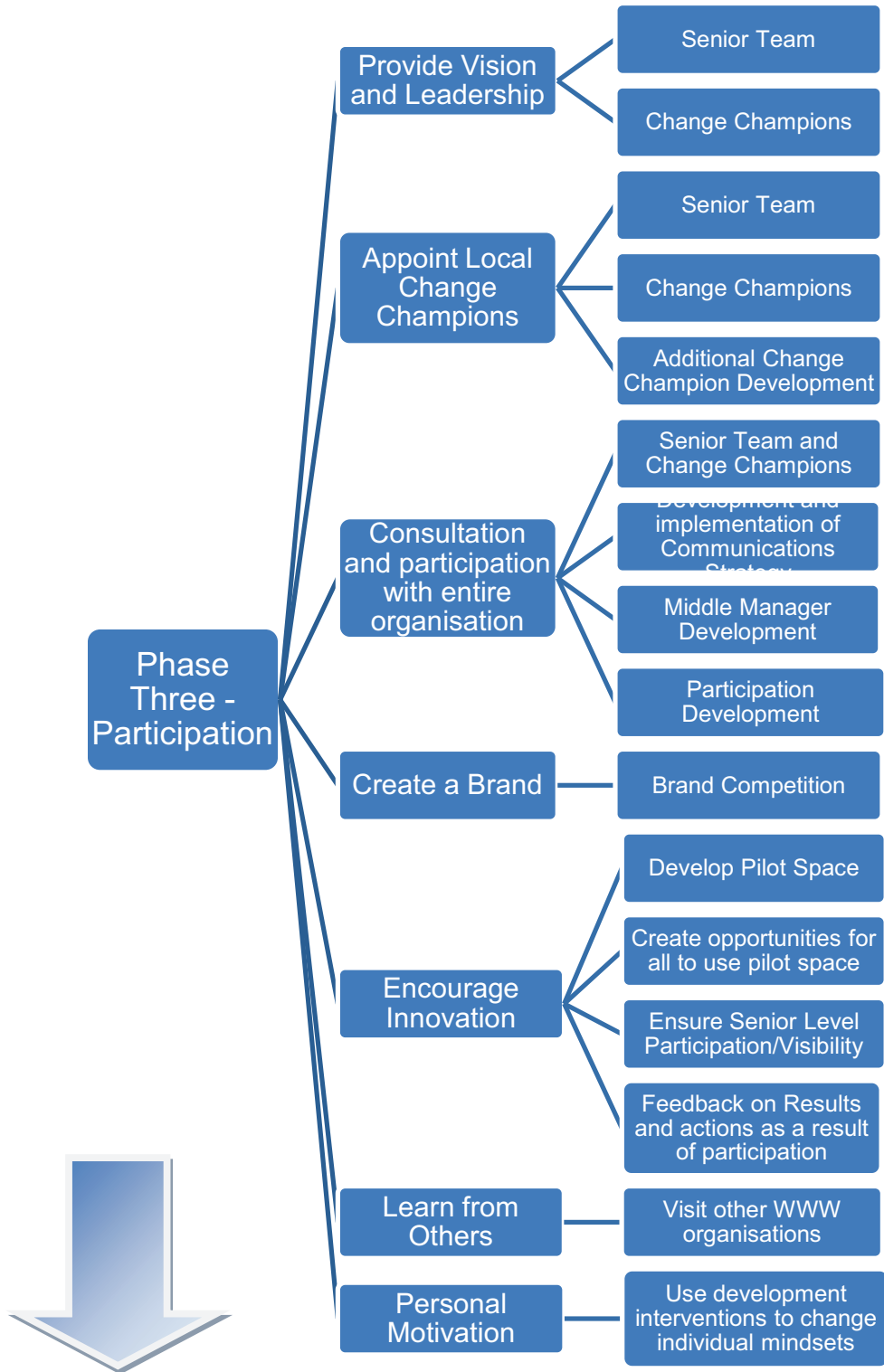
- Systems Thinking
 - Shared Decision Making
 - We are not paid to make decisions
 - Kept in Loop
 - Lip Service
 - Loss of Control
 - Qualified
 - Encouraging
 - Legitimacy
 - Supervision
 - Eyes

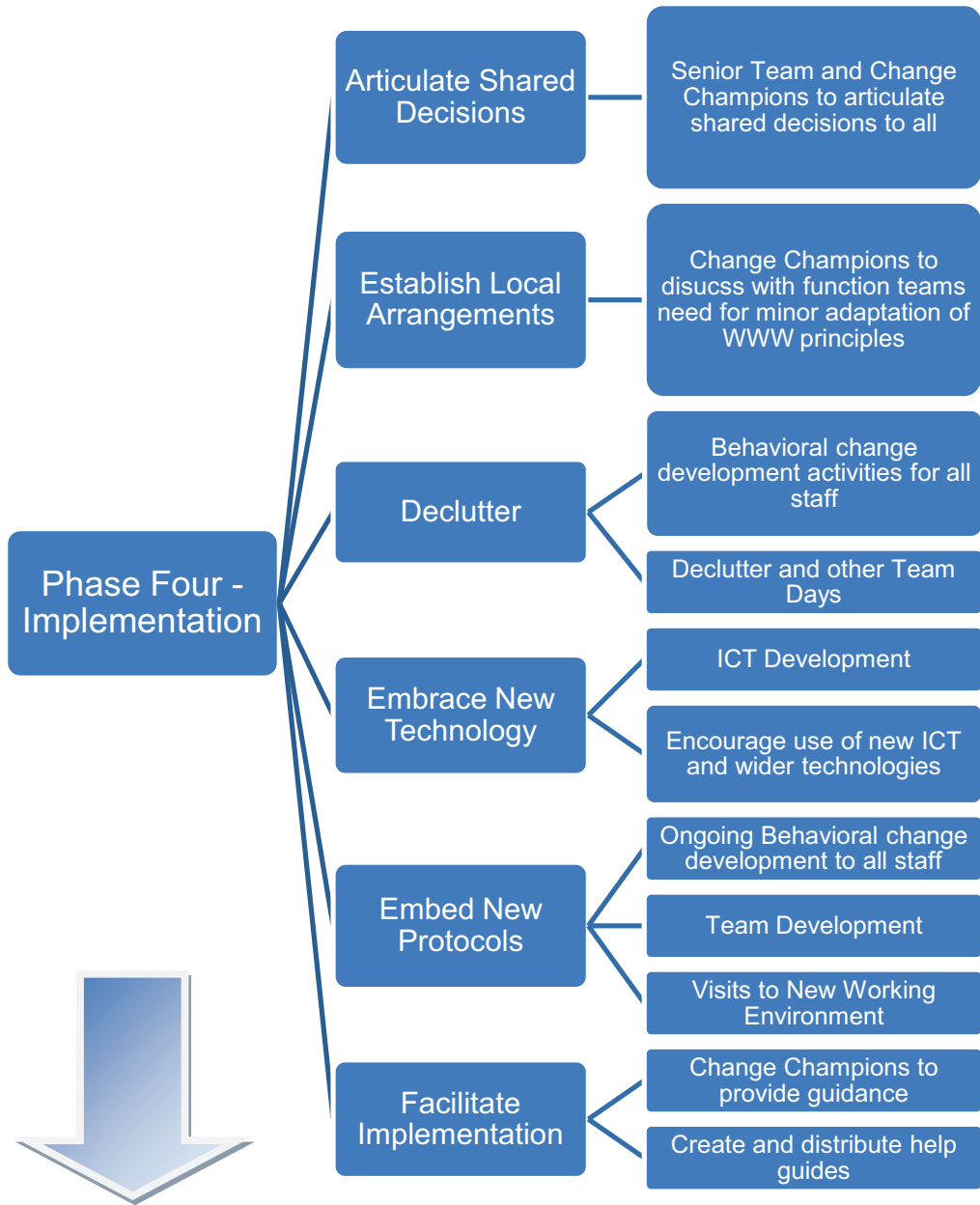
- Communication
 - Reform
 - Overload
 - Proliferation
 - Pointless
 - Reinventing
 - Same Job
 - Same Requirements
 - Top Down
 - Them and Us
 - Management Style
 - Creativity

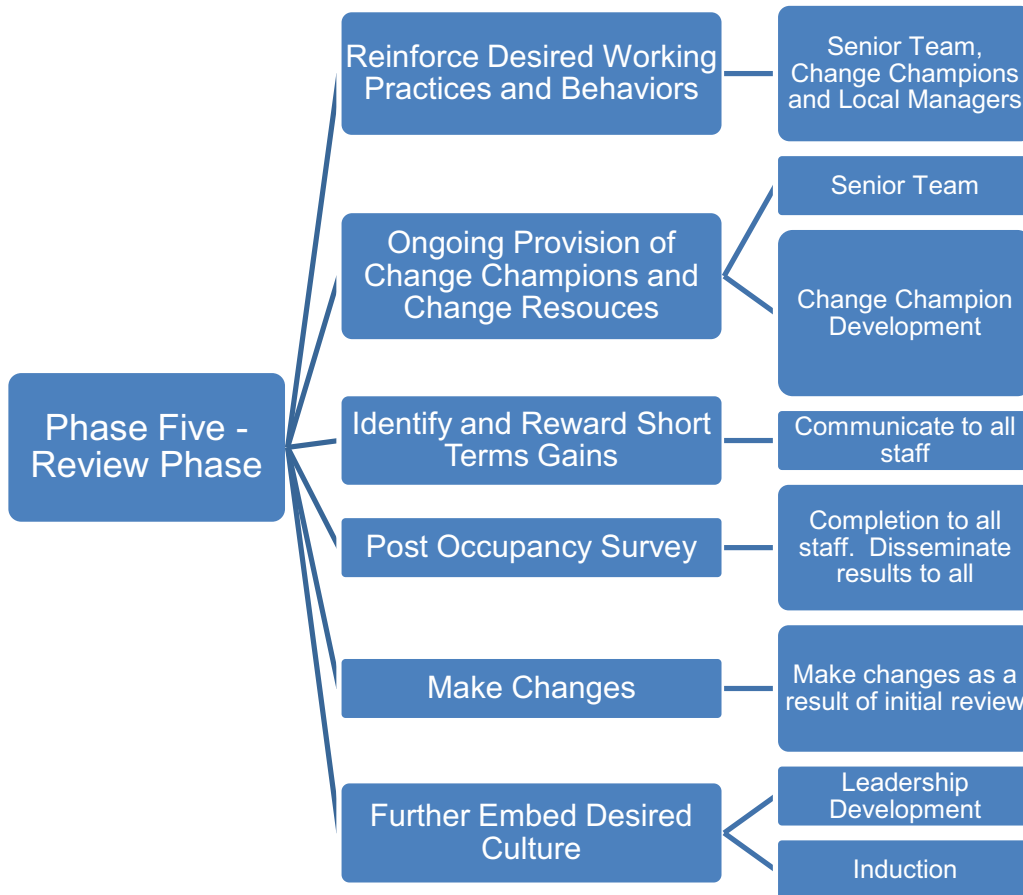
APPENDIX FIVE

Proposed Hybrid WWW Change Model









APPENDIX SIX

Additional Findings From Semi Structured Interviews With Building Users and Change Agents

Additional Findings From Semi Structured Interviews with Building Users

How Space is Being Used

Organisation One

there are more different kinds of space now..coffee shop, restaurant, learning resources centre, gym and they are well designed. I think it would be better if they were not all located in the same place because it can become quite a walk and that does put me off using them for informal meetings. C18

you see so many people using the coffee shops for meetings which is fabulous...and because there are different seating arrangements its easy to use the place for different purposes. C19

there are many more meeting rooms now and the majority don't have to be booked..so if you need somewhere fast it's less of a problem...sometimes you just need to get away from your desk and work things through with colleagues...that's how I use the meeting areas. C19

they don't really like meeting rooms to be booked which means you can grab somewhere if you need to concentrate or have a quick chat with someone. C18

its good having a central meeting point. Because it's a good size you know there will always be a space. The coffee is quite expensive, but they don't mind if you just want to use the place for a meeting. C17

you would be surprised how many people use the outside area for quick meetings...its quite tranquil despite being in the middle of all this. C16

there are so many breaks you can't really use the break out space for anything else. C13

you get a break in the morning and a break in the afternoon but most of us just stay at our desks...by the time you walk up for a coffee and walk back your time is up. C11

you sometimes just want to go somewhere for a laugh and there are not many places you can do that...the coffee shop and restaurant is often full of managers and the break out space is a bit close to work...we sometimes go outside. C13

Organisation Two

the office is very fluid..people are coming and going all the time...using different spaces to suit what they are doing at that particularly moment.. Some people work at home much more than others too, but that is fine. C27

teamwork, teamwork, teamwork....I remember the speech we were given and they were right, we do work better together. I would say the office with all of its sofa areas and meeting rooms encourages this. C24

I like the fact that every area has its own unique feel. I use the downstairs area when you want a bit of calm..maybe a one to one, and the coffee area when I want to work things through with a few people. The meeting rooms are great too when you want to get a larger group together or have a private conversation. C26

Environment

Organisation One

I was glad to see NTW coming in because I thought well at least it gives everybody a chance to move round and integrate hopefully more freely with everybody else...that has happened although not everywhere..I know some people who don't really leave their desks..they're not allowed to. C17

it's a much more pleasant place to be...you know with the different areas. I have begun to use the gym and learning resource centre...it's a friendlier place, we are much closer to people now. C19

there is more opportunity to work with different people now...I even work closer with people I've worked with for years. C111

Organisation Two

soft areas, coffee machines, meeting tables...they have also encouraged us to communicate better. C21

because I work from home quite a lot you sometimes get lost in your own world...just walking through the door at this place gives me a buzz...a sort of energy. C24

Hierarchy

Organisation One

you do see more people..but never the senior managers...they have their own offices you see...I've never seen them but I've heard they still have their own offices. C15

there is layers and layers of management in this place...it makes it difficult to put you stamp on what you do...they (the managers) just say oh you can't do that or I'll have to check that out...and they never do. C11

I would say there is pockets where there is less hierarchy but that tends to be in the less operational areas...you see it in the way people in those areas socialize...they go out with each other's....have coffee together. It's far less common in the operational areas. C16

I see my manager much more now, but not my senior manager. My manager is really supportive and brings us all together...it's the people further up who have the influence though. C12

Organisation Two

There is a far more fluid structure now because of the teamwork. We all have roles to fulfill but we tend to work together better as a group. It is not unusual for us all to come in early or work late in order to finish a project and we will help other teams. We mix in more. C25

Things haven't changed greatly. We are bound by a framework of rules and procedures and we all have our own responsibilities. I think we do interpret the rules more now and work better together...that could be due to the fact we all know each other more than we used to...but there is still a hierarchy. C24

Purpose and Vision

Organisation One

we have productivity figures to meet and any lost time has to be made up. C110

my senior manager told me we were having a refurbishment and I would be losing my office and sitting with the girls. C16

yes, we were told the purpose of NTW...changing where we sit and how that would make us more productive. We were appointed a NTW champion, we attended meetings and were asked our ideas. The facilities team has been very helpful too. C17

we could get involved if we wanted too but it was more of a management role. C17

Organisation Two

our philosophy is to focus on achieving the tasks...outputs...not the inputs such as where people are sitting. C26

We have been encouraged to work more flexibility, whether it be where we work, how we work or who we work with. There is certainly more freedom than when I first joined the organisation 16 years ago. As an example, I sometimes work from home, particularly if the weather is bad or I need to concentrate without distraction...there is no problem with this as long as it is logged. Personally I feel isolated when working at home so I don't do it often...both others do...it works for them. I often work away from my desk though. I like working with other people so we often decamp into a meeting room like this, or grab one of the large round tables..it works. The atrium is also great for a coffee and chat. C27

Induction

Organisation One

some form of training would have been useful because I am finding I have to manage people in a different way...my girls expect more negotiation. Possibly this is because you are there...you know working beside them, so they feel you know you more and can discuss things through with you more...it's not easy. C16

our induction does cover NTW. New starters need to know what it is, how it operates. Local managers will talk about specific arrangements, such as how to allocate desks, where break out space is and more about the culture of each section. C110

you just learn as you go along really. C13

Pilot Office

Organisation One

I spent time in the pilot office and we were allowed to configure the desks in different ways..we also looked at how best to store items and use the relaxation space. It was things like how to personalize your desk and reduce the amount of papers and files that proved most difficult...we have so much paperwork and with a clear desk policy it becomes a bit of a nightmare. C110

I worked in the pilot office, it looked nothing like what we ended up with but they did take on all of our ideas which is good. We did end up with more break-out and meeting space which was one of my concerns. C111

I think our senior team were quite worried about how we would react to the new office so they encouraged us to visit those that had already been refurbished..we used to troop up and have a mooch around...it looked much nicer than before...you know more professional and not so gloomy. I think that alleviated a lot of fear. C14

We all had a tour of the building and then came back to discuss how we felt about it. People had heard all sorts of rumours about not being allowed to put your personal things around you or having nothing on your desk except the file you are working on...it was all rubbish really...when we looked around the offices it was business as usual really. I knew I would have to champion it as people here don't really like change, so I made sure I spent time with everyone to make sure they were OK with what was planned...the facilities team were great too and answered any questions straight away...that made a big difference. C110

I wasn't aware of the pilot office but we did visit other offices, which had been through the redesign stage...we then came back as a team and worked with the facilities group to look at what would work best for us...like we didn't want the meeting rooms to be bookable, it was important for the rooms to be available as and when we needed them for group work. It all looks pretty much the same, but equally it's customized to what we need. C19

I remember visiting some of the newly refurbished offices a few days before our move...I think we were all reassured when we realized it looked like business as usual. C17

"I didn't even know there was a pilot office." C13

Organisation Two

we spent some time in the pilot office which was OK, but then we replicated it as much as possible back in our own offices..we moved desks where we could and spent more time working with each other...we wanted to try as many of the flexible methods as possible...in many ways it completely changed the way we work....much more collaboration and far closer to our managers. C24

I spent time in the pilot office. I was sitting beside my director even though being the most junior member of the team at that time. She talked about what she was doing and asked what I thought about this and that, we worked on things together...the whole team did. I think for the first time we saw the benefits of the new layouts. C21

not everything in the pilot was very good...it was very noisy and distracting...and I didn't like the idea of not having my own desk. Luckily we had a say in what stayed and what didn't so I think we have all ended up with pretty much what we wanted. C24

Participation

Organisation One

we talk much more now, and because there is more open space we can have more meetings between different section managers, certainly a few times a week..that never really happened before. C18

because we sit beside different people most days we work together more closely. We spot things that each other does and copy them or suggest different ways of doing things so NTW has helped us work together better, there is a lot more sharing of ideas now. C17

I know my team much better now and do feel as though we all contribute more openly, its much more close knit. Information is passed around the office better and we do discuss things more frequently. C19

I'm certainly closer to my manager now. It used to be quite formal, you know having to think carefully what you wanted to say to him..you always wanted to make a good impression...now he rotates around the office along with the rest of us, he has a laugh with us and takes his breaks with us sometimes...we talk about anything and I think because of that he has got to know us much better. I'm getting more involved in reporting and management information now because he is aware this was my background...I really feel valued...that only happened because we were talking about where we used to work. C14

No, not in our area because for a start the manager doesn't sit with us, he sits in his own area so if we have to speak to him we have to go and see him, or send him an email. I don't think NTW has brought any of us together really, we just do the same as before, come in, switch on and get down to our jobs...I suppose we may talk more between us because we move around and get to know each other...so yes we probably share more information, but not management stuff. C13

I don't suppose many of the people working here expect to be involved in decision making, I know I didn't when I was keying in. That's the sort of thing you become involved in when you get promoted. C110

Organisation Two

I feel my views are encouraged and valued much more than they used to be. C21

Leadership

Organisation One

I do talk to my manager much more often. Yesterday we spent a lot of time look at my personal development...you know courses and things that will stand me well for the future...that just happened because I was talking to him about his own career. Before, many conversations like that would be more formal and pre-arranged. C12

we have more team meetings now; I suppose that's because we have the break out space. Because of this I feel more in the loop...things get talked through and we have far greater opportunity to contribute. I'm not saying we didn't before...I could always speak with my manager but it was always one to one...now we have the space, you see. C12

we never really got close to our manager because they were separated from you; even people you had worked with for years and years often distanced themselves when they were promoted. Its not unique to my section...I've worked all over this place..I guess its how they have to be. It's a bit different now because we are sitting with them, they get to know you more and we get to know them. Mine certainly has a better idea of what I am good at and she encourages me more. C16

I am closer to my team now... we do have to have more meetings and I know them better than I used to just because I am around them more. I would say a lot of my time is taken up being with my team...that might be seen as a waste of management time but I think it is quite useful. Our tasks vary quite a bit so I'm finding it easier to assign jobs to people based on what they are good at. C111

Given the nature of our work in the projects centre, NTW has helped, particularly to encourage people to share experiences with one another...we do this by encouraging people to rotate where they sit each day, but more than just that, its about allowing much greater freedom than before, like using break space such as this, or break space in other parts of the building. Before it was very much fixed desks and often a 'this is my space' 'mentality...you know, very prescribed in how we did things. It really is down to managers such as myself, to encourage interaction and transfer of knowledge and ideas. Its about breaking the mindset of people. When asked how this had been achieved...my fellow section management group and I tried to get everyone involved in the move to NTW...we had a series of team meetings to share our ideas about what we wanted the place to look and feel like. Obviously we didn't have a say in things like furniture design or colour schemes...but we could talk about layout, how we would rotate seating arrangements, how we would use the break and meeting space etc. This sort of led to informal ground rules...jointly agreed, like some meeting rooms couldn't be booked or used solely by managers...they could only be used for impromptu project work or when people needed some concentration time. We also agreed that the break space could be used for lunch between 12 and 2 but after that should always be kept clear for impromptu chats by the team. We've stuck to this arrangement and I think there is more of a buzz around the place, certainly different to some of the other parts of the building. C111

Organisation Two

Our manager had this fear she would never be able to find us, or maybe we would do no work. I think it's a myth, most people sit at their desk for the majority of the time and only move around when is required. The fact that you have such an opportunity to work where is best for you on a given task is enough. Our manager encourages us to work in different environments now. C25

I don't manage any more, I set objectives. C27

all of a sudden we were made aware of how different teams could work together. We always worked well with our network offices or partners but not always so well internally. There was lots of communications coming from our chief executive (name given) about how we could work together better. C27

We have been encouraged and in some instances are expected to work differently. You manage yourself far more and have much greater freedom. Obviously we have to deliver but how we go about it is often up to us. For example no one asked me where I was going today...they never would. I think there is much more trust and self management. C25

Communications

Organisation One

I do speak with my team much more than I used too and I'm probably seen in a better light because its more informal now...well sociable...it does make it harder when someone hasn't met their target or needs to be disciplined...because they see you as a friend. I suppose I am trying to keep a professional distance. C110

because you are sitting with your managers you learn a lot about what is going on and we have more team meetings now...probably because it's easier to find a meeting room...yes, communication is much better. C12

there is definitely better communication within teams. Its common nature that if you are working closer to people you will discuss things more with them. Although I don't think that has occurred so much with the senior teams. There isn't much communication from them and we don't really have access to them either. C14

Oh yes, as a result of NTW communication has vastly increased. I would say there is too much communication...things that are more often irrelevant to our jobs. If you read every email you would never meet your performance targets. You sometimes want to say shut up or go away and leave me to my job. C110

Organisation Two

I know far more people in the organisation than I ever did before. Greater connectivity with others helps us learn so much, for example, I deal with grant applications for new business ventures, the forms are fairly standard and straightforward. Some applicants queried how they should be completed with colleagues from the enterprise team. This gave us an opportunity to innovate...we worked together...two teams to improve the applications process. This would have never happened before. C25

of course it is nice to be in the loop but sometimes I think 'why don't you just make a decision...its what you are paid to do and I'm not'...I don't really want that sort of pressure. C24

There was a big email culture emerging in the organisation, even within teams, messages would be flying around and more and more people would get involved. I think this was destructing trust between teams. We now are encouraged to talk, work with people face to face. This has broken down so many barriers. C27

I am much more involved now, we work as a team and all feel able to contribute. There were certainly barriers before, they have gone. C21

This is a very social environment and that helps us work better. It is more than just having space to work with each other, we have an active social community too...outside of work...the management encourage this and although we don't talk about work too much, it certainly helps us break down barriers. C23

As someone on job-share, I have often felt isolated in companies, this environment encourages us all to get to know each other and feel part of a team. C23

Creativity

Organisation One

I don't have time to come up with new ideas (laughs)...no seriously everything is pretty much formalized. We all have our own ways of doing things and we may share them with the others around us but they are silly things like using a ruler to read app[lication] forms..common sense things. C16

you sometimes come up with a good idea but I've given up suggesting anything because they just say 'you can't do that' or 'I'll have to go and ask the big boss' and you never hear another thing. C11

A few months ago I would have said we were not encouraged to change the way we did things...there was no encouragement you see...but now I've moved it's completely different...here we are continually looking for ways to do things better...it's all happened since NTW. Our manager wants us to spend time thinking about what we can do better and we talk about these ideas with him or together at team meetings. It's certainly down to the style of your manager. C12

Organisation Two

we brainstorm more, especially within our own areas. I think because we are all located together we tend to ask people around us for ideas and opinions. I think this has really helped us be creative. C21

yes we are empowered and its almost an expectation that we will identify better ways of doing things. C23

being around people helps us be more open to new ideas...I learn from the young ones, especially things like IT and video conferencing, I think they learn from the old brigade too just by watching us or working with us. C26

Non Territorial Working and Clear Desk Policy

Organisation One

at first I really hated it, I really did, I thought I was being watched all of the time because your manager is sitting right there (gesturing to the adjacent seat). Then you get talking to them and it becomes far less formal than it used to be, you know, talking about kids and holidays and stuff. If things start to go wrong, like with the system or something they also see it happening in front of them and things get sorted much quicker. It really has brought everyone in our team together. C12

i find managing the team has become far easier because I understand them all better. I know who works well with each other, who prefers to work quietly and who likes lots of different tasks all at once. I'm probably delegating more because I think 'oh she can do this much quicker than me', or 'let's see how they would do this', or even 'he would enjoy doing this'...it's all because you know people better, you see. It really is quite different but you can see the difference...there is so much more energy on the floors. C19

When I came here...I had no friends or family here. On my first day I was introduced me to the team I would be responsible for and showed me my office. It was nice, spacious, quiet...but completely remote...I hardly spoke to anyone in my first week, other than in meetings. People didn't seem to leave their desks not even at lunch. I really didn't like the environment. It entirely changed with NTW; we all sit together now, we go for a coffee, often have lunch...its much more sociable and a much better staff-manager relationship. You get to know your colleagues, how they operate and how to get the best out of people. C110

in our section there wasn't really any negotiation...it was a case of 'clear your desk and you will be told where you are sitting when you come in next week'. I tipped years of memories into a skip...and then when I came in on Monday the desk I was allocated for that week had no computer. C13

I imagine there is this idea that we will all work better as a team, but you don't really have time to sit and gossip...and if you did, I'm not sure it would be welcomed. C15

some teams had a big day where they brought in skips to throw out all of the old paperwork...the stuff you hoard. We pinned all of the old photographs on a wall and took them to the new office. I think that day relaxed us all a bit...we realized there is more to an office than your own desk. C13

Organisation Two

Clear desk policy was originally suggested...we used it in the pilot, but it never worked..I spent longer each day packing and unpacking. I ended up taking all of my things home with me each evening. I think you feel part of the furniture if you have your own desk, somewhere you can keep your things permanently and decorate. C24

Boundaries

Organisation One

I work far better with people now. Before you would say 'oh I'll just do it this way because I don't want to bother them'...'they look busy' or their office door is closed...now you just shout over or have a wander over to their desk. If someone needs to work quietly they would normally find an office to work in so then you know not to disturb them. C18

the fact that you are working more closely with people...especially your managers, gives a sense of openness. Before it was a big thing to go and see your manager, not that they were horrible, just it was like seeing the headmaster, now we all muck in more." C14

I sometimes go and sit in another teams space...people don't mind as we have quite a lot of peripatetic workers...you get to know people from right across the site...it helps when you need help from somebody...a familiar face is never a bad thing in the civil service C111

some of the managers have seen this a threat I am sure...it will be seen as a loss of status...there was lots of dissent when the idea was introduced. You have to embrace it and change the way you do things...people in your own team and elsewhere in the building are much easier to locate...more accessible, but you notice the difference in each area...I would say ours is quite noisy, lots of things going on...others its obviously more controlled...it certainly has a lot to do with how well the manager has accepted the change. C111

Those research participants who noted a change in the operating environment as a direct impact of workplace redesign and subsequent cultural change, noted the following examples of learning:

there was always a divide between the professional and administrative staff in our team, we addressed the doctors differently, some were quite scared of them really. We always knew there were ways their role could be improved...simple things like the way they prioritized jobs, the way reports were presented. We often had to take reports back to be redone and you could tell they didn't like it. Now because we are all working together, we just say 'why don't you do it like this' or 'how about we relook at the way this is done?'

Its more social too...we can grab a table and put forward different ideas..or you know, go for a coffee and talk things through. We haven't changed things radically...you are governed by the rulebook really, but we've improved things quite a bit...and I would say that's because we are working together more. C13

I work on the benefits management programme. By the very nature of the job I need to work with others looking at delivery plans and working out best case scenarios. Much of what we did in the past was at your desk...yeah, you would call people up or drop them an email but majority of the face to face discussion was held in scheduled meetings. The main reason for that was lack of space to meet up with people. Now I have meetings in the café, break out space, or the drop in meeting rooms. This way you get more ideas thrashed out before you come to make more formal recommendations. I would say you certainly save time and resources. Plans are also more likely to be accepted because you have had the opportunity to consult with more people...eye to eye, which I think makes a big difference C19

Around the same time as NTW we set up the incubator, where staff were encouraged to submit ideas and participate in projects. It was run from the Ideas Innovation Services Team, where I am based. It was very slow at first but gradually more and more ideas have emerged. The building design has facilitated this...there is much more available space for people to sit round a table and discuss potential improvements to the way things are done. As an example, a team came up with ideas to combat fraudulent claims. They had the idea to set up some simple systems and were given time to pull together a proposition.

The Innovation Services Team was brought in to help build the proposition and plan implementation. This is important because the people who have the ideas start to see that the management is taking it seriously. To be fair, most of the ideas come from managers and we need to mobilize ideas from all levels. I think they sometimes don't have enough ownership of what they are doing. C111

We have been reviewing our risk assessment procedures...it's something that everyone is involved in to some extent so our senior manager has been encouraging us to come up with proposals...we've worked with the innovation unit. They held some team building sessions with us and helped us look at ways to generating ideas...sort of brainstorming techniques. Yes, we've made good use of the break out space to look at ways forward. I would also add that its made us feel as though we can all contribute and there has been more ideas put forward for simple things like cutting out unnecessary transactions in the flow of processing claims. It makes everyone feel part of the team...not just a cog. A lot of it has to do with our manager...she pushes us to innovate and work with people like the innovation team. C17

We are big on efficiencies at the moment. We are being asked to identify cost savings all over the place. You don't really want to ask your team to do this because they start to take things personally...you know, thinking their jobs are at risk. Some of us senior officers meet up quite regularly to look at how we might come up with ideas...we do use the new areas for that...the café in particular but sometimes we might pop into a meeting room...it's not like a formal meeting...just a chat really. C110

Informally, we do come up with new ideas, that could be when you are on a break. Sitting next to different people makes you observe work in different ways too. A few weeks ago a few of us were looking at better ways to handle some of the documents, just to make our jobs a bit more manageable. We've put that into practice, but not officially, just between us really. Big changes tend to come from further up and I don't think there is much opportunity to have a say..it's a case of here it is now get on with it. C16

Depending on your manager you might be allowed to make some little changes to the way you do routine things. I've had some managers who would encourage you and others who would come down on you. Really though the volume of work is so much that you don't really have time to think about it. C13

I would say the office design generally has encouraged people to take more of an interest in their jobs and act more as a team. I would say the space is motivational in a sense that to me, the colour scheme, the furniture and the layout brightens people up...its given the place a new lease of life. Our team is working together really well now much better. We are working differently for sure...talking more...using the meeting desks and seating areas to talk things through together rather than just getting on with your own job.

The clear out day helped with this because we all sat around talking about what we needed to do our job and what we could get rid of...I think we all got a better feeling about what we did and how we all do things a little bit different. It was a good way to gel the team.

I would say we have carried that on and we do talk things through much more. I actually think one of the biggest challenges has been getting the managers to buy into the new way of working.

A lot of managers have been in post for over 20 years and they have always made the decisions. Sometimes you have to make the manager think the decision was theirs or else they would probably reject it. C18

Organisation Two

Those research participants who noted a change in the operating environment as a direct impact of workplace redesign and subsequent cultural change, noted the following examples of learning:

We have made some major improvements to our procurement process. I consider much of this has emerged from informal discussions with colleagues in different sections...when something is on your mind you tend to talk about it even if its over a coffee. The way the office is designed has facilitated this. C27

There are many examples of how the workplace has contributed to ideas, it's just part of the daily routine here..we are closer to people so you talk and thrash ideas out. Much of what we do is similar, things like engaging with different stakeholder groups...in the past we would often go about things in our own ways...now we share information much more and talk to each other. C28

I have developed new ideas and skills in project planning just through spending time with colleagues. Having the ability to move away from your desk and meeting in more informal space is very beneficial. When you are at your desk you are busy answering the telephone or checking your emails, you don't do that when you are in another part of the building. C25

Earlier today I spent time in the atrium talking through an idea for a new leadership programme. Some completely new aspects emerged. Someone thought it would be good to include something on international culture; I would have never thought of that but it makes perfect sense. Its little things like that which make all of the difference. C23

Additional Findings From Semi Structured Interviews with Change Agents

Purpose and Vision

Organisation One

there were many business reasons for the redesign, predominantly cost related...using areas more intensively and reducing the need for a number of leased buildings we had. C113

we wanted to change the perception of senior managers and the way the organisation was structured. Things like managers having their own offices or functions acting independently of each other. Particularly functions such as HR and finance who need to work together. We also wanted to include higher proportion of meetings rooms and meeting space. Uniformity was important too...the refurbishment has delivered a uniform approach to each floor so that we've got pretty much the same open plan space and design everywhere there's no there are no visible differences between departments. Although some senior managers have retained their single offices, our chief executive works in an open plan suite. C112

we received a number of comments of 'well the board don't work in this way' and the 'board don't follow non-territorial working principles' but you just have to tell them that common sense needs to prevail. C112

at the outset I would say the NTW and Estates Management Group were setting the vision and saying this is the way you're going to be using space and this is what benefits it's going to bring. I wasn't project manager at that time but I was noticing that this approach was rubbing up people the working way C115

Organisation Two

our chief executive at that time wanted to create a new culture, he talked to all staff about his vision of a modern, forward thinking organisation, a non hierarchical philosophy...where people could work wherever best suited them...continually innovating and coming up with new ideas. C31

the whole project was led by our chief executive...he talked about the need to change the way we operated and become less fixed to our old work practices. He talked about the need to remove the hierarchy and bureaucracy that were in place and create a more inclusive environment where people knew each other and worked more closely together. C30

the change project was led from the very top...I would say the senior team were passionate about this and they certainly wanted everyone to share that passion. C29

the chief executive wanted to create an environment which better allowed for a work life balance and empowered teams. C29

the chief executive stated "we are aiming to create a new building that will reflect the dynamism our organisation represents and one that will support the create, collaborative and intelligent workforce and workstyles that we need to practice to deliver our new strategy. ...we want to create an office environment that is truly exemplary in the way that it operates and is used...and in the way that it supports its users. C30

Process of Change

Organisation One

the change team was set up in February of '06 and I think all our floors had to be up and running by April of '07. Each move roughly took about three months or so to plan. The challenge that we had was to try to understand everything about working without walls, non territorial working and everything about refurbishment. So we had a number of major challenges. C112

after the introductory training, it was bang bang bang basically from April until July. We then had to be ready to move four floors. C114

we had the education process for staff. This involved regular meetings with people working in teams...normally the managers who would cascade the information. C112

we started with three pilot areas...we furnished them in the way we envisaged the layout to be...each housed about 60 people..volunteers. The IT wasn't totally functional, but people could come and use the space – we invited two different areas across the organisation to trial it and give feedback...the pilot areas were supposed to replicate what the final design would be...but it ended up being completely different. C112

the most significant bit of the change management activities was making sure that the message was getting out about what was going on. We ran workshops with managers in our business areas to let them know what we would be doing. C112

we realized we needed to better understand the unique characteristics of each business area...to do this we established change management teams in each area...this was a mixture of representatives from the estates management group, NTW group and nominated people from each section. This put decision making as much as possible to people affected in the business areas. C112

after the first move we sought agreement from within the management team about issuing a newsletter...yes, they were happy with that. Later we then suggested augmenting the issue of the newsletter with face to face meetings involving the team leaders initially to explain our role and what would be happening. I don't think the message was really getting back to the teams. In some areas we also followed this up with team meetings, where we attended meetings and had a sort of an open question and answer session with individuals about their fears, misgivings, did they understand what was in the newsletter etc. We then explained the next stages in terms of carrying out the de-cluttering process; why that was necessary, why it was important to keep clear desks and the like. I think the team leaders who allowed us to do this benefitted...because they got fewer questions. C112

after the completion of the first phase we also put together a video saying what NTW was how it affected people and the benefits it had brought about....this was also used when introducing the ideas to other teams. C112

we were on hand after the handover...to sort of settle people in and deal with all of the questions...like 'how do I adjust my seat', 'how do I log on', 'what can I put on my desk and in my locker'. C113

so many rumours had been flying around, it was important we were there on the first day. We also had IT and telephony specialists because invariably peoples telephones weren't working or computer wouldn't connect...I think lots of people were hoping it would all fail. C114

Organisation Two

managers were asked to ask their teams what ways of working they would like to see. We spent quite a lot of time on this...months...and had team meetings, brainstorming sessions...whatever worked in individual teams. People could also put their ideas direct to the chief. He would also attend many of the sessions to see what people wanted first hand...and I suppose to make sure the correct message was being relayed by managers. C30

the response was immense...people really did engage and put forward lots of ideas. I suppose we initially thought there would be a lot of unrealistic proposals, but that wasn't the case. I think people knew what could be done and what couldn't.

Nothing was off limits though...the senior team wanted to see radical change to the way we did things and primarily that was about working more creatively. C29

Workplace of the Future was created to give the place a new feel...a new beginning. C31

a space was allocated for a pilot project. It wasn't huge...about 600 square metres. Our design consultants created an experimental workspace here...it had everything - desks, hot desks, meeting space, a cafe, touchdown space, library, individual space for concentration, roaming profiles, internet access. C30

anyone could volunteer to work in the pilot space...I think about 100 people did and we made sure there was representatives of every team. All levels of manager were required to spend time working in the pilot office and they had to hot desk. We wanted to break away from the working environments that people expected and be open to change. C29

constant change of personnel in the pilot office was vital...it enabled us to learn about what worked and what didn't. It also identified potential resistance and prepared people for what would eventually become the new workplace design. C31

to help us better understand feedback from the pilot and give all members of staff an opportunity to inform us about how they use their own workspace and what improvements could be made, we designed a workbook which was part questionnaire and part educational. I would say this reinforced our commitment to engaging with our colleagues and further informed staff about the benefits of what we were trying to achieve. C29

we also created a large model of the new site to help colleagues familiarise themselves. C29

the change agents were able to really understand the individual needs of the teams...a local perspective...they played a critical role in ensuring a smooth transition. C31

the change agents spent a considerable amount of time working with teams and individuals to best understand their needs. C30

the change agents also had direct access to the senior management team...we had a number of the senior team who acted as ambassadors for the new ways of working. You could call them enablers...they had the power to push things through. C31

the workshop sessions that took place a week or so before the move provided an opportunity for teams to get to know each other and raise any queries they may have. C30

about the same time as the workshops we also had compulsory inductions...this was more about facilities and systems...things like where toilets were, where social areas were, where different sections would be located, evacuation procedure etc...again we went down in teams to encourage a team spirit. C31

looking back you could say it was overkill...I've been involved in a lot of office moves over the years and we never went into the detail involved here...but it was for a reason...we were trying to change so much...the workplace was just a part of it...we were introducing new technologies, new ways of seeing and doing things...more interaction, more visibility, greater amounts of sharing and a level of personal ownership that had never been experienced...so you needed a very detailed and quite drawn out change process. C29

after the move we realised it didn't end there...we wanted to maintain the momentum and really continue to promote the new workplace and ways of working. It would have been too easy for people to get back into their normal working arrangements. The change team and ambassadors remained and we continued to work with the individual sections to promote better use of the space and to encourage things like home working, hot desking, project working etc. C29

the post-occupancy survey commented positively on the removal of visible status symbols such as individual offices and management only areas. C31

the change process and level of involvement was also well received. People talked about having no fear or anxiety about their move. C31

of course there were some areas that colleagues said could have been improved...temperature in particular...some thought the building was too warm and others too cold. C30

Resistance to Change

Organisation One

there was so much fear and resistance when we told people they would lose their desks... for various reasons some didn't like the idea of sitting at a different desk every day because of the hygiene issues...you know, some people make a mess, spill their drinks on a chair and the like...that's why some managers have banned food and drink at desks. I also had an example where a senior manager said 'you know i'm a team leader i'm important i'm not moving desk I want to sit by a window every day thank you very much'. You also came up with various excuses why people couldn't move desk...they needed a special chair, or a footrest, or special software. C114

most of the resistance was about the IT being much slower...which it probably is...mainly because no one has their own PC and the network has to build a profile everytime they log on...people exaggerated though saying it took up to an hour to log on...it's been no more than 15 minutes for me...and that's the time you can get things out of your cupboard and set your desk up for the day. C113

some of the resistance was valid but most were excuses. C115

because some managers ignored NTW, we also received some queries from staff saying that because such and such a manager wasn't operating NTW they didn't see why their manager was forcing them to move...you would then go and speak with the manager and they would always have an excuse...what can you do? C112

looking back I think everyone should have been better introduced to NTW and what we were trying to achieve. We are better now... there is lots more communication and we try to prepare the managers for the change issues they will face...there should have been more of that at the beginning. C114

you were dealing with so many different personalities it was very difficult. C115

some managers were insulted by our thoughts about the space allowing for better teamworking and interaction...they thought it was a criticism of their management...saying hold on a minute my team works well as a team now...what are you trying to suggest. I could see their point and you didn't want to get into that sort of debate. C112

Organisation Two

the managers did want more quiet space because that is what they had been used to...they are also often less likely to work from home because they have more meetings to attend and the like...so we could understand why they wanted areas where they could go to work in peace. C31

we probably didn't anticipate how much the social space would be used..we did have to add more meeting rooms and have some on a booking only basis..which wasn't what we originally wanted...the lack of space did create some problems in the early days...but again we changed it very fast...I think people respected the fact that their views were being auctioned so quickly. C30