

Subject vs Functional: changing organisational structures and the transformation of academic libraries and the profession of librarianship

C. L. Robinson (née Hoodless)

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

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Abstract

Background: Due to the uncertain and shifting environment they are operating in, academic libraries are attempting to transform. In response, their organisational structures are changing, with some adapting their subject-based models, whilst others have restructured around functional teams. Aims: The aim of this research is to investigate these changes to the organisational structures of academic libraries in the UK and assess how these relate to the transformation of the academic library. In doing so, the relationship of academic libraries with the wider organisation, as well as the impact on librarianship as a profession, are investigated.

Methods: An exploratory, sequential mixed methods design was used for this research. The initial, qualitative strand consisted of a multiple, comparative case study of six academic libraries in the UK, with a range of organisational structures along the subject-functional spectrum. This was followed by a survey of library directors in the UK.

Findings: Despite organisations within the same field often resembling each other in terms of organisational structure, the results of this research show that the structures of academic libraries in the UK are diverging as subject and functional elements are being combined to varying extents. This is occurring because of differences in the remits of individual academic libraries, with no consensus regarding the future role of libraries within universities and the positioning of jurisdictional boundaries emerging. In addition, the differing ways library leaders are interpreting and prioritising the paradoxical pressures academic libraries are facing is also influencing structural choices, with subject and functional structures emblematic of these contradictory pressures and in particular the conflict between professionalism and managerial agendas within higher education. Altogether, functional structures are connected to the diversification of the profession, but also have the potential to reduce the influence of the profession within the library, and impact on professional identity.

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1. Introduction

1.1 Background to the research

This research focuses on the changes that are occurring to the organisational structures of academic libraries in the UK and how these relate to the transforming role of libraries within universities. Previously, academic libraries held a secure and irrefutable position within their institutions as the key provider of information to users. However, with the development of the networked environment, libraries are no longer the primary means for discovery of information as they are in competition with a range of easily accessible and more convenient online services (Connaway, 2013; Dempsey, 2008). Therefore, the future of all libraries has been brought into question and they are now operating in an uncertain and shifting environment. In order to ensure academic libraries remain relevant, it is argued that they need to redefine and expand their roles and responsibilities, with a particular emphasis on alignment with their institution's strategic aims and priorities (Cooper et al., 2022; Cox, J., 2018; Evans & Schonfeld, 2020; Malpas et al., 2018; Oakleaf, 2010). This is beginning to impact on decisions regarding organisational structures in academic libraries in the UK and, consequently, the professional roles available to librarians.

1.1.1 The higher education environment in the UK

As academic libraries explore opportunities to expand beyond their traditional role and align with their institution, they are now increasingly being shaped by the complex higher education environment they are operating in, which includes a range of interrelated political, social, economic and technological factors (Cox, J. 2021). Successive government policies in the UK, and in many countries around the world, have focused on reducing state funding for higher education and developing an expanding higher education sector governed by market mechanisms (Brown, R. & Carasso, 2013; Foskett, 2011; Olssen & Peters, 2005). Universities are now in competition, both nationally and globally, for funding, with the intention that this will improve quality, efficiency, value for money and choice in the sector (Cox, J., 2021). This competitive environment has been intensified by economic challenges, such as the global recession beginning in 2008.

Alongside the marketisation of higher education and increased competition, there has been the growing focus on accountability and measuring the quality and impact of teaching and research, which is exemplified by the introduction of the Research Excellence Framework (REF), the Teaching Excellence Framework (TEF), the National Student Survey (NSS), as well as the establishment of various university league tables (Brown, R. & Carasso, 2013; Hayes, D., 2017a). Significantly, there has been a separation of both funding and assessment for teaching and research in higher education that has resulted in a growing divide between these activities in universities, with research often being regarded as a higher priority due to the prestige and rewards associated with it (Brown, R. & Carasso, 2013; Elton, 2011).

Nevertheless, with the reduction in state funding and the introduction of tuition fees, there has been a shift towards consumerist principles within higher education, resulting in a particular focus on the student experience as students expect value for money from their degrees (Brown, R. & Carasso, 2013; Cox, J., 2021; Maringe, 2011; Molesworth et al., 2009). There has also been a substantial increase in student numbers and a growing diversity in the student population following policies aimed at widening participation in order to promote social mobility, along with the appeal of attracting international student who pay higher tuition fees (Brown, R. & Carasso, 2013; Cox, J., 2021). Altogether, this is resulting in a shift in the focus of pedagogy and curricula away from subject content, towards developing the employability skills of students, as well as a demand for more

flexible and personalised learning experiences to support the diversifying student population (Furedi, 2011; Kornelakis & Petrakaki, 2020).

Furthermore, technology is interwoven with the marketisation of higher education. Not only has it facilitated the paradigm shift occurring in higher education away from the transmission of knowledge by providing ubiquitous access to a growing quantity of information, but technological developments have also enabled the adoption of more flexible and personalised learning models (Cox, J., 2021; Munro, 2018). Universities, therefore, have to keep up to date and adapt to an everchanging technological landscape in order to remain competitive and attract students. As well as teaching and learning, technology also underpins the transformation that has occurred in research with regard to digital scholarship, open access, research data management and digital humanities (Cox, J., 2021). Altogether, the some significant technological trends shaping higher education include hybrid, blended and online learning, learning analytics, big data, artificial intelligence, open educational resources, adaptive learning technologies and mobile learning, with the COVID-19 pandemic accelerating many of these trends (Alexander et al., 2019; Brown, M. et al., 2020; Pelletier et al., 2022).

1.1.2 The role and purpose of academic libraries in the UK

It is widely acknowledged that this shifting higher education environment is fundamentally changing the role of academic libraries as they attempt to demonstrate value to their institution, compete for internal resources and contribute to institutional competitiveness in the sector (Cox, J., 2021). Along with designing state-of-the art buildings to support and attract modern students and researchers, an obvious way that libraries can do this is by promoting the unique resources held by their institution (Adams Becker et al., 2017; Cox, J., 2021). This includes archives and special collections, but also resources generated through research activities, such as journal articles and

data (Adams Becker et al., 2017; Anderson, 2013; Cox, J., 2021; Levine-Clark, 2014). In many ways, the library is being turned "inside out" (Dempsey, et al., 2014): in addition to the traditional role of acquiring externally-produced content and making it available to a restricted community of users, libraries are now also taking responsibility for managing internally-generated informational assets and making them available beyond the institution. Recent developments such as library support for open access and research data management exemplify this strategic shift. Dempsey (2008, 2012a, 2014; Dempsey et al., 2014) has long discussed how the networked environment has greatly changed the workflows of research and learning, and, impacted upon the strategic positioning of libraries.

Significantly, due to this strategic repositioning, there has been a shift in emphasis away from collections towards being more user-focused, which involves engaging more with users and becoming embedded within the learning, teaching and research workflows of their institution (Connaway, 2015; Dempsey, 2012a, 2015; Evans & Schonfeld, 2020; Pinfield et al., 2017). This concept is sometimes described as 'the library in the life of the user', and can be seen to have been influenced by the increasing focus on the student experience and other factors relating to the marketisation of higher education, along with distancing of the library from user workflows due to technology (Connaway, 2015; Dempsey, 2017).

Consequently, libraries are taking on a range of new responsibilities related to teaching and research to support users and demonstrate their value to their institution, which is leading to a growing diversification of library roles and skillsets (Corrall, 2014; Dempsey & Malpas, 2018; Hoodless & Pinfield, 2018; Jeal, 2015). This is particularly in relation to research support, open access and open science agendas where there is potential for the library to make a clear and substantial impact in their institution (Auckland, 2012; Brewerton, 2012; Corrall et al., 2013; Cox, A. M. & Pinfield, 2014; Delserone et al., 2010; Drummond & Wartho, 2009; Herther, 2009; Jain, 2011; Potvin, 2013; Walters, 2007). Nevertheless, whilst in can be more challenging to demonstrate how the

library contributes directly to student success, there are many examples of academic libraries expanding beyond information literacy teaching into supporting digital literacy, academic skills, learning analytics and even well-being (Adams Becker et al., 2017; Cox, J., 2021).

1.1.3 Strategically driven organisational restructuring and academic libraries

It is widely acknowledged that strategy is inextricably linked to organisational structures, and for an organisation to be effective these elements need to be in alignment (Chandler, 1962; Pascale & Athos, 1981; Quinn, J. B., 1980; Waterman et al., 1980). Therefore, there are examples of academic libraries carrying out restructuring exercises in order to signify a change in the strategic direction. One notable example of such a restructure occurred at the University of Arizona (Berry, 2002), with strategic alignment also being the main driver in restructures at the libraries of the Macquarie University in Australia (Brodie, 2012), the University of South Australia (Doskatsch, 2003) and the University of Connecticut (Franklin, 2009). However, there has been an expectation of more widespread and radical change to academic library structures as libraries expand their roles and strategically align within their institutions (Biddiscombe, 2002; Corrall, 2014; East, 2007; Hoodless & Pinfield, 2018; Jeal, 2015; Moran B. B., 2001; Moran B. B. et al., 2013). To some extent, it could be argued that these expectations are beginning to occur through the growing trend towards restructuring around functional teams and forgoing long-standing subject-based structures.

In the UK, most university libraries have traditionally organised their academic services librarians around the structure of the academic departments of the institution they served, whether these are termed departments, faculties or schools, the key characteristic of the dominant organisational model is that librarians are organised around subjects (Carpenter, 2007; Corrall, 2014; Martin, J. V., 1996; Woodhead & Martin, 1982). Thus, the 'Subject Librarian' role developed, and despite significant changes and developments to the role over the years, leading to alternative job

titles such as 'Liaison Librarian', 'Outreach Librarian' and 'Academic Support Librarian' emerging, the key traditional organisation around subjects remained (Brewerton, 2011; Corrall, 2014; Gaston, 2001; Pinfield, 2001; Rodwell & Fairbairn, 2008)¹. However, in 2012 the University of Manchester Library (UML) completed what has been described as a radical and ambitious restructuring exercise, whereby the traditional subject-based structure was effectively abandoned in favour of a structure based on functional teams (Bains, 2013, 2014). Error! Reference source not found. below illustrates how the library structure changed.

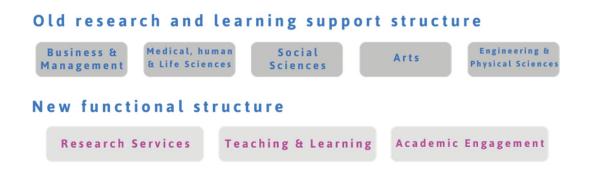


Figure 1.1: Comparison of the old subject-based support structure and the new functional support structure at UML (from "Manchester's new order: transforming the academic library support model", by S. Bains (2014). Retrieved February 7, 2018, from <u>https://www.rluk.ac.uk/manchestersneworder/</u>

Essentially, in an attempt to align with the overall strategic priorities of the university, the UML created a Research Services team, which is able to focus on developing new services around such areas as research data management, bibliometrics and open access, and a Teaching and Learning team, which contains posts dedicated to e-learning, copyright and learning development (Bains, 2013). The final team created was Academic Engagement, which contains staff who continue

¹ Concerning terminology, throughout this thesis the term 'subject librarian' will be used for simplicity but this will actually refer to any librarian role, which constitutes the central component of a subject-based library structure.

to work directly with the academic departments, however, Bains (2013) states "they are certainly not traditional subject librarians" (p.8), since their focus is not on providing support but on marketing and providing a point of contact between the academic departments and the rest of the library. The Academic Engagement team at the UML and similar teams elsewhere, are often equated to more corporate concepts, such as "key account managers" (Bains, 2013, p. 9), "facilitators" (Banfield & Petropoulos, 2017; Crossno et al., 2012) and "consultants" (Eldridge et al., 2017), which all have an emphasis on partnership building.

Since the UML carried out this restructure around functional teams in 2012, other libraries in the UK began restructuring around functional teams. Hoodless and Pinfield (2018) investigated this phenomenon by interviewing 11 senior library managers at a range of university libraries in the North and Midlands of England in order to determine how functional teams, which focus on research support and teaching and learning support separately, were being used as an alternative to a predominantly subject-based support model. The results of the research showed that there was a distinct split in opinions around this phenomenon, with some library managers believing that restructuring university libraries around functional teams was the way forward, and others remaining sceptical of this new approach and defending the continuing validity of the long-standing subject-based structures.

1.2 Contribution to knowledge

Therefore, this was an ideal time to expand on the research of Hoodless and Pinfield (2018): when some library structures are beginning to change and the effect of those changes can be assessed. There is a growing body of literature regarding the future positioning of academic libraries in their institutions, and Dempsey (2012a) discusses the reshaping of libraries, but this discussion rarely focuses on organisational structures. The results of the study enhance the understanding of

the shifting role of academic libraries and librarians in relation to their institutions and the changing information landscape, contributing to theory development in this area as well as affecting professional practice and informing the design of library organisational structures and service provision in the future. It also contributes to organisational theory regarding the interconnectedness of strategy and structure, as well as management theory regarding the use of restructuring exercises during time of strategic change. Altogether, the study will relate to wider questions of organisational change and the future of professional work in the context of large-scale societal and economic shifts, such as the digital economy, 'datafication' of society, and marketisation of public services, such as higher education.

1.3 Aims

The aim of this research is to assess the relationship between organisational structural changes and the transformation of the academic library, with a particular emphasis on exploring and explaining how functional teams are being used in university libraries in comparison to subject-based teams to provide academic services, including teaching, learning and research support to users. In doing so, how these changes to structures relate to the relationship of academic libraries with the wider organisation and the changes occurring in Higher Education, as well as the impact on librarianship as a profession, will be investigated. It builds on the previous research carried out by Hoodless and Pinfield (2018), as well as other key studies, such as that carried out by Corrall (2014).

1.4 Objectives

- 1. To explore trends in the use of functional and subject teams in academic libraries in the UK.
- To identify the factors influencing choices regarding organisational structures and how they relate to the developing role of academic libraries and overall changes occurring in Higher Education.
- To assess the attitudes of library staff and senior library managers around the impact of subject and functional structures on the library and ways of working and how these perceived impacts relate to structural choices.
- 4. To explore the impact of specialisation and the increasing use of functional teams/roles on librarians and the connection to changes occurring to librarianship as a profession.

2. Literature Review

2.1 Introduction

This chapter presents the relevant literature relating to this study, which due to the interdisciplinary nature of the research includes literature from the library and information sciences (LIS), the management field and research into higher education, as well as literature around research into the sociology of professions. It begins with an initial exploration into the use of organisational structures in order to be able to relate the current research to overall organisational theory. From this, the importance of organisational structures in relation to the environment in which they operate is established. Consequently, the literature review goes on to discuss the overall higher educational context, as well as political and societal changes affecting academic libraries, in order to explore the environment in which academic libraries are currently operating. This impact of this environmental context on the changing nature of academic libraries is then examined before key trends and examples of nestructures that have taken place are identified. Finally, the impact this is having on librarian roles, skills and the profession as a whole is presented. Altogether, this literature review contextualises the research and synthesises the relevant literature, identifying the key concepts underpinning this study.

2.2 Organisational theory and structures

2.2.1 Organisational structures

Organisations are a key element of society that shape everyday life (Daft et al., 2017; Perrow, 1991; Tolbert & Hall, 2016). We are, what Perrow (1991) terms, "a society of organizations." Despite their significance, organisations can be difficult to comprehend because of their intangibility (Jones, 2013), which is illustrated in the definition provided by Daft, Murphy and Willmott (2017) who characterise organisations as "(1) social entities that (2) are goal-directed, (3) are designed as deliberately structured and coordinated activity systems, and (4) are linked to the external environment" (p. 11). This is clearly a wide-ranging definition that encompasses academic libraries; however, the status and role of academic libraries are further complicated by their existence within a larger organisation: the university. Both can be described as non-profit organisations, yet, there are many other ways to characterise the diverse range of organisations in society. For example, Blau and Scott (1962) developed a typology, still referenced today, of four types of organisation based around the prime beneficiary of the activity undertaken; business organisations, mutual benefit organisations, service organisations and commonweal organisations. Nevertheless, universities, and consequently the academic libraries within them, do not fit neatly into one of these categories. Traditionally, they both incorporate elements of a service organisation that serves a particular group of people who come to it for help, but also a commonweal organisation since, particular the research role of the university, aims to benefit the general public and society as a whole.

However, regardless of the type of organisation, the third characteristic of organisations provided in Daft et al.'s (2017) definition highlights that an important aspect of all organisations is the structure assigned to them. The concept of organisational structure is difficult to define, and the

plethora of different definitions is accounted for by Tolbert and Hall (2016) due to the distinction between formal and informal structures. When defining organisational structures the formal element is often focused on, such as in the definition provided by Mullins (2016) who states that:

"The purpose of structure is the division of work among members of the organisation and the co-ordination of their activities so they are directed towards the goals and objectives of the organisation. Structure makes possible the application of the process of management and creates a framework of order and command through which the activities of the organisation can be planned, organised, directed and controlled. The structure defines tasks and responsibilities, work roles and relationship, and channels of communication." (p.395)

According to Drucker (1989):

"Good organization structure does not by itself produce good performance...But a poor organisation structure makes good performance impossible, no matter how good the individual managers may be. To improve organisation structure...will therefore always improve performance" (p.223)

Therefore, the formal structures of organisation are a serious consideration for managers, with the major decisions being around hierarchy and control. The main form of structure found in many large-scale organisation is that of bureaucracy, which Weber (1946) identifies as using the following characteristics in an attempt to run an efficient organisation:

- a hierarchy of authority;
- official jurisdictional boundaries;
- specialisation and division of labour;
- rules, procedures and regulations;
- a system of discipline and control and;

• employment of individuals holding appropriate, regulated qualifications.

Bureaucracy developed in response to organisations increasing in size and complexity, with some of the key advantages being the predictability and routine of the work being done, clarity of roles and increased accountability, as well as the removal of partiality and nepotism (Daft et al., 2017; Jones, 2013; Weber, 1946). Yet, many criticisms of bureaucracy have developed over the years. For example, Blau and Scott (1962) identify over-bureaucratisation as an issue that can manifest in different ways for the four types of organisations in their typography, with service and commonweal organisations being considered over-bureaucratised "if in consequence of preoccupation with procedures, rigidities develop which impede professional service to clients or effective service of the public interest" (p. 45). This over-bureaucratisation can often be informally mislabelled as bureaucracy itself. Bureaucracy can also be inflexible, therefore, due to rapidly changing external environments and increasingly complex knowledge systems, there have been calls for structures which are flatter, decentralised and more flexible in order to encourage knowledge flows across the organisation and promote innovation (Mullins, 2016). As argued by Castells (2010), in order to adapt to the "network society", organisations need to "shift from vertical bureaucracies to horizontal corporations" (p. 176).

Consequently, concepts such as the "boundaryless organization" have developed, which aim to remove the official structural boundaries between hierarchical levels, horizontal organisation functions, external communities, such as customers and suppliers, and geographical boundaries, thereby allowing the free flow of ideas, information and resources (Ashkenas et al., 2002). Whist bureaucracy has become very unfashionable and there were expectations and demands for its demise, this has not occurred. It has been identified that a "hybridization" of bureaucracy appears to be a more accurate description of what is occurring in many organisations, whereby there is a move away from Weber's traditional bureaucracy, but a bureaucratic form of control and coordination still exists (du Gay, 2005; Reed, 2005). Despite the name, even advocates for the "boundaryless

organization" do not believe there should be no boundaries at all, and acknowledged that a certain level of control and boundaries are required for all organisations (Ashkenas et al., 2002).

As well as hierarchical considerations though, within a formal organisational structure decisions need to be made as to how activities and roles will be divided up and grouped horizontally, Mullins (2016) identifies the following ways this can be done:

- Function (or major purpose)
- Product or service
- Location
- Nature of work performed
- Common time scales
- Nature of staff employed
- Customers or clients to be served (p.400-402)

The most common way for organisations to be divided up is functionally, whereby "the main divisions are defined by the major areas of skills and knowledge that the organization requires to accomplish its tasks" (Tolbert & Hall, 2016, p. 54). All types of organisational structure have their advantages and disadvantages. A structure based on function arguably promotes efficiency, since it is usually relies on a vertical hierarchy, and allows for in-depth expertise and specialisation to develop, but can lead to poor coordination and communication across the functional units, can be slow to adapt to environmental changes and can stifle innovation (Daft et al., 2017; Tolbert & Hall, 2016). In addition to the above ways of structuring an organisation, a matrix structure is another option. This was developed in the 1960s in the aerospace industry in order to take advantage of the benefits of more than one approach to the division of activities, usually functional and product, by creating a dual authority structure, which thereby promotes horizontal coordination, yet this often proves difficult to manage (Duncan, R., 1979; Mintzberg, 2003; Tolbert & Hall, 2016).

Nevertheless, the reasons for choosing a particular organisational structure are complex. When attempting to explain variations in structures, many early studies used a "closed-system" approach that focuses on the characteristics of the organisations, predominantly size and technology, while an "open-system" approach later developed that considers the external environment (Tolbert & Hall, 2016). There are arguments that certain structures are better suited to particular situations. Burns and Stalker (1961), for example, argued that when the external environment is stable "mechanistic" structures, which are characterised as very bureaucratic with high levels of hierarchical control, specialisation and formalisation, will dominate, however, when the external environment is more unstable "organic" structures are more appropriate since they are flatter with more flexible job roles and less formal control.

From these explanations of structural variance, contingency theory developed, which proposes there is no "one best" structure and that in order to be successful organisational characteristics, such as structure, should be examined and developed in line with two factors; the external environment and the organisation's strategy (Donaldson, 2001). Child (1972), however, challenged this deterministic view, arguing that the "strategic choice" of the decision makers plays a huge role in the choice of organisational structure. In Child's (1972) opinion, they are able to select, interpret differently, and even manipulate the environmental factors they are reacting to, as well as inevitably being influenced by their personal judgements regarding the impact of formal structures on organisational effectiveness. In addition, institutional theorists believe that organisational structures can be copied from other successful institutions and they can reflect particular trends of the time, resulting in similar structures among organisations (DiMaggio & Powell, 1983; Tolbert & Hall, 2016).

In two seminal papers, Meyer and Rowan (1977) and DiMaggio and Powell (1983) sought to explain organisational homogeneity, with both challenging the view that the most appropriate organisational structure will unavoidably be chosen based on internal and external imperatives.

Instead, they argue that in highly institutionalised organisations structures will be chosen in order to provide legitimacy, rather than efficiency, which will actually aid survival. DiMaggio and Powell (1983) present a theory of institutional isomorphism, or the 'iron cage', identifying three mechanisms of isomorphism:

- coercive, relating to pressure from other organisations and cultural expectations around legitimacy;
- mimetic, where there is the tendency to copy successful organisations, particularly during times of uncertainty;
- 3. *normative*, which stems from the influence professionalisation has on generating similarity between organisations.

In spite of this, David and Bitektine (2009) argue that since these paper were written there has been a move towards researching organisational diversity, indicating a potential trend towards organisational divergence, as opposed to homogeneity.

2.2.2 The McKinsey 7S Framework and organisational change

Despite the arguable importance of organisational structures, as stated by Waterman et al. (1980), "a structure is not an organization" (p.14), and while it is still important, they ascertain that there are other interconnected, fundamental elements of organisations, which need to align in order to have an effective organisation (Pascale & Athos, 1981). The links between structure and strategy have been long established. Chandler (1962) defined strategy "as the determination of the basic long-term goals and objectives of an enterprise, and the adoption of courses of action and the allocation of resources necessary for the carrying out of these goals" (p.13) and determined that organisational structure should be designed in order to deliver the organisation's strategy.

This "prescriptive" notion of strategy before structure is now disputed though, with some arguing that strategy could also be more "emergent" developing incrementally alongside structure as they adapt at the same time to an ever changing environment (Lynch, 2015). Quinn (1980) terms this strategic management process "logical incrementalism". What is clear, however, is that structure and strategy are interlinked and organisations require "strategic fit", whereby strategy and structures are connected in some way (Lynch, 2015). This inseparability of structure and strategy can be seen in their very definitions, each of which can be seen to incorporate aspects of the other. Waterman et al. (1980) took this relationship further, however, by incorporating five additional interconnected elements that contribute to organisational effectiveness. They developed this idea over a number of years into the "McKinsey 7S Framework" illustrated in Figure 2.1 below:

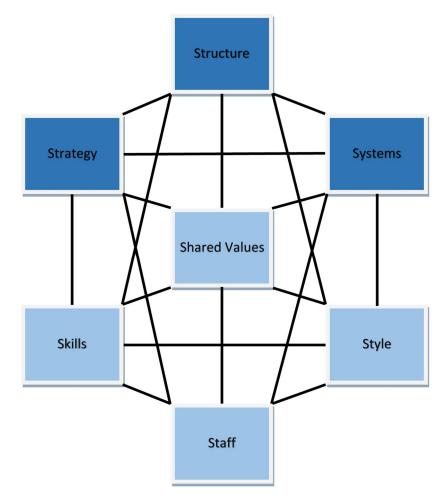


Figure 2.1: McKinsey 7S Framework (recreated from "In search of excellence" by T. Peters & R.H. Waterman Jr (1982). New York: Harper & Row)

In this framework, Waterman et al. (1980), place importance on the informal element of organisations, as well as the formal. Going back to the original definition of organisations, they are social entities and therefore made up of people who can interpret situations differently and may not adhere to formal structure, procedures and strategies (Daft et al., 2017). While the 7Ss are often split up into formal and informal (or hard and soft) elements, with the formal ones being strategy, structure and systems (Jurevicius, 2013), the only truly formal element is strategy, as the creators of the framework argue that both structure and systems contain both formal and informal components. Despite the focus on formal organisational structures, Tolbert & Hall (2016) discuss informal structures, which are "the unofficial divisions, definitions, and relations that emerge over time in an organization" (p.20) and develop around formal structures, and often in spite of them, shaping people's behaviours and the organisation's activities just as much as formal structures. Cross and Parker (2004) term these 'social networks' and identifies how they bear no resemblance to official organisational structures, equating them to an invisible web of relationships that impact greatly on the organisation's performance. They argue that any changes to the formal structure of an organisation can have unintentional effects on these social networks, and hence the overall activities and efficiency of the organisation, therefore managers need to be aware of these informal structures in order to support them effectively. Similarly, systems consist of the formal procedures but also the informal routines used day to day to get things done (Waterman et al., 1980).

The other informal elements of organisations are: the staff; the skills required by the staff to fulfil the organisation's main activities; the style of leadership; and the shared values of the organisation, which together equates to the organisational culture (Peters & Waterman Jr., 1982; Waterman et al., 1980). Organisational culture "is the set of shared values and norms that...shapes and controls behaviour within organizations" (Jones, 2013, p. 31). It is seen to have a huge effect on the performance and effectiveness of organisations and a strong relationship has been established between organisational culture and change, with culture being notoriously resilient (Cameron & Quinn, 2011; Mullins, 2016). As stated by Daft et al. (2017), "it is only when organizations try to

implement new strategies or programmes that go against basic cultural norms and values that they come face to face with the power of culture" (p.375).

Therefore, instigating organisational change can be extremely challenging. As J. Hayes (2014) states, even though ideally organisations would be in a process of continuous, incremental change, this rarely occurs, instead organisations go through periods of stability where limited change occurs, followed by period of radical transformation, termed the 'punctuated equilibrium' model. This is attributed to the inertia created by, what Gersick (1991) terms, 'deep structures' that are mutually reinforcing and resistant to change and in order for them to be dismantled they require revolutionary change to occur to all of them, causing periods of disorganisation while new structures are developed to replace them. Tushman and Romanelli (1985) identified core values and beliefs (or culture), strategy, power distributions, structure and control systems as the five key activities of organisations, which J. Hayes (2014) views as representing an organisation's 'deep structures'. Significantly, these align with some of the elements of the McKinsey 7S framework, therefore it is not surprising that J. Hayes (2014) recognises it as useful, holistic model for identifying the need for organisational change. Waterman at al. (1980) argue with their 7S framework, that in order to introduce effective organisational change that will endure, managers cannot focus on just one organisational element, such as structure, but holistically consider all 7 fundamental elements as a whole.

Despite the challenges it brings, the need for organisations to change is inevitable if they are going to survive. As well as pressures to change that originate from within the organisation itself, the need to change can be triggered by developments, opportunities and/or threats in the external environment, including political, economic, sociocultural and technological factors (Hayes, J., 2014). Furthermore, since organisations are such a significant and pervasive element of society, they are inextricably connected, with organisations needing to adapt to societal changes, including changes

to societal values, as well as organisational change influencing societal change in return (Tolbert & Hall, 2016). This is in line with "open systems theory", which as J. Hayes (2014) proposes:

"...provides a framework for thinking about organizations (and parts of organizations) as a system of interrelated components that are embedded in, and strongly influenced, by a larger system. The key to any system's prosperity and long-term survival is the quality of the fit (state of alignment) between the internal components of that system...and between this system and the wider system of which it is a part, for example the alignment between the organization's strategy and the opportunities and threats presented by the external environment." (p.4)

2.2.3 Academic libraries and the McKinsey 7S framework

Corrall (2000) identified that the McKinsey 7S Framework could be applied to academic libraries when considering implementing strategic organisational change, although it had its limitations, particularly due to its lack of consideration for the customer/user base. Therefore, Corrall adapted the Framework to include this element, along with other functions and factors influencing the overall performance of libraries. However, relating the Framework to academic libraries is further complicated by the fact that an academic library is only one element of a much larger organisation. In an attempt to overcome this challenge, A.M. Cox et al. (2019) further adapted the McKinsey 7S Framework to specifically the academic library context, so that it includes this institutional context, as well as other external factors. This adapted model is presented in Figure 2.2.

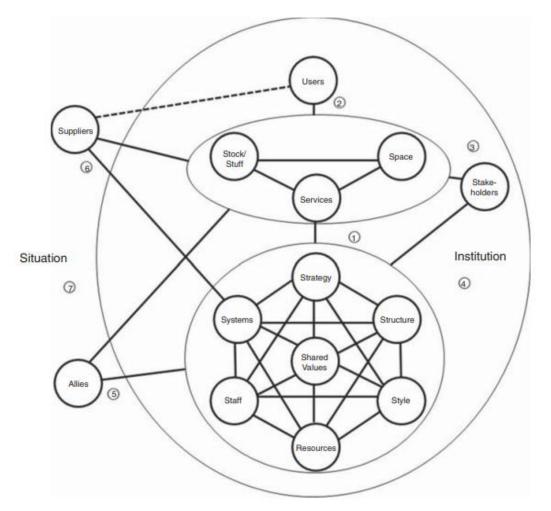


Figure 2.2: The academic library 7S model (from "Extending McKinsey's 7S model to understand strategic alignment in academic libraries" by A.M. Cox et al. (2019). Library Management. <u>https://doi.org/10.1108/LM-06-2018-0052</u>)

Significantly, and in line with the 'open systems theory' discussed above, A.M. Cox at al. (2019) have placed their adapted 7S model within, what they term to be, the 'Situation', which refers to the political and economic context universities are operating in. Therefore, accordingly, in order to understand fully the changes occurring to academic libraries and their structures, to begin with the higher education environment in which they are operating needs to be examined.

2.3 Environmental factors impacting on academic libraries

2.3.1 Higher Education Context

Since the late 1970s higher education in the UK has undergone transformative and rapid change. There has been an explosion of student numbers and a reshaping of the composition of the student population. In 1970/71 236,000 students were studying at universities and 204,000 at polytechnics in the UK (Times Higher Education, 2013), while Universities UK (2017) reported that in 2015-16 2.28 million students were studying at universities in the UK. The composition of the student body has also changed from the 1970s; women have now become the majority, there has been huge increases in part-time, mature and postgraduate students, as well as students from ethnic minorities and international students, yet, while numbers of working class students have increased, they are still significantly underrepresented (Brown, R. & Carasso, 2013). In order to accommodate this growth in student numbers, there has been a huge increase in the number of universities, with Brown and Carasso (2013) identifying a rise from 48 universities in 1979/80 to 115 in 2011/12, and Universities UK (2017) reporting that in 2015/16 there were 162 higher education institutions in the UK receiving public funding. Foskett (2011) states how the university system in the UK "may be characterised as changing from a small collegium of medium-sized, research- and education-focused organisations to a knowledge-based service industry of medium and large enterprises with diverse missions, profiles and character" (p. 25).

This transformation appears to be the explicit objective of successive governments who have recognised the economic importance of higher education in an increasingly globalised, neoliberal environment where knowledge has become a commodity (Brown, R. & Carasso, 2013;

Foskett, 2011; Olssen & Peters, 2005). The aim has, therefore, been to develop an efficient and expanding higher education sector governed by market mechanisms, which acknowledges the private as well as the public benefits of higher education, in order to remain globally competitive (Brown, R. & Carasso, 2013; Foskett, 2011; Olssen & Peters, 2005). Brown and Carasso (2013) argue that this gradual shift toward marketisation can be seen in many public services, and go on to detail the development of market principles in the higher education sector in England from 1979 up to 2012 through a series of government policies, initiative and reforms. Due to globalisation and economic challenges, the government began to adopt an interventionist approach to higher education in the late 1970s in an attempt to grow participation in higher education and "produce larger numbers of better educated graduates to ensure the UK economy would be highly competitive in global markets" (Foskett, 2011, p. 29). Brown and Carasso (2013) identify this as beginning in 1979 with the announcement by Thatcher's government that international students would no longer receive a subsidy to study in the UK, and then continued with the separation of teaching and research funding and the introduction of selectivity in research funding through the Research Assessment Exercise (RAE) in the 1980s.

The gradual move towards marketisation continued through the 1990s and 2000s with the main steps being the *Further and Higher Education Act* (1992) that allowed the polytechnics, which had previously been funded and administered separately, to become universities thereby increasing competition in the sector, and the *Higher Education Act* (2004) which brought in 'top-up' fees of £3,000 in 2006. Following these, the White Paper *Higher Education: Students at the Heart of the System* (Department for Business Innovation and Skills, 2011) contained proposals which took effect in 2012, and included the further removal of barriers for entry into the higher education sector, particularly for private and smaller institutions, by changing the rules around degree-awarding powers. Tuition fees were also increased to a maximum of £9,000 so that block grants were further reduced and the cost of university courses was almost completely covered by the student. This apparent trend of marketisation continued with the *Higher Education and Research Act* (2017),

which introduced the Teaching Excellence Framework (TEF) to assess the quality of undergraduate courses in order to administer funding and grants and determining the level of tuition fees a university can charge. In addition, the act further encouraged entry of new providers in higher education by removing some restrictions on the use of the university title.

All of these developments were ostensibly aiming to create more competition in the sector by creating more choice for students and, therefore, building an environment in which universities have increased autonomy to determine their own mission and priorities and compete with other institutions in relation to both quality and price of courses (Brown, R. & Carasso, 2013). Although, it should be noted that what has in fact developed is a 'quasi-market' where the state maintains control and administration of higher education by guiding how the market operates and still regulates some aspects, such as entry into the sector, control of tuition fees and subsidising of some teaching and research (Brown, R., 2015; Foskett, 2011).

Strongly linked with the marketisation of higher education is the incorporation of 'new public management' approaches through the adoption of managerial discourse and an increasing focus on productivity, profitability, accountability and measurable outcomes in higher education (Olssen & Peters, 2005; Sauntson & Marsh, 2011). This can be seen through the use of techniques such as strategic planning, mission statements, branding, performance indicators and audits, that originate from the private, for-profit sector (Olssen & Peters, 2005; Sauntson & Marsh, 2011). Related to this is the growth in assessment and providing comparative data and information to prospective students, which can be seen through the use of the RAE, which has now been replaced by the Research Excellence Framework (REF), the TEF, the National Student Survey (NSS) and the various university league tables (Brown, R. & Carasso, 2013; Hayes, D., 2017a).

There are many detractors of the marketisation of higher education for ideological reasons. Criticisms and concerns often focus on both this move towards a managerial ethos and the reduction of higher education to a product, which is argued undermines, and even threatens, traditional

academic values, academic freedom and fundamentally alters what a university and the education it provides 'should' be (Docherty, 2015; Kennedy, 2017; Taberner, 2018). As stated by Barnett (2011), "the marketised university polarises opinion" and both sides of the argument can be seen in ideological terms since "the positive *and* the holistic positions are taken up first and the evidence is found to support the position taken" (p.29). The very term 'marketisation' is in itself used ideologically, often as a critique (Furedi, 2011). There exists a significant critical school of writers on this topic, with some adopting, the term 'McDonaldization', along with the associated term 'McUniversity', when negatively assessing the market-driven changes occurring (Hayes, D., 2017b; Hayes, D. & Wynyard, 2002; Nadolny & Ryan, 2015; Ritzer, 2018). "McDonaldization' was first used in an 1983 article by George Ritzer who identifies efficiency, calculability, predictability and control as the four main features of this phenomenon, and is viewed as being at least partially influenced by the characteristics of Weber's principles of bureaucracy and rationalisation (Ritzer, 2018). Yet, Ritzer (2018) states that "McDonaldization is a "double-edged" phenomenon" (p.8), and uses the terminology of Giddens (1984) to describe it as both "enabling" and "constraining".

Despite criticisms, as stated by Brown and Carasso (2013), market-driven government policies and reforms have helped to create a higher education sector in the UK that is "much more efficient, service-oriented and entrepreneurial than it was in 1979" (p.130). They recognise how it has succeeded in opening up higher education as a viable option to more members of society and made huge progress in removing the elitist culture of universities. In addition, the UK HE sector has an excellent international reputation, it was ranked 6th by Universitas 21 in their 2022 ranking of national higher education systems (Williams & Leahy, 2020) and in various institutional rankings the UK has multiple universities in the top positions (Brown, R. & Carasso, 2013; QS Top Universities, 2022; Times Higher Education, 2022). It is acknowledged that the 'march of the market' is unlikely to be overturned, particularly since marketisation is a phenomenon affecting universities worldwide to varying extents, and therefore a more balanced view is required whereby the benefits of marketisation are gained while minimising the negative elements (Barnett, 2011; Brown, R., 2011).

There are also certain aspects of both sides of the debate that need to be considered when thinking about the potential impact of marketisation on higher education and, subsequently, academic libraries. To begin with, one main criticism is that, significantly, marketisation might even be failing to achieve one of its key aims. The White Paper *Higher Education: Students at the Heart of the System* (Department for Business Innovation and Skills, 2011) explains how one of the main aims of the market-driven policies is to create diversity within the higher education sector in order to create more competition and choice. Whilst Foskett (2011) demonstrates how some view this diversity as existing due to the large number of higher education providers in the sector, others argue that market-driven polices are paradoxically causing convergent behaviour amongst universities, as they are drawn to imitating the more successful universities, an example of DiMaggio and Powell's (1983) isomorphism at work (Codling & Meek, 2006; Meek, 2000).

Brown and Carasso (2013) term this "competition by emulation" (p.131), with universities striving to gain research-awarding powers in order to obtain the prestige this brings, as well as most universities choosing to charge the maximum tuition fee, rather than 'undercutting' competitors as governments had expected, in order to give the impression of quality and status to prospective students. They predict a higher education system that will become more 'vertically' diverse around status and reputation, rather than being 'horizontally' diverse around societal needs. This is illustrated in Sauntson and Marsh's (2011) investigation into university mission statements in the UK, which found that, rather than promoting the distinctiveness of a particular university, mission statements tended towards uniformity, particularly amongst universities that are research-intensive and those that are teaching-led. This, therefore, has significance for academic libraries who will be attempting to align themselves with the overall missions and strategy of their institutions, which depending on the position taken could be seen as diverging or converging in behaviour.

Secondly, the separation of public funding for research and teaching, along with the introduction of research selectivity, originally through the RAE and now the REF, has been criticised.

Some have argued that it has resulted in research and teaching becoming compartmentalised as separate pursuits in higher education, despite arguments for the importance of the interconnectivity of these activities, particularly in relation to the role of research in shaping teaching (Brown, R. & Carasso, 2013; Elton, 2011; McNay, 1997, 2003). However, there are some who have begun to question the need for research-active academics teaching university courses (Grove, 2018). Nevertheless, this growing divide could be argued to have influenced the decision taken by some academic libraries to mirror the splitting of teaching and research support by using functional rather than subject based organisational structures. Research selectivity has also led to research often being regarded as a higher priority than teaching due to the prestige and rewards associated with it, and, therefore, there are reports of lecturers increasingly focusing on research, with more teaching being undertaken by part-time lecturers and postgraduates (Brown, R. & Carasso, 2013; Elton, 2011). Related to this, there has also been an increased focus in universities towards growing research support services, with a trend towards the centralisation such services (Cooper et al., 2022). Altogether, this could in turn influence the priority academic libraries place on their research support activities.

Yet, in what appears to be in direct contradiction to this perceived priority of research over teaching, the role of the student is central to the marketisation of higher education. This is perfectly encapsulated in the title of the White Paper *Higher Education: Students at the Heart of the System* (Department for Business Innovation and Skills, 2011). It is even explicitly recognised in this White paper that the proposals made, including the introduction of the TEF, are an attempt to stimulate "a renewed focus on high-quality teaching in universities so that it has the same prestige as research" (Department for Business Innovation and Skills, 2011, p. 2). Although, this would appear to contribute further to the dichotomy of teaching and research. Nevertheless, it has been argued, that in many ways the role of the student is becoming redefined as that of 'consumer', or even 'customer', since universities are having to increasingly focus on improving the student experience and ensure they are providing students with what they want in order to remain competitive

(Molesworth et al., 2011; Parkes et al., 2014). The influence of the student on higher education provision was argued to have even increased in 2012 with the rise in tuition fees to £9,000 (Bulpitt (ed.), 2012). This has also facilitated a shift in focus of pedagogy towards skills, rather than subject content, in order to increase the employability of students, which has also been influenced by graduate unemployment figures, a competitive labour market and the identification of a skills gaps and shortages (Confederation of British Industries (CBI), 2017; Furedi, 2011; Kornelakis & Petrakaki, 2020).

However, there are fears that the relationship between academics and students is being severely damaged by recasting it as one of service provider and customer (Furedi, 2011). The government appears to be of the view that "Students are best placed to make the judgement about what they want to get from participating in higher education" (Independent Review of Higher Education Funding & Student Finance, 2010, p. 25). However, others argue that students will not always make choices based on their best interests or those of society, and will often make choices based on what is fun and easy rather than challenging and personally transformative (Furedi, 2011; Nixon et al., 2011). This view is reflected by Blau and Scott (1962), who believe that in a service organisation the client will not always know what is in their best interest and it is the professional's role to determine what this might be. Yet, in contrast, Barnett (2011), while acknowledging the risks to the pedagogical relationship, does not view this as inevitable if it is managed correctly, believing that "the presence of a market may lead to a student taking a heightened interest in his or her learning" (p.46). In addition, as stated by Maringe (2011), "placing the consumer at the heart of decision making in HE helps to democratise the HE experience, increase accountability and contribute to enhanced quality of the HE experience" (p.151).

This redefinition of the roles of the student as consumer and university as service provider is inevitably having an impact on professionals working within universities, including academics and librarians, as they adapt to focus on student needs and the student experience. Universities are

having to ensure they are providing adequate information to the public, which includes an increasing focus on both branding and marketing, with professional marketing staff increasingly being employed (Brown, R. & Carasso, 2013; Foskett, 2011; Mighall, 2009). The negative impacts of marketisation on academic staff have been reported, which include academics being pressured to be more lenient when marking student work, increased workloads, especially due to increased student expectations on staff time and the increasing amount of time spent reporting metrics, and fears of de-professionalisation (Taberner, 2018).

In comparison, for professional, non-academic staff, there has been a blurring of boundaries and increased partnership working. This has been amongst themselves in order to create a more cohesive and efficient approach to improving the student experience, but also with academic staff, since fee paying students increasingly prefer and expect support to come from academics (Parkes et al., 2014; Whitchurch, 2006, 2008). Whitchurch (2008) describes how this has influenced the development of the 'third space' in universities, which is not easily depicted in formal documents such as organisational charts, but exists between the academic and professional domains and is comprised of individuals working outside of their job descriptions on specific projects. This clearly has implications for organisational structures and professional identity within universities (Whitchurch, 2006, 2008).

Intertwined with the marketisation of higher education is the impact of technological change. Munro (2018) links digital teaching and learning strategies to the marketisation of UK higher education. They discuss how the use of technology in teaching is often presented as not only a way of personalising learning and ensuring teaching is focused on the individual needs and preferences of students in order to remain competitive in the market, but also as a means of improving efficiency, providing cost savings and supporting increasing student numbers (Munro, 2018). Nevertheless, universities, their staff and students are required to adapt to an ever change technological landscape, which is transforming not just teaching and learning, but research as well.

The annual *Horizon Report* illustrates how technological developments are shaping higher education. In the last four reports, some of the most significant technological trends listed have included hybrid, blended and online learning, learning analytics, big data, artificial intelligence, open educational resources, adaptive learning technologies and mobile learning (Alexander et al., 2019; Brown, M. et al., 2020; Pelletier et al., 2021, 2022). However, these reports also acknowledge how technological trends that are changing higher education are intertwined with other social, economic, environmental and political trends, which have all been further impacted by the COVID-19 pandemic that "has reshaped our lives around more online and remote modes for living, working, playing, and learning" (Pelletier et al., 2022, p. 7). Although, it is recognised that the pandemic may only have accelerated many of the trends that were actually emerging in the years before, such as trends towards skills-based learning and learning analytics (Pelletier et al., 2022), both of which can be seen to have their roots in the marketisation policies previously discussed.

Significantly, before the pandemic, the 2017 and 2018 editions of the *Horizon Report* (Adams Becker et al., 2017; Adams Becker et al., 2018) identified how technological trends in higher education are also impacting on the management, roles and physical design of universities, in order to put students at the centre and promote collaboration within and outside the organisation. This has resulted, despite resistance, in universities beginning to acknowledge traditional functional structures may need to be replaced with more flexible ones to enable the flow of ideas in an evolving technological and global landscape (Adams Becker et al., 2017; Adams Becker et al., 2018).

Paradoxically, while some commentators such as Quinn (2000) have focused on what they perceive to be the McDonaldization of higher education causing further bureaucratisation, others, such as Nicholson (2015), have emphasised how the associated 'new public management' approaches promote flexibility of organisational structures in order to support innovation and entrepreneurialism. It, therefore, appears that while marketisation and McDonaldization may have their roots in Weber's model of bureaucracy and rationalisation, 'new public management' is

working against this and promoting the blurring of professional roles in higher education, and along with the impact of technological change, appears to require more flexible and less bureaucratic structures. This raises questions over whether bureaucratic or more flexible structures will come to dominate or if a middle ground will develop, demonstrated by the trend towards the "hybridization" of bureaucracy, as identified by Reed (2005) and previously discussed in this literature review.

2.3.2 The impact of the Information Society and the digital age on libraries

Some have argued that technological developments have had a huge impact on society to the extent that we are now in an Information Society. However, Webster (2014) argues against technological developments determining the changes occurring in society and even urges against the use of the term 'Information Society', since it suggests a new type of society distinct from the past, when Webster in fact identifies continuities with the past. Nevertheless, while questioning whether information has fundamentally changed society, it is identified that that there has been an indisputable and substantial growth in the quantity of information available, which has been facilitated by developments in technology, and information now plays a "central and strategic role" in society (Webster, 2014, p. 340). This has transformed the business of all libraries. The concept of a library was established in a time of information is now ubiquitous and there are simpler and more convenient ways to access it than through a traditional library, people no longer predominantly use or require libraries for this traditional function (Connaway, 2013).

Dempsey (2008, 2012a, 2015, 2017) has long discussed how the networked environment has transformed the behaviours and expectations of library users, he predominantly discusses this in terms of academic libraries, but it applies to all types of library. As Dempsey (2008) states, discovery of information often no longer occurs in libraries as they are now in competition with search

engines, social networking sites, RSS feed and other, easily accessible and more convenient, online information services. In many ways, libraries could now be viewed as expendable intermediaries, which are increasingly being removed from the discovery and research processes (Housewright, 2009). The digital revolution has, therefore, led to declining usage of library resources and services, particularly a downturn in circulation figures, while, in addition, libraries have also seen a decrease in library budgets due to the economic crisis of 2008-2009 (Brundy, 2015; Department for Culture, Media & Sport, 2016; Nicholas et al., 2010; Shapiro, 2017).

It is perhaps not surprising that as libraries are increasingly competing with a range of online information services, and have faced declining budgets, it is not difficult to find evidence of "an apocalyptic vision of the end of libraries" (Law, 2014, p. 200). Public libraries could easily be seen as the most dramatically hit with huge concerns frequently expressed over public library closures and volunteer run libraries, with figures reported of 324 public library closures in the UK between 2011 and 2015 (ARUP, 2015; BBC News, 2016). However, corporate libraries, operating in a profit-driven environment, were some of the first to feel the impact of the digital age, with some being seen as ineffective by their organisations, due to competition from growing technology, which led to closures, cutbacks and outsourcing as early as the 1990s (Helfer, 1998; Housewright, 2009).

However, despite the evidence of closures and threats to libraries, fears over the death of the library having been around since the 1990s (Davis, 2008) and many libraries do still exist. In large part, this is because some have adapted to the changing environment. For example, many public libraries have considered the developing needs of their users and become community hubs that concentrate on connecting individuals and providing access to innovative digital technology (Arts Council England, 2013; ARUP, 2015). In addition, the corporate libraries that have survived have adapted to serve the needs of their parent organisations by focusing on and adopting services and roles that add value, such as providing collaborative workspaces, and perhaps, more importantly, communicated this value to the rest of their organisation (ARUP, 2015; Housewright, 2009). As

stated by Mackenzie and Martin (2014), in order to survive and thrive in the digital age "libraries need to structure their services and identify their priorities around their communities" (p. xvi).

Academic libraries have not been exempt from threats, with an early and high-profile example coming in January 2005 when the University of Wales Bangor proposed cutting eight of their twelve librarians in order to save £300,000, stating they did not offer 'value for money' in the digital age (Jones-Evans, 2005). However, it has been argued that academic libraries have not been affected to the same extent as other libraries because they have always held a unique and, arguably, valued position, often being referred to as the heart of the university (Gyure, 2008; Housewright, 2009). In support of this view of the historically important position held by academic libraries in their institutions, Law (2009) uses the following quote from the UK's University Grants Committee Annual Report for 1921, which states that:

"The character and efficiency of a university may be gauged by its treatment of its central organ - the library. We regard the fullest provision for library maintenance as the primary and most vital need in the equipment of a university." (University Grants Committee 1921, as cited in Law, 2009, p.54)

It was argued by Housewright (2009), that this privileged position can be seen to have protected the academic library from the more disruptive changes which have threatened the existence of many public and corporate libraries. However, Housewright (2009) went on to say how it has also prevented them from evolving with the needs of their institutions as they have taken it for granted that this unquestioned importance to their institution would continue, and they are now in a more precarious position where they need to adapt in order to remain relevant in a rapidly changing environment. As stated by J. Cox (2018), academic libraries are no longer the heart of the university and need to reposition themselves within their institutions.

Nevertheless, it is clear from the large number of reports from around the world regarding the trends affecting them that the academic librarianship community are aware of the challenges facing

them and the need to adapt in the digital age. Although, the extent to which they have actually transformed will be discussed later. From the United Kingdom, there has been SCONUL's 'Mapping the future of academic libraries' (Pinfield et al., 2017) and their 'Future of the academic library: scenarios beyond 2020' (Curtis et al., 2011), while from the United States there are the Ithaka S+R library surveys (Long & Schonfeld, 2014; Wolff, 2017), the biannual ACRL 'Top trends' reports (ACRL, 2014, 2016) and the MIT report on the future of libraries (MIT, 2016) to name a few of the most notable. There was also the ARUP report (ARUP, 2015), which outlined the findings of collaborative workshops held in London, Melbourne, San Francisco and Sydney on the key trends shaping the future of public, corporate and academic libraries, and, furthermore, in Australia there have been other reports on the future of individual university libraries (The University of Adelaide, 2015; The University of Tasmania, 2015). In addition, there have also been many books written regarding the future academic library, such as Reimagining the academic library (Lewis, 2016), Reflecting on the future of academic and public libraries (Hernon et al., 2013) and Envisioning future academic library services: initiatives, ideas and challenges (McKnight, 2010), as well as numerous journal articles. While the academic librarianship community clearly acknowledge that academic libraries currently exist in a period of great transformation, the number of reports concerning theories and advice regarding what the future of academic libraries might be illustrates an uncertainty as to the result of this transformation.

This uncertainty around the future of academic libraries has been around for many years now. Law (2009) stated that there had been an abundance of literature published on the subject, the amount of which was actually making it impossible for the professional community to be able to keep up-to-date with conclusions and utilise recommendations efficiently. Yes, despite the uncertainty and the potential risks and challenges facing academic libraries, it is clear from the many reports on the subject that, as with other types of library, it is believed there are also huge opportunities for academic libraries. Pinfield et al. (2017) identified a general feeling of optimism amongst the library community regarding the future of academic libraries and many of the reports

mentioned above reflect this positive stance. Nevertheless, it is believed in order to survive, academic libraries have to be willing to change their key missions and priorities, and potentially forgo the traditional concepts on which the library as an institution is built (ARUP, 2015; Jantz, 2012b; Law, 2014).

2.4 Repositioning the academic library

2.4.1 The transformation of academic libraries

Traditionally, the library was organised around its collection and it was the collection that was central to the identity of libraries (Dempsey et al., 2014; Levine-Clark, 2014). Dempsey (2012a) describes this traditional library as being 'outside-in', where the role of the library is to manage purchased or licensed materials and resources in order to make them accessible locally to their home institution. Dempsey then goes on to argue how, due to the growth of the networked environment, the emphasis is shifting toward libraries becoming significantly more 'inside-out', where the library curates the unique resources created by their institution in order to make them available externally, as well as internally. As Schonfeld (2018) describes, academic libraries are transforming, with the variety of ways this is occurring illustrated in Figure 2.3:

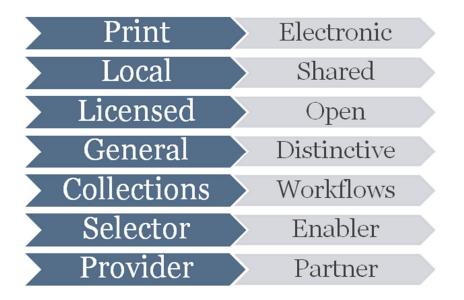


Figure 2.3: "Essential transformations" occurring in academic libraries (from "Essential transformations", by R.C. Schonfeld (2018). Retrieved January 17, 2018 from http://www.sr.ithaka.org/blog/essential-transformations/)

Although, like Dempsey (2012a) who believes the 'outside-in' element of the library is still relevant despite the move to the 'inside-out' library, Schonfeld (2018) is not implying a complete transition for the library from the traditional roles on the left to the new roles on the right in Figure 2.3. Additionally, in the research carried out Pinfield et al. (2017) for SCONUL, it was found that the majority of library staff see the continuation of the collection as a fundamental part of the academic library in the future. Therefore, the role of the academic library is not only changing, but also becoming a lot more complex by still having to deliver the traditional role of the library, while at the same time expanding beyond this concept.

However, in terms of academic library collections, Figure 2.3 is illustrating how academic libraries are increasingly enabling access to electronic resources, rather than just selecting print resources. Levine-Clark (2014) describes this as a "shift in emphasis from ownership to access" (p. 429), and link this to the growth in open access resources and demand-driven acquisition process, which is shifting the role of the library from that of selecting resources to supporting discovery and access. Significantly, it is acknowledged that there has been a decline in the usage, and consequently the importance, of general academic library print collections (Anderson, 2013). This shift away from print collections has been accelerated by the COVID-19 pandemic, which made print collections inaccessible and put pressure on academic libraries to increase access to electronic resources, and it has been acknowledged that investment in print resources is only likely to continue to decrease (Frederick & Wolff-Eisenberg, 2020; Green, 2022). Therefore, in line with Demspey's concept of the inside-out library, there has been a refocusing on the distinctive resources that are unique to the institution, such as research outputs, including articles and research data, as well as special collections (Anderson, 2013; Levine-Clark, 2014). Significantly, in contrast to other physical library resources, Green (2022) reported that the majority of participants in their study believed investment in special collection would remain constant, or even increase, following the COVID-19 pandemic. Although, Schonfeld (2018) acknowledged that for these unique resources "Complexities abound for discovery, access, processing and preservation".

Despite the continued, albeit transformed, role academic libraries have in collections, there is "the broad recognition that in a digital and increasingly open environment, this work may decline in amount if not in value" (Malpas et al., 2018). Therefore, it is widely acknowledged that academic libraries are shifting their emphasis away from collections towards being more user-focused, which involves engaging more with users and becoming embedded within the learning, teaching and research workflows of the institution (Connaway, 2015; Dempsey, 2012a, 2015; Evans & Schonfeld, 2020; Pinfield et al., 2017). This concept is sometimes described as 'the library in the life of the user', instead of the more traditional model of 'the user in the life of the library', and can be seen to have been influenced by the increasing focus on the student experience and other factors relating to the marketisation of higher education (Connaway, 2015; Dempsey, 2017). However, as Dempsey (2007) discusses, workflows are created by the individual from the range of resources available on the networked environment, meaning that workflows are not standard for all learners, researchers and academics, but often unique to the individual. In addition, there is growing preference for selfreliance amongst academics, particularly regarding information discovery and managing research

outputs (Wolff et al., 2016). Therefore, becoming embedded in learning, teaching and research workflows is a complex and challenging endeavour for librarians.

It is for this reason that there is the growing trend towards positioning the library as a partner in teaching, learning and research, in addition to that of providers of services to its users, which is again illustrated in Figure 2.3. Some commentators even argue becoming a partner to academics and researchers should be the main future role of academic libraries (Delaney & Bates, 2015; Meulemans & Carr, 2013). However, Pinfield et al. (2017) argue for a more balanced approach with academic libraries adopting the roles of service provider and partner, but also leader. Therefore, not only is the future role of libraries clearly more complex in the digital age, but again this illustrates how there is uncertainty within the library community itself regarding how the academic library should be repositioned.

2.4.2 Strategic alignment

In order to navigated this transformation of academic libraries in the context of the complex, uncertain and rapidly changing environment they are facing, it is acknowledged that academic libraries need to adopt a more strategic approach to service development (Cooper et al., 2022; Cox, A. M. et al., 2019; Cox, J., 2018; McNicol, 2005). Since users are no longer dependent on libraries to access information, collection size and quality are no longer a sufficient means of measuring the success of an academic library and demonstrating its value to a university (Evans & Schonfeld, 2020; Malpas et al., 2018). Therefore, to ensure libraries remain relevant, it is argued that they need to clearly align with their institution's aims and priorities in order to raise the library's profile within the institution (Cooper et al., 2022; Cox, J., 2018; Evans & Schonfeld, 2020; Malpas et al., 2018).

Although, as discussed by McNicol (2005) formal library strategic plans are likely to be an institutional requirement, which is illustrative of the increase in reporting procedures, target setting

and formalised planning processes in higher education. In many ways academic libraries are being run more like businesses, much like the overall universities they serve (Cox, J., 2018; Weaver, 2013). Therefore, this trend towards strategic alignment has clearly at least partially been influenced by the previously mentioned marketization policies affecting the higher education sector. Commentators discuss, often negatively, the increasing trend of academic libraries absorbing neoliberal and 'new public management' approaches into their practices, evidenced by the increasing use of corporate language, a focus on service quality and the frequent use of the word 'customer' to describe library users (Nicholson, 2015; Quinn, B., 2000; Quinn, K. & Bates, 2017). There is also the growing importance of effectively branding and marketing the library in a way that communicates the unique value it brings (Garoufallou et al., 2013; Potter & Kendrick, 2012; Wynne et al., 2016)

In relation to this, there is the increasing emphasis being placed on assessing and measuring the impact academic libraries have on university strategic priorities, which is influencing the needs for academic libraries to align with these priorities. There is huge pressure to demonstrate and communicate library value to stakeholders, particularly around contribution to student success, research productivity and global reputation (Cox, J., 2018; Lakos & Phipps, 2004; Matthews, 2013; McNicol, 2005; Mikitish et al., 2018; Oakleaf, 2010; Weaver, 2013). This is an example of how the trend towards assessment and accountability, termed the "audit culture" by Quinn and Bates (2017), in the higher education sector is impacting on academic libraries. Although, it has been identified that given the complexity of universities and the environment in which they operate, alignment to institutional priorities and missions, along with demonstrating the value of the library, is not a straightforward process, particularly as it is an iterative process as university strategies continuously evolve (Cooper et al., 2022; Cox, A. M. et al., 2019). It is further complicated for academic libraries by the fact that while there will be commonalities between the strategic priorities of different universities, 'there are important institutional differences in emphasis, prioritisation, and approach' (Cooper et al., 2022, p. 4).

2.4.3 Trends in academic services roles and responsibilities

Overall, in order to move away from the traditional concept of the library, connect with user workflows and strategically align the library with the mission of the university, academic libraries have taken on a range of new multifaceted roles and responsibilities. Therefore, the collection is now one of many services academic libraries offer (Attis & Koproske, 2013; Pinfield et al., 2017). In fact, as stated in the OCLC report *University Futures, Library Futures*, since "the library can no longer define itself in terms of collection size, services are now the new differentiating factor" (p. 9).

In line with the main priorities of most universities, the key trends in the activities of academic libraries can be seen to have developed around engagement, teaching and learning support and research support, and are outlined below. In many ways, the impact of the marketisation of higher education and the corporate managerial trends discussed above can be seen interspersed throughout. In order to support these growing trends, decisions need to be made regarding how to incorporate them into the organisational structure of academic libraries, and, significantly, these overall trends correspond to the functional teams established during the restructure at the UML.

2.4.3.1 Engagement

Dempsey (2013) has linked the move away from the collection-centric focus of the library and the strategic repositioning of the library with a "shift to engagement", which supports libraries in anticipating changes in the environment and providing innovative new services in line with users' evolving needs and workflows. This can be seen in the increasing emphasis which is placed on the liaison activities of librarians (Church-Duran, 2017; Kenney, 2014; Pinfield, 2001; Rodwell & Fairbairn, 2008), and has led to the development of concepts such as 'blended librarianship' (Bell & Shank, 2004; Shank & Bell, 2011), 'embedded librarianship' (Shumaker & Talley, 2009) and 'librarian as consultant' (Donham & Green, 2004).

Linked with the increased focus on engagement and developing the role of the academic library as a partner, rather than just a service provider, is the move towards collaborative working with both academics and other professional support services, with the aim being to advance the goals of the university (Cox, J., 2018; Giesecke, 2012; Pinfield et al., 2017). This is related to the overall development of what Whitchurch's (2008) terms the "third space" in universities. Librarians are now expected to have an outward looking focus, to build strong relationships and collaborate with staff and students in order to ensure that they become "an equal partner in the research, teaching and learning functions" (Rodwell & Fairbairn, 2008)

2.4.3.2 Teaching and learning support

Due to the increased focus on the student experience brought about by a growth in competition in the higher education sector, academic libraries are having to position themselves to visibly contribute to student success (Cox, J., 2018). For decades, teaching and learning support has been core aspect of academic library services, with academic librarians having responsibility for information literacy education (Brewerton, 2011; Corrall & Jolly, 2019; Pinfield, 2001). However, this has now not only extended to often leading on digital literacy within their institutions (Adams Becker et al., 2017), but as stated by John Cox (2018), "librarians are also playing important roles in the development of teaching and learning across the institution". There has also been a trend towards redesigning library buildings and spaces in line with pedagogical shifts to support new student-centred approaches to learning, such as trends towards collaborative learning, active learning and makerspaces (Adams Becker et al., 2017).

As well as trends concerning the more traditional role academic libraries have played in supporting teaching and learning, they are strategically positioning themselves in order to be seen to be contributing to student success, and are, therefore, attempting to involve themselves throughout every stage of the student experience of university (Cox, J., 2018; Weaver, 2013). This includes

supporting the development of the institution's reputation in order to attract students and being involved in initiatives regarding the retention, progress and employability of students (Weaver, 2013). In addition, Melling and Weaver (2017) argue that there is a potential future role for libraries in supporting learning analytics and predicting student outcomes, in particular for the TEF, by integrating data from library systems with other university collected data. This has all led to an increase in libraries collaborating with other departments, such as student services, counselling and welfare, to create a holistic approach to the student experience (Appleton & Abernethy, 2013; Weaver, 2013).

2.4.3.3 Research support

The move from being collection-centric, towards engagement and the development of the 'inside-out' library has led to significant new trends in research and digital scholarship services in academic libraries, as they adapt to both support the creation and curation of the scholarly outputs of their institution (Clay, 2016; Cox, J., 2018). This has led to clear trends of university libraries moving into new areas such as research data management (Pinfield et al., 2014), bibliometrics (Corrall et al., 2013), scholarly communication (Marcum et al., 2015), open access (Pinfield, 2015), management of institutional repositories (Walters, 2007) and research impact measurements (Drummond & Wartho, 2016).

It is in the area of research support that there are some key examples of academic libraries becoming active partners in specific projects, especially relating to digital scholarship, which includes the development of digital scholarship centres (Cox, J., 2016; Mackenzie & Martin, 2016a), and digital humanities (Currier et al., 2017). Although, it can be argued that such projects are on an ad hoc basis and digital scholarship is a potential area for librarians to continue to expand into in the future (Martin, L., 2016). Although, there are also clear examples of librarians taking their role of partner further in supporting research by embracing leadership and advocacy roles within their

institutions, particularly around the continually developing areas of research data management (Pinfield et al., 2014), open access (Fruin & Sutton, 2016) and scholarly communications (Malenfant, 2010).

2.4.4 Innovation in academic libraries

Like all organisations, it is accepted that in order for academic libraries to survive and thrive in the complex environment they are operating in, then it is essential for them to innovate (Baker, 2016; Brundy, 2015; Deiss, 2004; Rowley, 2011). Many of the service developments discussed in the previous section, particularly new and emerging teaching, learning and research support services, have been described in the literature as innovations, specifically service innovations that have direct benefit to users (Corrall & Jolly, 2019; Corrall et al., 2013; Llewellyn, 2019; Rowley, 2011). Although, some of these could also be described as collaborative innovations, which Rowley (2011) argues are important to achieve more transformative innovations, since they involve working with other university departments.

These examples of innovation can be linked to the previously discussed positivity in the library literature regarding the future of academic libraries, however, it has been noted that there is often a disparity between the views of the professional community and the views of those operating outside of the library (Pinfield et al., 2017). The attitude of those outside of the library community regarding the future of academic libraries is often more mixed. Despite the dominance in the professional literature regarding the changing roles of the academic library, research has shown that users are not recognising these changes that are occurring and still associate the library, first and foremost, with books, and do not associate the library with the growing services they offer (Connaway, 2015; Connaway & Dickey, 2010; Delaney & Bates, 2015). This unchanged perception of the library is not confined to students though, and there are fears that misconceptions of the academic library are

creating a barrier to academic staff accepting the library as a partner in teaching, learning and research (Delaney & Bates, 2015; Doskatsch, 2003; Hrycaj & Russo, 2007; McGuinness, 2006).

Despite clear examples of academic libraries adapting to align more closely with their parent institutions, recent research has found that university leaders are often still unaware of the contribution of the library to institutional priorities, and predominantly view the library in terms of collections and space, rather than services (Connaway et al., 2017; Cox, J., 2018; Murray & Ireland, 2017). However, what is arguably more significant than this lack of awareness amongst stakeholders of the changes occurring to the concept and role of the academic library is the lack of discussion of and indifference towards academic libraries at high levels within their institutions, demonstrated by their exclusion from most university strategy plans and senior management agendas (Law, 2014; Shapiro, 2017). The percentage of their overall budget which universities allocate to the library has also reduced (RIN, 2010), indicating a decrease in the importance placed by university management on the library.

Therefore, it has been argued that, despite the examples of service innovations occurring, innovation in academic libraries need to go further and more risks need to be taken in order to change the perception of academic libraries and ensure they remain relevant (Deiss, 2004; Jantz, 2012b). Malpas et al. (2018) even recommends "undergoing a disruption" (p. 9) to academic library services in order for them to effectively align to the rapid changes occurring in universities. However, academic library leaders face many challenges when it comes to creating an innovative environment and culture, primarily due to the paradoxical situation they find themselves in, which has resulted in contradictory advice and information they have to navigate. As stated by Deiss (2004), mature organisations, such as academic libraries, find it difficult to innovate and take risks, compared to younger organisations because of a reliance on established practices and deeply embedded cultures which resist change. They are what Jantz (2016) terms "institutional nonprofits" in that they are organisations with "well established professional norms and traditions" (p. xv). In the same way it

has been discussed that universities attempting to change end up modelling themselves on the more successful organisations within the field, Jantz (2017) applied the "iron cage" metaphor and DiMaggio and Powell's (1983) theory of institutional isomorphism to academic libraries. Jantz argues that due to the well-established nature of libraries as organisations, the traditions and norms of the library profession, along with their inherent bureaucratic nature, has paradoxically created a culture that preserves the status quo and is a barrier to innovation. They argue that this has resulted in academic libraries that resemble each other in terms of structure, culture and output as they attempt to change. It was acknowledged by Quinn (2000) that most academic libraries offer the same core resources and services, which he attributes to the predictability that is associated with the McDonaldization of higher education.

In line with Contingency Theory (Donaldson, 2001), it has been argued that the academic libraries in the future will diverge, in terms of organisational structures and services, as they align to their individual universities that will have different missions and priorities (Dempsey & Malpas, 2018; Dillion, 2008; Lankes, 2014; Malpas et al., 2018; Schonfeld, 2016). However, as previously discussed in Section 2.3.1, it can be debated as to how far university missions and priorities differ. It could be argued that the traditions of the library profession could also be preventing this predicted divergence of academic libraries from occurring. This can be demonstrated by the fact that while there are calls for radical changes to the concept of the library, others, despite acknowledging the need for change, argue that the traditional, iconic library needs to remain and be built upon, rather than being swept away, particularly because of the perceived strength of the library brand (Gorman, 2003; Gwyer, 2015; Storey, 2007). This debate can also be identified in the research by Pinfield et al. (2017) who discovered fourteen paradoxes surrounding the discussion on the future of libraries. These paradoxes included "Despite the recognition of potential for change, images of the library of the future seemed rather similar to what exists now", "Libraries see themselves as forward looking but often fail to engage in truly innovative thinking and risk-taking" and "The need for change is widely recognised but so is the existence of resistance to change" (Pinfield et al., 2017, pp. 55–56).

This tension between innovation and maintaining the status quo, is linked to the debates surrounding how innovations should be introduced (Deiss, 2004), and links back to Gersick's (1991) 'deep structures' that resist change, which particularly includes the culture and norms of an organisations, and J. Hayes' (2014) use of the 'punctuated equilibrium' model of change. Advocates of incremental change are often focusing on developing and redesigning the traditional library, and are wary of the disruptive and risky nature of more radical innovations (Younger, 2010). Pritchard (2008), for example, is arguing against the need to "blow it up and start over" (p.222), instead recommending that the work of the library is reoriented and redefined in order to deconstruct the stereotypes associated with the library, while maintaining core concepts and models. In contrast, those who argue that the whole concept of the academic library needs to change, such as Jantz (2016) and Mathews (2012), are usually advocates of radical, paradigm-shifting innovation, although often in addition to incremental innovation. It could be argued that in the 'punctuated equilibrium' model used by J. Hayes (2014), it is being debated within the community whether or not academic library change.

However, this is not the only inconsistent guidance library leaders will encounter. As previously mentioned, there is the tension between the rationality of marketisation and McDonaldization promoting bureaucracy and the flexibility associated with 'new public management' approaches. In addition, since the traditional bureaucratic nature of academic libraries can be seen as a barrier to innovation and change (Jantz, 2017), there have been recommendations for academic libraries to move away from bureaucracy and be run more like enterprises, in order to become more adaptive in a constantly changing environment (Dempsey, 2012b; Mathews, 2012). However, as identified by Jantz (2016), it is not that simple; firstly, academic libraries will be influenced by the wider university organisation they operate in, which are in themselves hierarchical and bureaucratic. Quinn (2000) argues that, what he terms negatively the McDonaldization, rather than the marketisation of higher education, and the associated focus on efficiency and rationality, stifles innovation and creativity in academic libraries at a time when it is required. Jantz (2016)

identifies that the current services supported by the existing structures need to continue to be provided, alongside new innovations, again making attempts to move away from bureaucracy challenging. There is, also, the dilemma that while flexible and less hierarchical structures are more appropriate for encouraging the development of innovation, during the implementation of innovations a more process-driven, hierarchical structure is appropriate (Duncan, R. B., 1976). There is clearly, a tension for library leaders between hierarchical, bureaucratic and flexible, enterprise structures, and the need to focus on both existing services and innovation. Jantz (2016), therefore, advocates the need for academic libraries to become ambidextrous organisation, in which simultaneously supports both the exploitation of current services and the exploration of new ones.

What this demonstrates, however, it that the organisational structure of the academic library is evidently a crucial element library leaders have to consider when faced with these paradoxes regarding innovation in academic libraries, with this relationship between organisational structures and innovation acknowledged in the wider literature (Hage & Aiken, 1967; Hage, 1999). Some have even argued that dramatic changes to organisational structures are a type innovation in themselves that academic libraries could adopt in order to facilitate the transformation of the library (Damanpour & Avavind, 2011; Jantz, 2016). Deiss (2004) argues that innovations in organisational structure cannot truly be classed as innovations, since the change does not in itself add value to the customer. However, others have made the distinction between technical and service innovations that are directly related to the primary work of the organisation, which in the case of libraries is providing services to users, in contrast to managerial or administrative innovations that involve new organisational structures, strategies or other management practices in order to improve efficiency (Damanpour & Avavind, 2011; Jantz, 2016). Jantz (2016) even argues that managerial and administrative innovations are more important and must precede technical innovations in order to remove obstacles and facilitate the development and implementation of technical innovations. They state that, while providing a clear challenge for leaders, "Organizational structure is important for

innovation insofar as it is designed to facilitate the generation of new ideas and successful implementation of these ideas" (Jantz, 2016, p. 94).

2.5 Academic library structures

2.5.1 Trends in academic library structures

Since the early 20th century, in line with the management trends of the time, academic libraries developed very bureaucratic, hierarchical organisational structures (Jantz, 2016; Pugh, 2005; Simons, 2017). Bureaucratic structures can be very efficient, but inflexible, therefore, when significant changes began to affect academic libraries in the 1980s, new structures started to emerge (Simons, 2017). Since this time there has been a growing understanding that in order to meet the mounting challenges, radical changes are required to academic library structures (Biddiscombe, 2002; Franklin, 2009; Hoadley & Corbin, 1990; Jantz, 2012; Moran, 2001). However, these radical changes have rarely occurred and the literature strongly indicates academic libraries are more inclined to undergo incremental reorganisation of structures, rather than radical, disruptive transformations, which is often attributed to the perceived risk-averse nature of librarians, as well as the slow to adapt nature of universities as a whole (Hoadley & Corbin, 1990; Jantz, 2016; Neal, 2001; Pinfield et al., 2017; Simons, 2017; Stueart, 2013). Therefore, reorganisations have tended to focus on individual departments within the library, rather than full library restructures.

The first departments of academic libraries to undergo significant change were technical services, which includes acquisitions, serials and collection management departments, because of their close links with the for-profit sector, through publishers for example, meaning they were the first to experience the impact of growing technological change (Bordeianu et al., 1998; Novak & Day,

2015; Simons, 2017). Examples of such restructures in the literature are predominantly from the USA and include the merger of the acquisitions and serials department at the University of New Mexico (Bordeianu et al., 1998) and the reorganisations at the University of Louisville (Niles, 1988) and at Yale University (Crooker et al., 1991). All of these were conducted in order to streamline workflows in line with new technology. Since these departments perform business processes, they are, also, more conducive than other library departments to Total Quality Management (TQM) models, and later Lean Six Sigma, which became popular in the 1990s after initially being used in the manufacturing sector, and focus on improving processes in order to achieve a better service for customers (Khurshid, 1997; Owens, 1999; Simons, 2017). Reorganisations to these departments continue to occur as attempts are made to make these departments more cost-efficient (Champieux et al., 2008).

Simons (2017) identified the restructure of the libraries at the University of Arizona as the only real example of a truly transformational restructure, "that shook academic librarianship to its core...[by] trying something that had never been tried before" (p.55), with it also being singled out as one the most innovative structural change in academic libraries by Moran (2001). The ongoing restructuring process at the University of Arizona that began in 1993 was one of the first attempts to discard the traditional bureaucratic and hierarchical library structures by implementing "a teambased, customer-focused, quality, learning organization" (Phipps, 2004, p. 71). This involved flattening the structure and creating teams, each with a specific customer focus, with the intention of empowering staff by allowing each team to set their own goals and priorities in line with changing user needs (Giesecke, 1994; Phipps, 2004). Since then, there has been a growing acknowledgment in the literature regarding the need for flatter library structures, with fewer layers of management and increased use of self-managed teams in academic libraries, in order to create more flexible organisations that are quickly adaptable to change, which has led to the increased use of teams by academic libraries (Andrade & Zaghloul, 2010; Jeal, 2015; Moran, B. B., 2001; Pugh, 2005; Zhu, 2011). This is, also, related to the use of TQM in libraries as it is linked with the implementation of

team-based, flatter structures that provide staff with more autonomy (Khurshid, 1997; Owens, 1999; Wang, 2006). However, nearly ten years later after the University of Arizona restructured, Berry (2002) believed that despite significant interest in Arizona's team model, it had rarely been implemented elsewhere to the same extent, while over twenty years later Jantz (2016) still views academic libraries as essentially bureaucratic in nature.

Another example of a significant and novel trend in academic library structures was the move during the 1990s and 2000s towards convergence. Field (2001) describes this as "the situation in which the library and academic computing services, with or without other services, are brought together for managerial purposes under a common full-time executive director generally recruited from a professional information background" (p. 268). It has been identified that the trend began in the United States during the 1980s at Columbia University, with some small universities in the UK, predominantly former polytechnics, choosing to adopt the approach in the late 1980s (Field, 2001). However, the first major, and well documented, example of convergence in the UK occurred at the University of Birmingham (Field, 2001), and the move established a radical change since it involved the dissolution of previous structures of the library, computing and media departments in order to create a single new departmental structure (Law, 1998; Shoebridge, 2005). In many ways, as identified by Hanson (2005), this was influenced by the Follett (Joint Funding Councils' Libraries Review Group, 1993) and Fielden (John Fielden Consultancy, 1993) reports in the UK, both of which promoted the advantages of convergence and recommended it as an approach to managing information services within universities. Subsequently, many more converged services were formed, with some estimates declaring that up to 50% of UK universities were running converged services in the early 2000s, although the permutations of convergence varied between institutions (Field, 2001). The trend towards convergence came about because of the growing dependence of the library on electronic resources and technical infrastructure (Field, 2001). When Hanson (2005) investigated the trend towards convergence using case studies, it was identified that the main advantages for convergence were the ability to create a clear, overall strategic direction for

information management for the institution and create a customer-focused culture based on new service delivery models, such as one-stop-shops and integrated service points. Despite these documented advantages of convergence, the initial growth of converged services in the US did not continue (Hardesty, 2005; Joint, 2011) and, outside of the UK, in Europe convergence is rare (Collier, 2005). Even in the UK, following the initial enthusiasm for convergence there was a period of reconsideration, with many examples of "deconvergence" taking place (Corrall, 2014; Joint, 2011).

The convergence model, while not as popular as it was, still exists at some institutions, however, many are now taking the concept of convergence a step further now and moving towards "super-convergence", which is where universities:

"...bring together a range of support activities that are generally focused on student support and are structurally converged. In some institutions these superconverged services are supported by a common help-desk and are sometimes provided from one building. The services include library, IT and AV support with additional support services including – but not limited to – careers, welfare and counselling, student administration, chaplaincy support, student finance, learning development, study skills and programme administration." (Heseltine et al., 2009, p. 122)

Super-convergence is a significant illustration of the trend, previously discussed, in academic libraries towards collaborating with other university departments to support the student experience. Bulpitt (2012) acknowledges that, significantly, the first examples of super-convergence coincided with the increase in undergraduate student fees of September 2012 and related changes that created greater competition between universities. Since this is a structural approach aimed at improving the student experience, of the relatively small number that have adopted it, most are post-1992, teaching-led universities, which could be because research services have the potential to

become hidden in such a structure (Bulpitt (ed.), 2012; Heseltine et al., 2009). However, this a developing trend, which has the potential to have huge implications on future library structures.

Despite these various examples of restructures and reorganisations, it has to be considered that sometimes specific models of organisational structures grow to dominate, but then subsequently will diminish in popularity (Hoadley & Corbin, 1990), such as the original convergence model. Corrall (2014) has identified that, generally, since the 1980s, academic libraries have settled on structures whereby technical, clerical back office, such as acquisitions, serials and cataloguing/classification, along with front-of-house service, for instance circulation, are arranged into functional teams, but the academic support element of the structure consists of individuals or teams that support specific subjects. This is what Child (1988) describes as a mixed structure where different types of structures to combines in an attempt to benefit from the advantages of different types of structure.

Although impossible to investigate in isolation, the focus of this research is not the overall structure of academic libraries, but the element of the structure that focuses on providing academic and research support. It is interesting that academic libraries have for years being acknowledging the need to become more user focused (Moran, 1980), and yet the part of the library structure providing academic and research services to users appears to only have begun to receive significant attention and reconsideration relatively recently.

Woodhead and Martin (1982) conducted a survey of subject specialisation in UK university libraries and identified five different classifications for how libraries are structured:

- Functional where there is no subject specialisation
- Dual where some librarians have subject-based roles and others have functional roles
- Hybrid where librarians have both subject and functional responsibilities

- Three-tier where senior librarians have subject responsibility and functional responsibilities are provided by middle grade members of staff and supported by clerical staff
- Subject where there are subject teams consisting of all levels of staff, which are supported by some functions being performed by a central team (p. 98)

What is interesting about these categories is that all but one has a clear element of subject specialisation. Significantly, Woodhead and Martin (1982), conducted this survey because they believed that there was the possibility that organising support and services around subjects may become unfeasible in the future due to decreasing budgets. Yet, significantly, when Martin (1996) repeated the study 15 years later structures with a strong subject-based element still dominated. The hybrid structure had also fallen out of favour between the two surveys, with the dual structure having grown in popularity and come to dominate, illustrating how structures are constantly changing and go in and out of fashion. Nevertheless, subsequently, both Carpenter (2007) and Corrall (2014) have concluded in their investigations that there was a continuing trend for subject-based academic support.

However, significantly, structuring academic services around subjects developed from a need to have librarians with subject knowledge to build print collections for academic departments (Day & Novak, 2019; Gaston, 2001). Therefore, as the traditional roles of collection development and reference support decrease and the range of academic services the library provides increases (illustrated in Section 2.4.2), this, coupled with the growth in interdisciplinarity, has resulted in the viability of the subject-based model increasingly coming into question (Gremmels, 2013; Jakubs, 2008; Rodwell, 1992; Rodwell & Fairbairn, 2008). This questioning is further fuelled by the debate around whether or not subject librarians require deep subject knowledge (Auckland, 2012; Raju et al., 2018).

2.5.2 Restructuring around functional teams

Whilst subject-based structures have come to dominate academic library structures, organisational structures that have no subject-element are not new. In the original survey conducted by Woodhead and Martin (1982), 13 out of 61 UK university libraries that took part were identified as being functional. When Martin (1996) repeated the survey this had significantly reduced to 6, which, whilst suggesting the growing unpopularity for the model at the time, does illustrate the continued existence of alternative models to subject-based structures. Whilst not identifiable as a functional structure, Xu and Jahre (2018) discuss how Lafayette College Library in Pennsylvania has operated with without a subject-based approach since the early 1990s.

Significantly, the idea that subject librarianship is not a sustainable model for structuring academic libraries and structuring around functional teams could become the dominant organisational model was discussed by Richard Heseltine, the Librarian at Hull University, in the 1990s when he was quoted as saying:

> "In the future, I think that the delivery of end-user services will be much more systematized. Not only to overcome some of the problems of management associated with subject librarianship, but because that will be the only way to contain expenditure...What I think will emerge is an organizational structure...which is based on functionally-based collaborating teams. I think the generic model of subject librarianship will disappear." (Martin, J. V., 1996, p. 167)

Dennis Dickinson in the late 1970s is also reported to have held similar views to Heseltine regarding the use of functional teams in university libraries, nevertheless, such views have generally been regarded as radical until recently (Gaston, 2001; Martin, J.V., 1996).

When Corrall (2014) identified the continuing trend of subject-based structures, they singled out the UML as an exception to this, having recently decided to dismantle their traditional subject-

based structure and replace it with functional teams. Whilst it has been identified that functional structures were not a completely new way to structure academic libraries in the UK, the difference with the restructure at UML was that it was part of an overall change in strategy and direction for the library. The aim of the restructure was to align the library with the University's strategy around teaching, learning and research, and involved attempting to instil new values and a significant cultural change, while simultaneously endeavouring to communicate this transformation to the rest of the University (Jeal, 2015). Although, this use of a restructure to signify a change in the strategic direction of an academic library is not unique. The most notable example of such a restructure being the, previously mentioned, restructure at the University of Arizona (Berry, 2002), with strategic alignment also being the main driver in restructures at the libraries of the Macquarie University in Australia (Brodie, 2012), the University of South Australia (Doskatsch, 2003) and the University of Connecticut (Franklin, 2009). However, the significance of the restructure and repositioning of the UML was due to the high profile nature of the shift that focused on the rare use of functional teams in the UK, which consequently created a surge of interest and debate in the professional community in the UK around the phenomenon (Hoodless & Pinfield, 2018).

As with the first examples of super-converged services in the UK, the restructure around functional teams at the UML in 2012 coincided with the rise in undergraduate tuition fees. This event appears to have provided impetus for university libraries to evaluate the service provided to students, and, consequently, their structures. Since this time other UK university libraries have decided to restructure around functional teams, with examples discussed in the literature including the libraries at the University of Nottingham (Eldridge et al., 2017), Northumbria University (Woolley & Core, 2018) and the University of Birmingham (Ashcroft et al., 2020). There are also further example from outside of the UK. Prior to the restructure at the UML, the University of Arizona (Andrade & Zaghloul, 2010), the library of the University of South Australia (Doskatsch, 2007) and the library of the University of Guelph (Jaguszewski & Williams, 2013) all chose to restructure around functional teams. In addition, the library at and Aarhus University Library in Denmark (Larsen & Riis,

2012) restructured at a similar time to the UML, and the library at National University of Ireland Galway (Cox, J., 2017), the Health Sciences Library at McMaster University in Canada (Banfield & Petropoulos, 2017) and University of Cape Town libraries (Raju et al., 2018) have since restructured around functional teams. Another similar example is the University of Kansas libraries, which decided to restructure around user groups having three separate teams supporting undergraduates, postgraduates and faculty (Ellis et al., 2014). Whilst not strictly functional teams, it could be argued to be similar since the team focusing on undergraduates is likely to be focused on teaching and learning support and the team for postgraduates on research support, with the faculty team potentially equating to an engagement team. Altogether, it is clear that restructuring around functional teams is a growing trend not just in the UK, but also in academic libraries around the world.

Hoodless and Pinfield (2018) investigated this growing phenomenon by interviewing 11 senior library managers at a range of university libraries in the North and Midlands of England in order to determine how functional teams, which focus on research support and teaching and learning support separately, were being used as an alternative to a predominantly subject-based support model. Notably, the results of the research showed that there was a distinct split in opinions around this phenomenon, with some library managers believing that restructuring university libraries around functional teams was the way forward, and others remaining sceptical of this new approach and defending the continuing validity of the long-standing subject-based structures. Differing opinions, however, did not seem to relate in any discernible way to the size or mission group of the universities concerned. Below, Figure 2.4 illustrates the conflicting drivers influencing decisions regarding the organisational structuring of academic and research services in university libraries that were identified by Hoodless and Pinfield (2018):

Drivers for function-based **Drivers for subject-based** structures structures Ensuring a consistent approach Tailoring services and support to services and support Linking to the overall university Reflecting the university strategy of teaching and disciplinary-based structure research excellence Retaining the effectiveness of Instigating cultural change traditional structure and the support of library staff Building visible and distinct Maintaining the integration of areas of expertise and ensuring services supporting teaching and focus research Strengthening partnerships and Creating partnership and links links with academic departments with other university teams

Figure 2.4: Opposing drivers for both functional and subject-based library structures (from "Subject v. functional: Should subject librarians be replaced by functional specialists in academic libraries?" by C. Hoodless and S. Pinfield (2018). Journal of Librarianship and Information Science. <u>https://doi.org/10.1177/0961000616653647</u>)

Significantly, many of the drivers identified in this research, particularly strategic alignment and growing expertise in research support, align with the drivers discussed in the literature by practitioners who are discussing the functional restructures that have occurred in their own academic libraries (Cox, J., 2017; Doskatsch, 2007; Raju et al., 2018; Woolley & Core, 2018). Two of the key drivers for restructuring around functional teams that Hoodless and Pinfield (2018) identify are that of aligning to university strategies and instigating cultural change within the library, which relates to the previously mentioned McKinsey 7S Framework (Peters & Waterman Jr., 1982) by illustrating the interdependence between organisational structure and other organisational factors.

It is, also, interesting that in Hoodless and Pinfield's (2018) analysis there can be found an implicit driver for the move to functional teams; that of the fear that subject librarians have too much autonomy and freedom, which has led to the belief that an inconsistent approach to services and support between different subjects has developed, with negative comments being made regarding subject librarians "going native". Commentators such as Jantz (2016), Pugh (2005) and Simons (2017) have characterized library structures as being inherently bureaucratic and hierarchical, and advocated for libraries to develop flatter, more organic, structures where staff work in teams and are self-directed. However, these commentators are concentrating on the elements of the library that deal with business processes, such as acquisitions, and fail to acknowledge that subject librarians have always been more self-managed than other areas of the library. Therefore, paradoxically, despite the recommendations for less bureaucratic structures previously discussed the move towards functional teams could be seen as an attempt to bring more control to this element of the structure. Quinn (2000) goes as far as to equate the increasing specialisation of library work to an "intellectual assembly line" that contributes to the further bureaucratisation and control in academic libraries, which he attributed to the increasing focus on efficiency and rationality in higher education. As Jeal (2015) states, while the UML have moved significantly away from the traditional, hierarchical structures of the past, there is now "a hybrid of hierarchy and horizontal structures of planning and freedom" (p.292). An apparent illustration of the "hybridization" of bureaucracy described by Reed (2005).

2.5.3 Adapting subject-based structures

What emerged from the research carried out by Hoodless and Pinfield (2018), was that managers agreed that academic library structures need to change due to the increasing roles and responsibilities academic libraries are taking on, particularly relating to research services. Libraries that have attempted to accommodate these within existing organisational structures, are realising this is becoming unfeasible (Bass & Slowe, 2018). However, there is no agreement on the correct structural approach to be taken. By no means are all academic libraries abandoning their traditional structures in favour of the UML's functional approach, with some senior managers strongly supporting the continuation of a predominantly subject based structure (Hoodless & Pinfield, 2018).

Figure 2.4 illustrates the reasons identified by Hoodless and Pinfield (2018) as to why some senior library managers were maintain their subject-based structures, with the key concern regarding the functional approach being the loss of the strong relationships subject librarians have with their academic departments and the ability to tailor services. These reasons for maintaining a subject-based structure are echoed in some articles written since the trend towards functional teams began, and in some cases in response to this trend, defending subject-based librarians and arguing for the value they add to the library and its services (Curry & Farmilo, 2018; Day & Novak, 2019). Therefore, rather than abandoning subject-based structures entirely, many libraries have attempted to supplement and support the role by combining functional and subject models (Hoodless & Pinfield, 2018; Jaguszewski & Williams, 2013).

Jaguszewski and Williams (2013) identified how "a hybrid model of liaison and functional specialist is emerging" (p.7), with some libraries implementing a matrix model with, for example, the subject approach remaining but each librarian also devoting a proportion of their time to a functional area of expertise (such as open access), and liaising across disciplinary areas regarding this function. For example, the University of Kent have adopted this matrix approach by maintaining their subject-dominated structure through the use of three distinct teams, one for each of the

university's faculties, but then giving each of the Faculty Librarians who manage the teams responsibility for one of the university's strategic aims; Engagement, Teaching and Research (Bass & Slowe, 2018). Significantly, these are the same strategic aims that the UML used as the basis of their new functional structure.

Other institutions have decided to create specialist functional roles or teams, which act to support, rather than replace, the subject librarian role. These provide expertise in areas such as copyright, e-learning, open access, research data management and instructional design, to name a few, and include roles such as 'research support librarian', 'systems librarian', 'research data managers', 'information literacy educators', and 'repository managers' (Bradbury & Weightman, 2010; Brewerton, 2012; Corrall, 2014; Cox, A. M., & Corrall, 2013; Hoodless & Pinfield, 2018; Mamtora, 2013). It should also be noted that these hybrid approaches are not mutually exclusive, since at the University of Kent, in addition to their matrix structure, new posts were created that specifically focus on REF submission, Open Access requirements and Scholarly Communication (Bass & Slowe, 2018).

Significantly, where the subject-based model is retained, new functional roles and teams tend to be dedicated to research support, rather than teaching and learning support. This is unsurprising given the focus in the literature on developing new roles to support research, with little discussion regarding new teaching and learning roles (Auckland, 2012; Brewerton, 2012; Corrall, 2014; Corrall et al., 2013; Haddow & Mamtora, 2017; Koltay, 2016). Some examples from the literature of libraries that have developed research support roles and teams include the University of Kent (Bass & Slowe, 2018), Victoria University of Wellington (Lang et al., 2018), the University of Queensland (Brown, S. et al., 2018) and the University of the West of England, Bristol (Belger & Crossley, 2017). Significantly, for all these examples, strategic alignment was cited as the main driver for developing these teams and roles, similar to the drivers identified for undertaking a full restructure around functional teams, however, they all work alongside librarians that are aligned to

subjects. S. Brown et al. (2018) demonstrated how the aim was for the staff in the functional research roles, who provide the expertise in research support, to work collaboratively with, and complement, the subject-based librarians, who have an understanding of subject-specific research support needs.

2.5.4 Functional-subject spectrum

Altogether, what is emerging from the literature is that, while academic library organisational structures are changing, there is yet to emerge a single 'ideal' model and a variety of different responses to the need for academic libraries to adapt and change their structures is emerging. Significantly, many doubt that such a model could emerge, due to the specific environment and unique characteristics of both the library and the overall university it serves, which includes size, strategy, leadership and culture (Hoadley & Corbin, 1990; Hoodless & Pinfield, 2018; Moran, B. B., 2001; Schonfeld, 2016). As Hoodless and Pinfield (2018) discovered academic library structures exist more on a spectrum, with different library organisational structures consisting of differing balances of functional and subject-based elements. In fact, as Schonfeld (2016) states, it is actually very difficult to fit organisational structures into categories, since managers will often borrow elements from multiple models to create a structure which fits their institution. One view held by Lankes (2014) regarding the future of academic libraries is that:

"There is no one way to run or structure a library. The days when there was a single model for an academic library, if they ever existed, are gone. The idea that the academic library is a store house of books and materials is gone. The notion that a library can serve off to the side of the mission of the university is gone. What is needed today is a commitment by university administration and librarians to reinvent the whole concept of academic libraries."

Taking this perspective, academic libraries would look very different from each other in the future, which could account for the continued discussion and uncertainty around this issue, as commentators attempt to generalise changes to all academic libraries. Schonfeld's (2016) findings support this view, with his research finding there was no optimal model for the organisational structures of research libraries, putting this down to a variety of complex factors including leadership style and organisational culture. The findings of Hoodless and Pinfield (2018) also support this view since they found a lack consensus regarding the future of academic libraries experiment with ways to attempt to adapt to changes and change traditional mindsets. Institutional type is, also, used to explain the potential variance in future academic library models as academic libraries try to align to the missions and priorities of their individual parent institution, as teaching-led universities are likely to have differing missions and priorities to research-intensive universities (Pinfield et al., 2017). However, despite this perception, Pinfield et al. (2017) found no major variation in the priorities of libraries operating in different institution types in their research, and Hoodless and Pinfield (2018) found no connection between institution type and organisational structure.

This potential divergence of academic libraries fits with Contingency Theory from the management literature (Donaldson, 2001), since the importance of the external environment and organisation's strategy are clearly highlighted, but also Child's (1972) concept of "strategic choice", since the organisational structures chosen will illustrate the priorities of the decision makers in the library. For example, Martin (1996) identifies that the opinions of managers as to the importance of subject specialisation is the main influence in deciding the design of the organisational structure, and consequently, how successful the library is. In addition, Hoodless and Pinfield (2018) found that a move to functional teams could be seen as a radical attempt to align the structure with the strategy, while those who had retained the subject model were applying changes more incrementally. Thereby, certain library managers appear to be adopting Chandler's (1962) more prescriptive

approach of structure following strategy, while others appear to be following Quinn's (1980) more emergent approach of "logical incrementalism."

While the "strategic choice" of decision makers cannot be ignored, organisational structures will need to be regularly reviewed and updated in line with changes to the external environment, and as stated by Schonfeld (2016), "the best organizational structure for today will be imperfect and will at some point in the future need to be rethought" (p. 25). This is why there is dominant theme in the literature regarding creating organisational structures that are flexible, agile and quickly adaptable to change, since academic libraries are operating in a great period of change and transformation with no end in sight (Bulpitt (ed.), 2012; Jeal, 2015; Nutefall & Chadwell, 2012; Stueart, 2013; Tennant, 2002).

2.6 Impact on librarians

2.6.1 New roles, skills and responsibilities

As trends and organisational structures in academic libraries develop in line with the ever changing environment they are operating in, staff are going to be required to "continually reimagine their roles and interactions with the community" (Holmgren & Spencer, 2014, p. 3). This means there will be an increased emphasis on the need for "personal skills such as creativity, flexibility, and communication" (Simmons & Corrall, 2011, p. 26), but also resilience (Mackenzie & Martin, 2016b). As it is becoming increasingly acknowledged that librarians are likely to move around roles and take on new responsibilities as they progress throughout their careers, a greater emphasis is being placed on soft skills, with recognition that more role specific skills can be acquired through training and experience while working (Jaguszewski & Williams, 2013; Pinfield et al., 2017). This is a trend seen

throughout society where there has been a strong move away from the one-job-for-life culture (NMC, 2016; Susskind & Susskind, 2015).

Since reductions in specialist technical, cataloguing and collection related posts are predicted (Wolff, 2017), rather than having specific technical skills, which will constantly need updating, it is believed that communication and collaboration skills are going to be more important as the librarian role becomes less about providing access to information and technology and more about facilitating and consulting (Holmgren & Spencer, 2014). The increase in collaborative and partnership working also brings with it new challenges, and, therefore, new skills librarians require. Partnership working requires "the capacity to cultivate trusted relationships" (Jaguszewski & Williams, 2013, p. 14) by means of excellent coordination, negotiation and personal influence skills (Anand & Daft, 2007). These are particularly important in order for librarians to have the ability to effectively strike the required balance between collaboration and competition for resources and jurisdictions (Pinfield et al., 2017). There is also a need for librarians to have strong leadership skills, even if they are not in positions of power, not only to facilitate effective collaboration, but also for libraries to become leaders within their institutions (Jaguszewski & Williams, 2013). This includes skills relating to advocacy and persuasion (Malenfant, 2010). For librarians collaborating on projects, for example relating to digital scholarship or digital humanities, strong project management skills will be also required (Currier et al., 2017). Furthermore, in terms of soft skills, Quinn (2000) states that the most important criteria for recruiting future librarians should be their creativity and risktaking ability in order to create an innovative environment which is able to adapt quickly to change. Yet, significantly, due the previously discussed traditions that resist change, librarians have been seen to be risk-averse (Bell & Shank, 2004).

In terms of the more specific skills required for certain roles, due to the fast-paced nature of academic librarianship, librarians are increasingly having to rely on continuous professional development (CPD) as they progress through their careers (Bains, 2013; Corcoran & Mcguinness,

2014; Simmons & Corrall, 2011). The skills they will require depends on the roles and responsibilities they are undertaking. Whether in a functionally structured library or in support of a subject structure, there is an awareness that there will be an increasing number of specialist roles for librarians, particularly in relation to specialist research support, including research data management, digital humanities and open access (Wolff, 2017), for which a plethora of new skills will be required. In a report funded by Research Libraries UK, Auckland (2012) identified 32 new areas of skills and knowledge which academic librarians would require to effectively support researchers. These included areas of skills and knowledge relating to data mining, preservation of research outputs and project records, data management and curation, research funding and data manipulation tools, to name a few that would illustrate some of the largest differences from the traditional skills and knowledge base of librarians.

Whilst there appears to be less demand for specialist roles relating specifically to teaching and learning in comparison to research (Wolff, 2017), this could be because this is more traditionally the domain of librarians. Yet new skills will need to be developed if librarians are to "think more like educators and less like service providers" (Bennett, 2009, p. 194), in order to move beyond traditional librarians skills and support the learning missions of their institutions. This means that librarians need to acquire pedagogic knowledge and skills, knowledge of VLE's, the ability to design courses and course materials and knowledge of assessment techniques (Biddiscombe, 2002; Doskatsch, 2003; Gaston, 2001; Hepworth, 2000). As stated by Melling and Weaver (2017), "Academic librarians' skills have evolved to reflect changes in learning and teaching" (p. 157). They go on to summarise some of the future skills that librarians will require in relation to teaching and learning that were discussed in an article by Robinson (2016), which include knowledge and skills around digital pedagogies, Big Data, digital asset management, learning analytics and social media data analysis. It has also been discussed how knowledge of social media sites is required in order to take advantage of the full range of ways of engaging with users (Parfitt, 2016). As well as skills and knowledge relating to teaching, since there is an increasing focus on contributing to the entire

student experience, librarians require knowledge beyond teaching to include an understanding of other aspects of the student journey, including recruitment, retention and progression into employment or further study or research (Weaver, 2013).

2.6.2 Specific impact on the subject librarian role

The skills librarians require now varies considerably from those required of the traditional subject librarian. As stated by Gaston (2001) "the role that subject librarians perform has evolved from subject-based collection development into subject-based user support" (p.21). When Woodhead and Martin (1982) carried out their investigation into the extent to which library functions were performed on a subject basis, they were considering the tasks that included academic liaison, cataloguing and classification, reader education, book selection, inter-library loans, receipting and serials. However, since then the key functions subject librarians perform have changed to become based around two main function. The first is still academic liaison, the importance of which can be seen in the emergence alternative job titles such as 'Liaison Librarian', 'Outreach Librarian' and 'Academic Support Librarian' (Brewerton, 2011; Gaston, 2001; Pinfield, 2001; Rodwell & Fairbairn, 2008). The second is providing information literacy skills training (Pinfield, 2001), with Brewerton (2011) identifying this role as the dominant feature of subject librarian job descriptions.

However, as libraries expand the services they offer, as discussed in Section 2.4.2, subject librarians have taken on extra responsibilities and there has been the increasing perception that they need to "do all of the old job plus a lot more on top" (Pinfield, 2001, p. 34). This has led to some, such as Rodwell and Fairbairn (2008), questioning the sustainability of the model. There are some who argue that subject librarians have successfully adapted to changes and, therefore, remain relevant (Brewerton, 2011; Crawford, 2012; Pinfield, 2001). However, recent developments and

changes to academic libraries around research agendas have particularly impacted on the subject librarian role, with Martin (2016) arguing "that the greatest impact of the digital scholarship agenda is on the subject librarian, a traditionally academic- and student-facing role" (p.15).

One person can clearly not process all the skills and knowledge discussed in the previous section, therefore, rather than the subject librarian who requires broad knowledge and a wide ranging skill set to effectively support the academic departments they serve, there is increasing need for librarians who are, what Corrall (2016) describes as, t-shaped, pi-shaped or comb shaped. This is where people have deep specialist knowledge in at least one area, but then the broad ability to undertake innovative, boundary spanning activities (Barile et al., 2015; Corrall, 2016). Just some of these more specialist roles that are developing in academic libraries include repository managers, systems librarians, digital curators, research data managers and teaching librarians (Cox, A. M. & Corrall, 2013). This is leading to questions regarding whether librarianship is now "a specialist profession, or a profession of specialists?" (Salo, 2015).

2.6.3 Impact on identity and the profession of librarianship

What the profession of librarianship is clearly witnessing is "an increase in the diversity of professional roles" (Mackenzie & Martin, 2016b, p. 174), which is going to impact on the librarianship profession and its identity. Specialisation in roles, such as those found in functional structures, but also those used to support a subject-based structure, brings its own challenges. Quinn (2000) argues that while it is meant to promote better, more efficient, use of librarian skills, in fact specialisation means that skills are underutilised and the broad librarian skillset is eroded. This could make movement between roles more difficult, and issues could develop if specialised tasks become redundant or are able to be undertaken more efficiently by technology in the future (Susskind & Susskind, 2015). It has also been found that greater task variation in a librarian position

increases motivation, engagement and commitment towards the role and the library (Chen-Chi & Cheng-Chieh, 2013). Specialisation is also associated with poor communication with related specialists, the development of silos and professional isolation, with professionals failing to have a holistic overview and approach to services (Susskind & Susskind, 2015). All of this could lead to what Salo (2014) decribes as 'professional isolation', where staff do not feel connected to the overall profession.

In addition, there is acknowledgment of the need to bring in expertise, particularly technological and marketing expertise, from outside the librarianship profession to fill some of the specialist tasks developing in libraries, but there are concerns for what this means for librarianship as a profession and its core values (Gremmels, 2013). This fluidity of professional roles also extends the other way with librarians increasingly being able to move to other career paths due to the transferrable soft skills and knowledge librarians are requiring (Howard, R. & Fitzgibbons, 2016). Along with the increase in collaborative and partnership working with other professional identify for librarians (Cox, J., 2018; Pinfield et al., 2017). While this could be seen in a negative way and lead to resistance to change from librarians and calls for librarians to work at ways of maintaining their distinctive identity (Cox, J., 2018), other such as Jantz (2012a) would argue that by bringing expertise in from outside the profession, a more diverse organisation in terms of skills and knowledge is created that works against the isomorphic forces of a professionally based organisation to create a more innovative environment.

Changes to professional work and identity are not confined to librarianship, but can also be seen in other professions found in higher education, as well as more generally throughout society. All the changes occurring to the librarianship profession could be seen as the natural evolution all professions go through as social forces continually change the jurisdictional boundaries of

professional work by destroying old tasks, while simultaneously creating new areas of work (Abbott, 1988, 1998). This can clearly be seen in the way librarians have attempted to move away from the traditional concept of the library and take on new roles. However, while traditionally professions held autonomy over their domains, there is a growing fear that factors such as globalisation, managerialism and greater access to information are "undermining the power and status of professional workers" (Wilkinson et al., 2016, p. 3). When referring to the impact of neoliberalism on higher education, Olsen and Peters (2005) argue that "there has been a shift from 'bureaucraticprofessional' forms of accountability to 'consumer-managerial' accountability models" (p. 328). Traditionally, professionals working within organisations were used as coordinating mechanisms to control and standardise work (Mintzberg, 2003). However, Evetts (2016) argues that control is now moving to managers and states that "organizational principles, strategies and methods are deeply affecting most professional occupations and expert groups, transforming their identities, structures and practices" (p.24). The impact of managerialism on academic librarianship has been discussed, but this is clearly a widespread societal trend, which has led to professions adapting by amalgamating with organisations and managerial principles to create 'hybrid professionals' (Evetts, 2016; Wilkinson et al., 2016). This could be argued to be what Abbott's (1998) sees as the necessary 'redefining' of professions that is necessary for their survival. However, Susskind and Susskind (2015) hold the extreme view that due to technological advances which are changing the way expertise is distributed in society, there is the potential for the professions to not be redefined, but, in fact, dismantled in the future.

2.7 Summary of chapter

This literature review has presented the main theories from the management literature that relate to organisational structures, before establishing the environmental context academic libraries are operating in, which is requiring them to reposition their role and transform their services away from a focus on collections. The plethora of new services discussed in the literature that are consequently bring provided by academic libraries were highlighted, and the perception that academic libraries need to innovate in order to survive was examined. Finally, the trends in the organisational structures of academic libraries that were resulting from these changes were presented, before the overall impact on librarian roles, skills and the profession as a whole was considered.

3. Methodology

3.1 Introduction

This chapter presents the methodology and methods that were used to carry out this research. It begins with a discussion of critical realism, which is the philosophical position underpinning the research, and then presents how critical realism and the research aims and objectives resulted in the decision to adopt an exploratory, sequential mixed methods design. Subsequently, each stage of this exploratory, sequential mixed methods design is broken down and examined, along with the methods that were used for data collection and data analysis, with the initial qualitative stage consisting of a multiple, comparative case study and the quantitative stage comprising of a survey design. In order to address the research aims and objectives fully, the last stage of the research was the integration of the results from both the qualitative and quantitative strands of the research. Throughout this discussion, how the research design has been driven by critical realism is explained. At the end of this chapter, the ethical considerations related to the research are discussed.

3.2 Research philosophy

This research has been conducted broadly from a critical realist perspective. This philosophical perspective originated in the work of Roy Bhaskar in the 1970s and has developed as an alternative to both the positivist and the contrasting constructivist approaches to social research

(Carlsson, 2003; Maxwell & Mittapalli, 2010; Sayer, 2000). Sayer (2000) describes it as the middle ground between these two extremes, with Maxwell and Mittapalli (2010) defining it as:

"...an integration of a realist ontology (there is a real world that exists independently of our perceptions, theories, and constructions) with a constructivist epistemology (our understanding of this world is inevitably a construction from our own perspectives and standpoint, and there is no possibility of attaining a "God's eye point of view" that is independent of any particular viewpoint)" (p.146)

It has been acknowledged by Maxwell (2012) that those following a critical realist perspective often diverge from Bhaskar's position and there are variations in the ways critical realism is used, however, it is this fundamental position around ontology and epistemology that unites them. From an ontological perspective, Bhaskar (1975) describes reality as being stratified into three overlapping domains; the empirical, the actual and the real. The *empirical* makes up events that are experienced and can be observed, and is nested within the *actual*, which also includes events that may not be observed or understood. However, both the *empirical* and *actual* are contained in the *real*, which encompasses the whole of reality, but significantly also includes the mechanisms and structures causing the events (causal mechanisms) in both the *actual* and the *empirical* domains (Bhaskar, 1975; Easton, 2010; Mingers, 2004; Vincent & Wapshott, 2014). Figure 3.1 illustrates this stratified reality of critical realism.

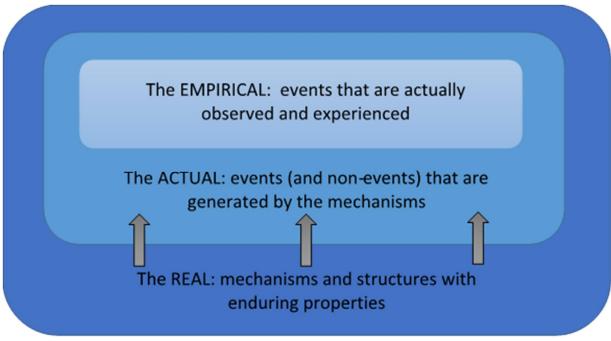


Figure 3.1: The stratified reality of critical realism Adapted from Mingers (2004, p. 94)

Accordingly, from a critical realist perspective, reality reaches beyond the data researchers are able to collect from the empirical domain, with the core aim of critical realism being to go beyond description and identify the underlying, and often unobservable, mechanisms and structures that explain the outcomes being observed (Bhaskar, 1975; Fletcher, 2017; Leca & Naccache, 2006; Sayer, 2000). This is in contrast to positivism and constructivism, which while evidently holding opposing views, both equate reality to that which can be observed – for positivism often through the results of experiments and for constructivism by way of human perception (Fletcher, 2017; O'Mahoney & Vincent, 2014). Fletcher (2017) discusses a three step approach used in critical realism to identify the underlying structures and mechanisms, or causal mechanisms. Whilst rejecting that outcomes can be predicted in the way that *X* will always result in *Y*, the initial step is to identify 'demi-regularities' or 'tendencies' in the data, whereby rough trends and patterns in the data are established. The next two steps, which can be carried out concurrently, are then abduction, whereby theory is applied to establish the most plausible explanation for the 'demi-regularities', and retroduction, which seeks to identify the contextual conditions required for the 'demi-regularities' to

occur and establish the causal mechanisms that are generating the events (Fletcher, 2017; O'Mahoney & Vincent, 2014). All the while, it is recognised in critical realism that all theories, both applied and generated, along with any findings and recommendations are fallible due to the epistemological foundations of critical realism being that knowledge is social constructed (Bhaskar, 1975; O'Mahoney & Vincent, 2014). Altogether, the key aim "is to modify, support, or reject existing theories to provide the most accurate explanation of reality" (Fletcher, 2017, p. 190).

Significantly, it is acknowledged in critical realism that mechanisms are highly dependent on context, whereby the context comes from a complex, time-related interaction between structures, made up of embedded practices, routines and relationships combined with the agency of individuals acting within these (Fleetwood, 2004; Kempster & Parry, 2014). To illustrate this Pawson and Tilley (1997) proposed a framework of "mechanism + context = outcome" (p. xv). Unlike laboratory experiments which can broadly create closed systems by controlling for external factors, critical realists regard the social world as an open system, whereby there are an unknowable number of contextual factors that cannot be eliminated (Bhaskar, 1975; O'Mahoney & Vincent, 2014; Pawson, 2006; Pawson & Tilley, 1997; Wynn Jr & Williams, 2012).

Critical realists accept that the same mechanism in a different context will not inevitably lead to the same outcome, as well as acknowledging that settings with similar contextual features have the ability to experience different outcomes (Leca & Naccache, 2006; Wynn Jr & Williams, 2012). When either of these are identified, investigation of the phenomenon in question can increase the understanding of the causal mechanisms at play (Leca & Naccache, 2006; Wynn Jr & Williams, 2012). It is also recognised that in social science research there is often a complex interaction amongst mechanisms whereby no single mechanism determines an outcome, unlike the natural sciences where variables can often be controlled in experimental conditions (Bhaskar, 1975). Consequently, different combinations of mechanisms could produce the same outcome and a mechanism may exist in a situation but is not creating any observable outcomes because of the

counteracting effect of other mechanisms (Danermark, 2002; Sayer, 1992; Wynn Jr & Williams, 2012). Therefore, "the strength of realist explanation lies in its ability to address complexity through recognising the contingent relationship between context and causal powers (mechanisms) to bring about change (or for things to stay the same)" (Emmel et al., 2018, pp. 12–13).

It is this strength that has led to the increasing recommendation and application of critical realism within organisational, institutional and management studies, due to the complexity inherent to the issues being studied in these fields and the open system nature of organisations (Ackroyd, 2009; Edwards et al., 2014; Fleetwood, 2005; Fleetwood & Ackroyd, 2004; Leca & Naccache, 2006; Reed, 2009). This research project focuses on the changing organisational structures of academic libraries, however, as illustrated in the literature review when discussing the McKinsey 7S Framework (Peters & Waterman Jr., 1982) this is just one part of a larger web of interconnected, contextual elements that structure cannot be separated from. Critical realism, therefore, allows for the complexity of this phenomenon to be addressed in the research in a holistic manner.

In addition, this research can be classed as interdisciplinary, since it spans the fields not just of management and organisational studies, but also LIS and higher education research and development. The emphasis critical realism places on complexity has also led to it being promoted for its use when conducting interdisciplinary research due to the challenges associated with navigating the complex relationship between different fields and the complicated problems these types of studies are often attempting to address by combining knowledge from different disciplines (Danermark, 2002; Wikgren, 2006). In terms of this research it facilitated the bringing together of theories around organisations and institutions; the marketization and development of higher education and the future of professional work.

Altogether, approaching this study from a critical realist perspective, the implementation of a functional structure can be seen as an intervention since it represents a change from the 'conventional' approach of subject librarianship. Pawson (2006) describes an intervention as 'theory

incarnate', whereby it has an underlying theory regarding how it is going to bring about an improvement. The original study undertaken by the researcher (Hoodless & Pinfield, 2018), revealed the theory behind the implementation of functional restructures and the problems it was trying to overcome, along with the contrasting theory of why other senior managers were continuing with subject-based structures. Significantly, the research also highlighted how it was acknowledged amongst senior managers that choice of organisational structure for academic libraries was contingent on the institutional context and as a result a variety of different structures were emerging. The approach of this research was, therefore, to uncover the contextual factors and the underlying mechanisms at work that were resulting in different organisational structures, along with the outcomes of these different structures when operating in different contexts. In critical realist terms, the research aimed to generate theories regarding "what works for whom in what circumstances and why, rather than what works" (Emmel et al., 2018, p. 11).

3.3 The mixed methods research approach

For this study, a mixed methods approach was adopted. In the inaugural issue of the *Journal of Mixed Methods Research*, Tashakkori and Creswell (2007) define mixed methods "as research in which the investigator collects and analyzes data, integrates the findings, and draws inferences using both qualitative and quantitative approaches or methods in a single study or a program of inquiry" (p.4). It has become increasingly recognised as the third major research paradigm, along with quantitative and qualitative research (Johnson & Onwuegbuzie, 2004). The key strengths of mixed methods research are argued to be that by combining qualitative and quantitative methods this not only offers a more complete account of a phenomenon, but balances out the inherent, and contrasting, weaknesses of each approach (Creswell & Plano Clark, 2011).

It has been identified that mixed methods research is not common, or widely discussed, in LIS research, with the term "mixed methods" rarely being used and sometimes used incorrectly to refer to multi-method studies that combine at least two research methods from within a single research paradigm (either qualitative or quantitative) (Fidel, 2008; Ma, 2012). Since these observations were made, there have been some notable studies that have significantly engaged with the mixed methods literature, such as an investigation into the data management practice of researchers conducted by Berman (2017) and a study of interlending and resource sharing in UK public libraries conducted by Wakeling et al. (2018). Mixed methods research is clearly growing in the field, with more methodological textbooks including a section on mixed methods; however, it is still not widely established. The LIS topics most likely to be investigated using a mixed methods study include searching, information retrieval and information seeking behaviour (Fidel, 2008). However, this current study has clear links with management and organisational research for which mixed methods has a much longer tradition, illustrated by the inclusion in Tashakkori and Teddlie's (2003) original *Handbook of mixed methods in social & behavioural research* of a chapter on the application of mixed methods in this discipline.

3.3.1 Critical realism and mixed methods research

Pragmatism is typically identified as the principal philosophical position in which mixed methods can be grounded. Although not without its problems, it overcomes the inherent issue of the apparent incompatibility of quantitative and qualitative research by abandoning the forced dichotomy between the two and focusing on choosing the methods that will best answer the research questions being asked (Biesta, 2010; Creswell & Plano Clark, 2011; Feilzer, 2010; Johnson & Onwuegbuzie, 2004; Morgan, 2007).

However, critical realism is becoming increasingly argued and accepted as a credible, alternative philosophical position for mixed methods research (Allmark & Machaczek, 2018; Hurrell, 2014; Lipscomb, 2008; Maxwell & Mittapalli, 2010; Modell, 2009). In many ways, the reasons relate to the pragmatic principle of choosing the most appropriate method, since it is a philosophical position that supports the approach that choices regarding methods "should depend on the nature of the object of study and what one wants to learn about it" (Sayer, 2000, p. 19).

Due to the focus on drawing out mechanisms and structures in-complex open systems, the in-depth investigation afforded by qualitative methods appears to be the obvious choice for critical realist research (Brown, A. & Roberts, 2014; Maxwell, 2012). Nevertheless, while not as widely used, particularly independently, quantitative methods are compatible with critical realism. Within the critical realist community it is generally acknowledged that use of quantitative methods can provide useful descriptive statistics to complement qualitative methods and draw out some of the 'demiregularities' (Brown, A. & Roberts, 2014; Hurrell, 2014). Sayer (1992), notably, expresses how quantitative methods can be used for taxonomic purposes, thereby making such methods relevant to this study, since one of the objectives of this research is to investigate trends in organisational structures, which will involve attempting to assign classifications to different academic library structures. Going beyond descriptive use of quantitative methods is more contested, although it has been argued to be compatible with critical realism (Brown, A. & Roberts, 2014). Altogether, the researcher agrees with Edwards et al. (2014) that "as long as one is sensitive to context and mechanisms, and also to the assumptions of specific techniques, CR can use quantitative methods" (p. 324). Altogether, rather than being tied to particular methods, critical realism is "very much more interested in how insights, which sometimes arise from investigations, add to a pool of theory" (Emmel et al., 2018, p. 4).

3.3.2 An exploratory, sequential mixed methods study

Creswell and Plano Clark (2011) identify six distinct research designs for mixed methods studies, however it was decided that this research suited an exploratory, sequential mixed methods research design, which consists of two distinct phases: a primary qualitative strand to explore the research questions, followed by a quantitative strand to enrich and extend the findings. It has been argued that a critical realist approach to mixed methods generally suits an explanatory, sequential mixed methods design, whereby quantitative research methods are used to identify patterns and trends before qualitative methods are employed to uncover the mechanisms causing these trends (Zachariadis et al., 2013). This is because in critical realism generalisations, typically associated with exploratory mixed methods designs, are not considered to be meaningful in complex, open social systems (Zachariadis et al., 2013). However, it has been noted that while critical realists reject the ability identify causal regularities to predict outcomes, they do aim to make theoretical generalisations regarding mechanisms (Brown, A. & Roberts, 2014; O'Mahoney & Vincent, 2014). In addition, when it comes to methodology, critical realists can be flexible and creative in their approach and need to build research designs that are suitable for the aims and objectives of their research (Ackroyd & Karlsson, 2014; Emmel et al., 2018; Sayer, 2000). Accordingly, for this research an explanatory, sequential mixed methods research design was unsuitable since not enough was initially known about the dimensions and outcomes of the phenomenon being studied.

The aim of this study was to assess the relationship between organisational structural changes and the transformation of the academic library, with a particular emphasis on exploring and explaining how functional teams are being used in university libraries in comparison to subjectbased teams to provide teaching, learning and research support to users. With this in mind, there has been little research carried out around this phenomenon. The majority of the literature focuses on describing individual restructures around functional teams with little critical examination of processes and outcomes. In addition, Hoodless & Pinfield (2018) investigated the reasons why some

senior library managers were choosing to undergo functional restructures (or not choosing to); this is only one aspect of the complex phenomenon this research is investigating. In addition, there was no comprehensive secondary data set available to analyse for patterns and trends in the organisational structures of academic libraries and potential outcomes, which can often be the starting point for critical realist explanatory mixed methods studies (Hurrell, 2014). Consequently, if the researcher had begun with the quantitative phase, significant dimensions of the phenomenon would inevitably have been missed during the survey phase of the research. Therefore, an exploratory, sequential design was used for the study because it is ideal for "exploring a phenomenon in depth and measuring the prevalence of its dimensions" (Creswell & Plano Clark, 2011, p. 87). However, due to the nature of critical realism and the in-depth investigation required to identify the complex and contextual mechanisms related to the phenomenon, the study was weighted towards qualitative elements, with the survey stage of the research also collecting qualitative, as well as quantitative data.

While Creswell and Plano Clark (2011) identify one of the main reason for undertaking a mixed methods study as being able to generalise the qualitative findings, Greene et al. (1989) and Bryman (2006) recognise that mixed methods studies can have more than this one purpose, some of which may emerge as the research progresses. Greene et al. (1989) identify five potential reasons for undertaking a mixed methods study; triangulation, complementarity, development, initiation, and expansion, while Bryman (2006) created a more detailed list of sixteen potential reasons. Using these as a guide, the purpose of this mixed methods study included development, since the results of the qualitative phase were used to develop the survey instrument, but also elements of complementarity, expansion and completeness. Therefore, in this exploratory, sequential mixed methods design, whilst the quantitative strand was used to an extent to test some of the mechanisms identified in the initial qualitative strand, the main purpose was to expand and enhance the initial findings in order to obtain a more comprehensive account of the potential impact of choice of organisational structure on academic libraries. This is in line with the critical realist

approach being taken. Rather than focusing on confirming the findings of the qualitative phases, the quantitative phase was also used to generate divergent insights in order to more fully understand the complexity of the situation (Maxwell, 2012). This aligns with the critical realist approach being taken. As stated by Kessler & Bach (2014), an initial qualitative phase in a critical realist study can be used to provide "an opportunity to sharpen quantitative techniques seeking to further expose patterned similarities and differences, while providing a reservoir of material which might subsequently be used to explain these patterns" (p. 184).

Following the exploratory, sequential mixed methods approach, the primary qualitative strand of this research consisted of a multiple, comparative case study based on interviews, focus groups and document analysis, with the case studies being made up of academic libraries with various organisational structures along the functional-subject spectrum. This stage would focus on exploring how different organisational structures were manifesting, what potential impacts were occurring and uncovering the underlying mechanisms at work that were influencing the choice of organisational structure and the subsequent outcomes.

After this primary qualitative strand of the research and the subsequent analysis, two questionnaires were developed from the findings of the qualitative strand. The first was sent out to the Head of Service of every university library in the UK asking for one to be filled out per institution and the second was aimed at professional library staff working in front-facing academic services roles in university libraries within the UK. Although, it was decided that the results from the Professional Library Staff questionnaire would ultimately not be used in the analysis in this thesis due to a low response rate. The aim of this quantitative stage was to be able to test and expand on the results from the case studies in order to establish wider patterns amongst academic libraries in the UK. However, in line with critical realism, contextual information was also collected through qualitative, open-ended questions in the questionnaire.

The final phase of the research was concerned with integrating the findings from both the qualitative and quantitative strands of the research. This involved using the results of the qualitative strand, along with the qualitative, contextual data collected in the Library Director's questionnaire, to explain the overall patterns and trends coming out of the quantitative strand. This led to further refinement of the insights coming from the initial case study research by looking at where the quantitative data corroborated, but also diverted, from the case study results and using the qualitative data to try to explain these similarities and differences, in order to more fully answer the research questions. Figure 3.2 illustrates the overall research design.

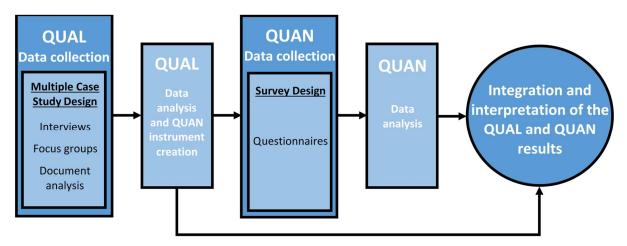


Figure 3.2: Diagram illustrating the sequential exploratory mixed methods design of the research

3.4 The advisory group

It was the intention of the researcher from the start for the results of this research to be of interest to professionals and impact upon professional practice. While it is recognised in critical realism that the complexity of contextual factors make positivist, prescriptive recommendations impossible, the aim is often to improve decision making by provide heavily contextualised knowledge and advice regarding the potential mechanisms, structures and tendencies at work (Ackroyd & Karlsson, 2014; Astbury, 2018; Tilley, 2018). Practitioners can then consider and draw upon this advice when implementing changes in their individual, ever-changing situations (Ackroyd & Karlsson, 2014; Astbury, 2018; Tilley, 2018). Therefore, prior to beginning the initial qualitative stage of this research, an advisory group was established consisting of three prominent senior professionals working within the academic library community. Individuals were identified and then contacted via email and asked to be part of the advisory group. The emails were sent out by the researcher's primary supervisor on behalf of the researcher, with an attached document from the researcher providing information regarding the research project and the remit of the advisory group, a copy of which is provided in Appendix A.

All three individuals that were approached agreed to be part of the advisory group, and subsequently provided email consent to be named. The final group consisted of:

- John Cox, University Librarian at the National University of Ireland
- Dr Judith Keene, University Librarian at the University of Worcester and Chair of the SCONUL Transformation Strategy Group
- David Prosser, Executive Director of RLUK

At various points throughout the research project, the advisory group were consulted to advise on the direction and co-ordination of the research, this included advising on the development of the research aims and objectives, the questions used in the interview and focus group schedules and the design of the survey instruments.

3.5 Qualitative phase

3.5.1 The multiple, comparative case study

As the author of one of the leading texts on case study research, Yin (2018) defines a case study as "an empirical method that investigates a contemporary phenomenon (the "case") in depth and within its real-world context, especially when the boundaries between phenomenon and context may not be clearly evident" (p. 15). It has been demonstrated how this blurring of phenomenon and context is inherent to this research project, and, therefore, case study research was a highly appropriate method for the initial qualitative strand of this study. A case study design provides a suitable context to answer the research questions, since it "seeks to identify and describe before trying to analyse and theorize...thus it can achieve a rich description of a phenomenon" (Stark & Torrance, 2005, p. 33). This rich description and in-depth perspective afforded by case studies was necessary for this research in order to be able to effectively investigate and disentangle the complex, interdependent factors associated with organisational structure, which are exemplified in Peters and Waterman Jr.'s (1982) McKinsey 7S model.

Specifically, this research took the form of a multiple case study, since this improves theory building and allows for comparisons to be made (Bryman, 2016). In addition, this multiple case study approach was exploratory in nature, since, as outlined from a critical realist perspective by Vincent and Wapshott (2014):

"the goal is to discover the consequences, at a specific level, of a specific organizational development...The key point is that the researcher is or becomes aware of a change that has occurred or is occurring with the case study being undertaken to see what happens as a result of the change" (p. 156).

Therefore, using an exploratory, multiple, comparative case study as the initial stage of this mixed methods study allowed the researcher to investigate the contextual factors at play in choice of organisational structure and what potential consequences the various choices of organisational structure that fall along the functional vs subject spectrum can potentially have on academic libraries and librarians.

In Yin's (2018) book *Case Study Research and Applications: Design and Methods*, amendments have been made from previous editions to include more discussion around the use of case studies in mixed methods research, in order to recognise that the occurrence of such combined studies is increasing. However, the examination of the use of case studies in mixed methods research is limited mostly to embedded case studies where qualitative and quantitative data are collected from different sub-units within the case(s). There is acknowledgement that case studies can also be used as a strand of a larger mixed methods study, however, the discussion centres on explanatory case studies. Yet, despite this narrow focus, it does demonstrate that case studies can be, and increasingly are, used in mixed methods studies in different ways.

In addition, case studies, including comparative case studies, are argued to be highly compatible with the critical realist approach guiding this research and are often adopted in such research design, particularly when investigating complex organisations and relationships (Ackroyd, 2009; Ackroyd & Karlsson, 2014; Easton, 2010; Kessler & Bach, 2014; Vincent & Wapshott, 2014; Wynn Jr & Williams, 2012). Case studies are also credited with much more value within critical realism than is often attributed to them, predominantly by positivists who criticise case studies for lacking the ability to make generalisations (Ackroyd & Karlsson, 2014; Easton, 2010). This is because the focus of critical realism is on explaining the mechanisms behind a particular outcome, rather than making future predictions based on generalisations. Therefore, case studies allow a phenomenon to be studied holistically and in-depth in order to draw out the causal mechanisms at

play in a particular context and establish why something has happened (Ackroyd & Karlsson, 2014; Easton, 2010; Wynn Jr & Williams, 2012).

As argued by Vincent and Wapshott (2014), critical realist case studies, therefore, go beyond the constructivist approach to case studies exemplified by Stake (1995), which focus on investigating the subjective interpretation of a phenomenon by the actors involved, and the empiricist approach exemplified by Yin (2018), which equate cases to experiments in order to make predictions based on findings. Whilst they acknowledge similarities between the critical realist approach to case studies and the constructivist and empiricist approaches, they argue both of these approaches do not move beyond description of the data to deeper levels of analysis of causal mechanisms. This is important in critical realism since "mechanisms may not be obvious or explicit within the case itself and must be worked out theoretically from a broader analysis of the setting, often through comparison" (Vincent & Wapshott, 2014, p. 150). Kessler and Bach (2014) argue that this ability to compare and draw out "cross-cutting patterns or demi-regularities" (p.172) is the true value of comparative, multiple case studies for a critical realist approach. They acknowledge that a single critical realist case study runs the risk of focusing too much on contextual factors and results in conclusions being irrelevant beyond the individual case study. Therefore, a multiple, comparative case study can "balance the lure of context, which recognizes the influence of specific situational factors, with a broader perspective, acknowledging and seeking to locate wider patterns and generative mechanisms" (Kessler & Bach, 2014, p. 169).

In this study, the initial, exploratory strand of the research consisted of a multiple, comparative case study of six academic libraries in the UK, with the sample being made up of libraries with a wide range of organisational structures along the subject-functional spectrum. This number of cases falls with Eisenhardt's (1989) judgement that between four and ten cases usually provide enough data in order to allow for theory development, but not too much as overwhelm and hinder analysis, and also allows "theoretical saturation" to be reached (p.545).

3.5.2 Case selection and negotiating access

When choosing the cases for the multiple case study strand of the research, Yin (2018) argues that sampling logic cannot be used since the small number of cases chosen cannot not adequately represent the large number of potentially relevant contextual variables and the results of case studies, therefore, cannot be generalised and sampling logic is not appropriate. Yin (2018) advocates for the use of "replication logic" instead, equating cases to experiments where cases are chosen because they either "predict similar results (a *literal replication*)" or "predict contrasting results but for anticipatable reasons (a *theoretical replication*)" (p.55). However, critical realists disagree with Yin's comparison of cases with experiments, since they argue that there are usually too many differing contextual factors at play to be able to select cases where the only difference between them is the variable being studied (Ackroyd & Karlsson, 2014; Kessler & Bach, 2014). This was undoubtedly true when selecting cases for this research whereby it would be impossible to select academic libraries that were identical albeit for their organisational structure. In fact, as previously discussed, it is these differing contextual factors which critical realism research is interested in.

As an alternative to Yin's (2018) positivist replication logic, Kessler and Bach (2014), refine Yin's case selection technique to fit the critical realist perspective by making the distinction between "selecting-for-difference and selecting-for-similarity" (p.173). Therefore, while recognising that Yin's (2018) assertion that a purposeful selection, rather than sample, is undertaken, in line with the recommendations of Kessler and Bach (2014), a selecting-for-difference approach was used when choosing the case study sites for this research, whereby cases were selected because the researcher anticipated differences in findings based on the type of organisational structure adopted.

A previous study carried out by the researchers had concluded that university library structures often consisted of a balance between functional and subject-based elements and could be seem as existing along a spectrum (Hoodless & Pinfield, 2018). Therefore, also in line with one of the

rationale's outlined by Eisenhardt (1989), cases were chosen because they "fill theoretical categories and provide examples of polar types" (p.537), and, hence, fall at different points along the functional-subject-based scale. It was also decided that in order to be able to make comparisons across different types of university and further investigate contextual factors, cases would consist of academic libraries from both research-intensive and teaching led universities. Altogether, cases were selected that corresponded to each of the categories of academic library illustrated below (Table 3.1):

	Predominantly subject-based structure	Functional structure with a formal subject element	Functional structure with no formal subject element
Pre-92 University	Case Study A	Case Study C	Case Study E
Post-92 University	Case Study B	Case Study D	Case Study F

Table 3.1: Case study categories

In order for cross-case comparisons to be made, after consideration, it was further decided to exclude smaller institutions with overall student enrolment numbers of less than 15,000, as well as institutions with a specialised subject profile. In addition, for practical reasons, case selection was limited to England, since data collection involved the researcher travelling to the case study sites, with the quantitative stage of the mixed methods study being used to expand the scope of the research to include Wales, Scotland and Northern Ireland.

Having identified the categories and scope of the cases, in order to select suitable academic libraries to approach to participate, the researcher gathered information regarding all the universities in the UK. This information was recorded in an Excel spreadsheet and included, where possible, the name of the university, type of university, number of enrolments, apparent organisational structure of the library and name of the Library Director. This was collated from information that could be found from university websites, journal articles and conference presentations, as well as the general knowledge of the researcher and their supervisors obtained from professional discussions. Using this Excel spreadsheet, institutions were selected that corresponded to the six cases study categories outlined in Table 3.1. Since there was a chance the first choice for each case would not agree to participate, an alternative choice was also identified for each case category. The advisory group were consulted regarding the development of the case study categories and they provided suggestions of institutions to approach, however, in order to maintain the anonymity and confidentiality of the case study sites, the final selection was not disclosed.

This multiple case study approach inevitably required buy in and permission to be gained from each case, which brings its own practical challenges, and requires trust and rapport to be established (Pickard, 2013). Following the selection of the case study sites, the Library Directors for each of the first choices were contacted via email. Since information regarding the organisational structure of the libraries had often been inferred from information found on university websites, the email invitation asked for confirmation that the Head of Library Service agreed with the way the organisational structure of their library had been categorised. A copy of the email invitation can be found in Appendix B. In an effort to increasing willingness to participate, again, the invitations were sent out via email by the researcher's primary supervisor on their behalf, due to their prominence within the professional community. In addition, to encourage participation an offer was made to share the results of the research with participating cases. Notably, the Library directors at the first choices for all six case study sites granted permission for their libraries and staff to take part in the study, indicating the supportive nature of the professional community, as well as the interest of the professional community in this research area.

3.5.3 Data collection methods

At each of the case study sites, the data collection methods consisted of semi-structured interviews, focus groups and documents. Semi-structured interviews were conducted with staff at various professional levels within the organisational structure, which included senior library managers, line managers and professional staff working in outward-facing academic services roles. Interviews were used because from a critical realist perspective they aim "to access the interviewee's understanding of particular organizational phenomenon that is seen to exist outside of the person and then compare their account with other with other interviewees." (Cassell, 2009, p. 505), with the organisational phenomenon in the case of this research being the increasing use of functional structures in academic libraries. Semi-structured interviews were deemed suitable for this study because there is little in the literature on this research topic; therefore, if an avenue of enquiry appeared during an interview that the researcher had previously not considered, it could be explored in more detail without the constraint of a rigid set of questions (Bryman, 2016; Pickard, 2013). Yet, semi-structured interviews were also more suitable for this research than completely unstructured interviews because some structure was required to allow for internal comparison between each case study's participants, but also ensure comparisons could be made across the multiple case study sites (Bryman, 2016).

Therefore, an interview schedule was designed, which was informed by the research questions, as well as themes that had emerged from both the literature review and the researcher's original study done for their Master's dissertation. The interview schedule was structured around questions relating to the following main areas:

• Opening questions: introductory questions inquiring for background information around the participants and factual information on their current job roles.

- The current organisation structure: questions aimed at gathering descriptive information on their library's current organisational structure and any recent changes or restructures that had happened, along with experiences and opinions of these.
- General questions on organisational structures: questions aimed at gathering opinions regarding how organisational structures are being used by academic libraries across the sector.
- Subject vs functional structures: questions aimed at eliciting opinions regarding the subject vs. functional structures debate in academic libraries
- Impact on librarianship: questions aimed at generating opinions from participants regarding how choice of organisational structure might relate to changes occurring to the profession of librarianship.
- Closing question: a final question that fits with the exploratory nature of the research and allows participants to discuss any relevant issues the researcher did not anticipate when designing the interview schedule.

In addition to interviews, it was decided that a focus group would also be conducted at each of the case study sites in order to gain a wider variety of perspectives of the phenomenon being studied but in a shorter amount of time than would be required to conduct individual interviews. As stated by Krueger and Casey (2015), focus groups are useful when "You are looking for the range of opinions, perceptions, ideas, or feelings that people have about something " (p.21), and focus groups can be used to "provide insights on organizational concerns and issues" (p.11).

It is recommended that focus groups consist of a group of 'homogeneous' people – that is they have something in common with each other that is relevant to the research - and that they also feel equal to each other in order to create an inclusive environment where participants feel comfortable voicing their opinions (Acocella, 2012; Krueger & Casey, 2015). Therefore, the focus groups were homogeneous in that all of the participants were in academic services roles. In addition, line managers and senior library managers did not participate in the focus groups, since it was felt that staff may be reluctant to express their opinions in front of managers. Although, the focus groups did include participants in different roles within the case study libraries, particularly at the case studies with functional structures. However, this proved to add a valuable dimension to the research since it highlighted the relationship and dynamics between different roles in the library that might otherwise have been missed.

When developing the semi-structured focus group schedule, the general structure used for the interview schedule was used to aid comparison. However, following the opening question where participants introduced themselves, an activity was included where participants were given some time to list the three skills/behaviours they felt were most important for their current role. It is suggested that activities such as this are used at the start of a focus group so that everyone is brought into the discussion from the start and participants are given the change to begin to think about later key issues that will be discussed (Colucci, 2007; Krueger & Casey, 2015). The rest of the questions then consisted of the key questions from the interview schedule. Since some interviews were carried out before the focus groups, some of these key questions were identified after reflecting on which questions were eliciting the most salient answers.

During the development of the interview and focus group schedules, the advisory group were consulted and they offered comments and suggestions on various drafts of the questions, along with some minor changes to the wording of some questions, their involvement in the process led to the inclusion of the questions relating to the following:

- Length of time the participants had been in their roles
- The impact of the position of the library within the overall university's organisational structure and the library's reporting lines within the institution
- Feedback and reaction of stakeholders outside of the library (e.g. academic staff and library leadership) regarding any changes to the library's organisational structure

In addition, the advisory group influenced the decision to have two versions of the interview schedule – one for senior library managers and one for non-managerial library staff. It was suggested that library staff not involved in wider university decision making would not have the insight to be able to address confidently the question regarding the library's position within the overall university's structure (questions 8 on the interview schedule). The final interview and focus group schedules, including opening comments and question prompts used by the facilitator, can be found in Appendix C.

Along with interviews and focus groups, documents were also collected from each case study site, although these were not the main focus of the data collection and subsequent analysis. The inclusion of documents is valuable in case study research since they can be used as a means of 'triangulation' to corroborate the findings of the other data collection methods, and also provide supplementary material that adds further context to the research (Bowen, 2009). As stated by Coffey (2013), documents "are a vital way In which organisations constitute 'reality'" (p.369), which from a critical realist perspective may not be the 'truth' but adds an important contextual dimension when attempting to establish the mechanisms underlying the phenomenon being researched. Consequently, the researcher requested organisational structure charts and job descriptions for all of the outward-facing, professional academic services roles from each of the case studies. These were used not just to identify individuals to approach to participate in the interviews and focus groups, but also compare with how interview and focus group participants describe their library's structure and their job roles. In addition, other documents were offered and provided by senior managers, which included strategy documents, mission statements, restructuring documents and library annual reports. Whilst it was not possible to obtain exactly the same documents for each case study, they provided additional contextual information, which, as previously discussed, is important in critical realist research.

3.5.4 Data collection at the case study sites

Data collection for the qualitative phase of the research took place between February and August 2019. The data collection at each case study site began with the researcher travelling to the sites to interview the Head of the Library service and/or another senior library manager who had responsibility for the outward-facing academic services element of the library's structure. Whilst there the researcher took the opportunity to also further discuss with these senior managers the nature of the research, obtain the relevant organisational documents, and agree an approach for selecting and recruiting participants for the interviews and focus groups.

Due to the nature of the research, when selecting participants the aim was to gather a wide range of positions and perspectives on the phenomenon being studied and, therefore, purposive sampling was used to identify the library staff to be interviewed, specifically, 'maximum variation sampling', as described by Palys (2008). Hence, the researcher sought to recruit professional library staff involved in outward-facing academic services to participate who were at various levels, held differing job titles and roles, and have been at the organisation for varying lengths of time. As discussed by Vincent and Wapshott (2014), this diversity of participants is important when approaching case study research from a critical realist perspective. In addition, however, an attempt was also made to, wherever possible, include a similar sample of participants across the 6 different case study sites in order to be able "to work out how similar mechanisms playout in different settings" (Vincent & Wapshott, 2014, p. 161).

Prior to meeting with the senior library managers, the researcher had requested a copy of each library's organisational structure chart and from these identified potential individuals and members of teams they wanted to approach to participate in the interviews. Then during the initial meeting with the senior managers, the participant selection strategy was explained along with the researcher's preliminary suggestions on who to approach, and in consultation with the senior managers, the final selection of staff to approach to participate in the interviews was agreed. The

involvement of senior library managers in the selection of participants for the interviews proved to be an invaluable approach to take since they were privy to information regarding their staff and organisational structure that the researcher, as an outsider, was unaware of. This included information such as the specific responsibilities, length of service, qualifications and career background of their staff, and they were, therefore, able to suggest a wide range of participants, as well as those with experiences most likely to be relevant to the research. Consequently, senior library managers suggested some participants the researcher had not originally considered approaching. This included library staff at a professional level who did not hold a library-related qualification and staff in roles where it was not clear from the job title that they were in outwardfacing academic services roles (most notably in some collection roles that were engagementfocused, rather than back-office technical roles). In one instance, at Case Study A, a participant themselves recommended an individual to interview. The addition of these participants in the interviews proved to be valuable to the research by expanding the range of perspectives gathered on the phenomenon.

Unfortunately, one limitation of this approach to selecting participants for the interviews was that it could lead to bias, with senior managers suggesting participants who they felt had a positive attitude towards the library's current structure. In an attempt to counteract this potential bias, when recruiting for the focus groups, any member of library staff in a professional library role, who was not a manager or had previously been interviewed, was invited to participate, although this brought with it the limitation of participants unavoidably self-selecting. There is also the risk that in a focus group a 'dominant voice' is established and participants with opinions that are in conflict to this viewpoint could be reluctant to voice views or they could be ignored by the rest of the group (Smithson, 2000). During the focus groups, the researcher attempted bring in people who were not participating into the discussion, but this is still a potential limitation of focus groups. Although, the combined use of interviews and focus groups in this research was an attempt to counteract some of the limitations of each approach.

Once identified, individuals were contacted by a senior library manager or their PA and provided with information about the study and an invitation to participate; since it was believed they would be more likely to respond positively knowing the research was endorsed by library leadership. It was the intention of the researcher to have at least one staff member from each relevant role and/or team represented in either the interviews or focus groups, and while most individuals approached agreed to take part, it should be noted that in some cases this was not possible due to inability to recruit. For example, at Case Study F the only member of professional staff in the engagement-type role was unable to participate. However, altogether, a wide range of individuals were recruited, with 6-7 interviews and 1 focus group conducted at each case study site, with an overall total of 41 interviews and focus groups undertaken. Appendix D provides more information regarding the interviews and focus groups conducted at each case study site, including the type of job roles of the participants and whether they had a library-related qualification, in order to illustrate the wide range of staff who participated and shared their experiences and perspectives. It also includes a breakdown of the organisational documents obtained for each case study site, which were either provided by the senior managers or found on the institution's website.

In order to avoid inconveniencing participants, all interviews and focus groups took place in person at the case study sites during the participants' working hours. At most of the case studies the timetable of interviews and focus groups and room bookings was arranged internally on behalf on the researcher to accommodate work patterns, with only a couple of interviews from Case Study E being arranged directly between the researchers and the participants, with the participants themselves making the room bookings. Prior to the interviews and focus groups, all participants were emailed copies of the Participant Information Sheet and the Consent Form, both of which can be found in Appendix E, and provided with the researcher's contact details in case they had any questions regarding the research. The participants were also provided with a copy of the interview schedule beforehand to allow participants the time and opportunity to reflect on the questions since they may not have previously considered in-depth the issues being discussed.

For each case study, the researcher made between 3 and 5 visits to the institutions to undertake data collection. At the start of each interview and focus group, the researcher asked if the participants had any questions, checked they were happy to take part and then they were requested to sign a copy of the Consent Form (Appendix E.2). All of the interviews and focus groups were recorded on two separate digital recording devices so they could be later transcribed. Interviews lasted between 26 minutes and 1 hour 31 minutes and focus groups lasted between 1 hour 5 minutes and 1 hour 33 minutes, with between 7 hours 42 minutes and 8 hours 36 minutes of audio data collected for each case study, and 48 hours 49 minutes collected overall. In addition, following each interview and focus group, the researcher made reflective notes on each data collection exercise in a research diary, noting down how they went, any relevant discussions that where not audio recorded and any initial thoughts on potential codes and key themes or issues discussed.

3.5.5 Data analysis

During the qualitative phase, the data was subjected to a thematic analysis, which is a widely used qualitative data analysis method and was appropriate for this research in order to draw out key themes related to the research questions (Braun & Clarke, 2006; Bryman, 2016). The qualitative analysis techniques is widely used for analysing data in transcripts, but Coffey (2013) states that it is also appropriate when analysing documents, especially if the purpose of analysing the documents is to provide contextual information, as in the case of this research. Thematic analysis involves coding the data, which is a way of "indexing or categorizing the text in order to establish a framework of thematic ideas about it" (Gibbs, 2018, p. 54). Coding of qualitative data is consistent with critical realism, as it begins with the identification of the 'tendencies' or 'demi-regularities' in the data collected (Fletcher, 2017). Astbury (2018) describes the need for a "pincer movement" (p.74) between an upwards inductive analysis of the data and a downwards application of existing theories for critical realist coding, with Fletcher (2017) supporting this assessment that critical realism

promotes engagement with existing theories, rather than a purely inductive approach to coding. Therefore, the researcher adopted a thematic analysis of the data whereby the codes and themes emerged from the data but were also influenced and shaped by theories and concepts that had been identified during the literature review, for example, the marketization of higher education.

However, the strategy of thematic coding results in data being segmented and categorised for analysis (Ayres, 2008). This 'categorizing' approach to analysis, Maxwell (2012) argues, leads to the neglect of the significant contextual relationships at play, which critical realism is concerned with. It is also specifically important in multiple case study research that the context for each case study is maintained (Yin, 2018). Maxwell (2012), therefore, advocates moving between 'categorizing' and 'connecting' approaches of data analysis, seeing them "as complementary and mutually supporting, each having its own strengths and limitations" (p. 125), with themes emerging from the data having the ability to be used to re-examine contextual relationships. Therefore, the analysis of the qualitative data broadly followed the stages of thematic analysis set out by Braun and Clarke (2006), as detailed below, with some additional processes included to preserve the contextual features and narrative of each case study, which will also be discussed.

Stage 1: Familiarisation with the data

The researcher transcribed all of the audio recordings in full in order, which resulted in over 470,000 words of transcription in total. Although this was time-consuming, it is often recommended that the researcher undertakes this themselves in order to become familiarised with the data (Bazeley, 2013; Braun & Clarke, 2006; Krueger & Casey, 2015), and in this case the researcher found this process to be a valuable stage in analysing the data. Along with aiding familiarisation with the data, while transcribing, the researcher was also able to note down some initial codes and themes that were emerging from the data.

In addition, it is recognised that when transcribing some non-verbal, tonal and emotional elements can be lost (Bazeley, 2013), therefore, by carrying out the transcribing themselves, the

researcher was able to note down these elements. This was particularly useful for the focus groups to ensure any underlying tensions or agreements between participants were recorded, but also that any show of emotion in both interviews and focus groups was not lost, which were often present when participants were discussing issues such as their professional identity and experiences of restructuring exercises. Since the researcher attempted to carry out the transcriptions as soon as possible after the interviews and focus groups, this made it easier to remember and record such instances, and also afforded a valuable opportunity for the researcher to reflect on how the interviews and focus groups are going and make improvements.

Stage 2: Generating initial codes

All of the interview and focus group transcriptions, along with the organisational documents, were uploaded into NVivo in order to carry out coding and analysis. NVivo was used because it allowed for the large amount of qualitative data that had been generated to be organised more quickly and flexibly, as well as providing the functionality to easily search, reorganise and retrieve the complex, interconnected thematic codes that were generated; thereby, increasing the reliability and trustworthiness of the research overall (Ayres, 2008; Pickard, 2013). Due to the case study nature of this strand of the research overall (Ayres, 2008; Pickard, 2013). Due to the case study when coding and facilitated both within-case and cross-case analysis. As outlined by Jackson and Bazeley (2019), a Case can be created in NVivo that "pertains to a definable unit of analysis (e.g. a *Person*, a *Place*, a *Policy*)" (p.137). Therefore, a Case was created to hold all the data (i.e. interview transcripts, focus group transcript and organisational documents) for each case study site. Each was Case was then assigned a Value for each of the Attributes of 'Organisational structure' and 'Type of Institution', as shown in the screenshot in Figure 3.3. This allowed for later comparisons of codes and themes to be made not just between different case study sites, but also between Cases with different Attribute Values.

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Figure 3.3: Setup of Cases in NVivo for case study sites

Significantly, Cases can be used for more than just case studies and there can be more than one type of Case in a single NVivo project (Jackson & Bazeley, 2019). Therefore, each participant was also setup as a Case. For interview participants, the interview transcript simply made up the data assigned to that Case. However, for focus group participants, the transcripts were formatted to allow NVivo to Auto Code each participant's responses to a Case. Each Case was then assigned the relevant code, as well as the demographic characteristics of each participant that are recorded in Appendix D. Therefore, each participant's Case was assigned a Value for each of the Attributes of 'Case Study', 'Organisational Structure', 'Role', 'Library Qualification' and 'Management', as shown in the screenshot in Figure 3.4. Again, this allowed for later comparisons of codes and themes to be made using NVivo, for example, between participants with different roles. Overall, NVivo was used because it supported not just the storing of data and the management of codes, but also complex, in-depth analysis of the data.

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Figure 3.4: Setup of participant Cases in NVivo

Once all of the data was uploaded into NVivo and the Cases were established, the researcher carried out the first cycle of coding in NVivo. Saldaña (2016) defines a code as "most often a word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data" (p. 4). The researcher, therefore, began by systematically reading each transcript and organisational document assigning codes to the text. The data was coded one case study at a time in order to be mindful of the context of each when developing the codes. Interview and focus group transcripts for each case study were coded first, with the codes generated from this applied to the documents to assist with comparison (Bowen, 2009). Due to the amount of data to be coded, codes were applied to segments of the data, rather than coding line by line. The codes both emerged from the data and were informed by concepts and theories identified in the literature review. Saldaña (2016) identifies a range of coding methods that can be applied, and notes that coding methods adopted need to align with the aims and objectives of the research. Using these categories, this research followed an eclectic combination of the following in order to capture complexity of the phenomenon being studied:

- Initial coding codes which were revisited and refined during the second cycle
- Descriptive coding codes indicating topic being discussed or written about in the documents – e.g. "Hybrid structures" and "Academic skills"
- Concept coding sometimes these had been identified in the literature review, but not always – e.g. "Marketisation" and "Organisational culture"
- Emotion coding used in order to understand participants experiences of different organisation structures and roles – e.g. "Enjoyment"
- Versus coding used to identify conflicts e.g. "Academic vs student focused" and "Quality vs. quantity"
- Evaluation coding judgements participants made e.g. "Positive" or "Negative"
- Process coding codes denoting an action or activity, usually to do with the restructuring process – e.g. "Reviewing structures"
- In-Vivo coding some codes were named using participants own words (these are indicted in the codebook in Appendix F by the use of quotation marks) – e.g. "No one size fits all" and "Proper librarians"
- Simultaneous coding coding a segment of data with more than one code
- Sub-coding coding a smaller portion of a segment of coded data with another code

Following the recommendation of Jackson and Bazeley (2019), the researcher also included a code titled 'Key quotes', where "compelling, poignant, or typical" (p.107) references from the data were stored to aid with writing up the results. During this first cycle of coding, 223 codes were used in total and they were not grouped or placed in any hierarchies. A second cycle of coding was subsequently carried out where the researcher systematically read all the data again, a case study at a time. During this cycle of coding, the researcher checked they were satisfied with codes that had been assigned to the data and this resulted in the refining, combining, addition and removal of some codes. The researcher also began to 'Pattern coding', a second cycle coding method where related codes are grouped together (Saldaña, 2016). Significantly, it became clear during this second cycle of coding that the researcher's initial coding cycle had resulted in, what Saldaña (2016) terms, "code proliferation" and the number of codes did reduce during this coding cycle and they were further refined during the development of themes in the next stages of the analysis.

Throughout this initial stage of analysis, the researcher also used 'Memos' in NVivo to reflect on the coding choices and make notes on key analytical ideas that were emerging, as recommended by Saldaña (2016), with 'See Also Links' being used to start establishing patterns and connections in the data and between codes.

Stage 3: Searching for themes

In order to begin bringing the codes together into themes, mind maps were created in NVivo. This technique is recommended by Braun and Clark (2006) in order to visualise the relationship between codes and establish emerging themes and sub-themes. However, to ensure the contextual nature of the case study research was not lost within the thematic analysis, initially, a mind map was created for each of the case studies using the codes assigned to the data from each case study that related to their individual circumstances. Queries were performed on NVivo to show all the codes that were assigned to each case study to aid with the creation of these mind maps. This was an important stage in the analysis in order to identify themes that might be unique to particular cases, which is necessary in terms of the abductive analysis since it requires the identification of irregularities in order to investigate the reasons behind them (Tavory & Timmermans, 2014). These thematic maps for each case study also helped begin to make cross-case comparisons.

Once the mind maps for each case study were created, an overall thematic mind map was created, which brought in the themes that had emerged at each case study along with themes and codes that had developed through general discussion that had taken place in the interviews and focus groups regarding subject and functional structures. During this process of creating thematic mind maps, the codes were further refined.

Stage 4: Reviewing themes

Following the development of the thematic maps, the themes were reviewed against the codes and the contents to ensure they all fit together. Bazeley (2009) cautions against conducting a shallow thematic analysis that reports overall themes but does not take into account "divergent views, negative cases or outliers" (p.12) to challenge generalisations. This is clearly important to ensure that an analysis compatible with critical realist is carried out. Therefore, during this stage of the analysis when themes were being reviewed, following the recommendations of Bazeley (2009), comparisons were made using Matrix Coding Queries in NVivo in order to refine the themes and ensure a deeper level of analysis. Comparisons were made not just between the different case study sites, but also between participants with different Attribute Values, using the Cases that had previously been setup in NVivo. For example, Figure 3.5 shows a Matrix Coding Query for the code 'Freedom' against the type of role participants, allowing for comparisons to be made between how this topic was discussed by participants in different roles, since the related qualitative data can be in opened and reviewed by double-clicking on the cells.

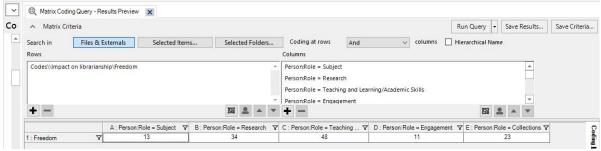


Figure 3.5: Example Matrix Coding Query

Stage 5: Refining and naming themes

In line with Braun and Clarke's (2006) guidance, in this stage each theme was further refined and described, with any sub-themes also being identified. The final codebook showing the overall established themes can be found in Appendix F.

Stage: 6: Writing the report

In order to maintain the holistic features of each case study, the write up of the results began with a summary of each case in the form of a vignette to provide description and contextualisation, as recommended by Bazeley (2013). These summaries of each case study can be found in Appendix G. Following this, the report was able to move onto the analysis of the themes both within and between the cases. As stated by Braun and Clarke (2006), "writing is an integral *part* of the analysis" (p.86), therefore, the researcher began writing before the final themes were established. Throughout the writing process, the data was continually interrogated using the Queries available in NVivo to test the associations that were being made during the analysis (Jackson & Bazeley, 2019). The 'Key quotes' code that had been created in NVivo also aided with writing up the results since a Query could be used to cross-reference this code with other codes to find optimal evidence to support the themes being discussed.

3.6 Quantitative phase

3.6.1 Survey Design

The subsequent quantitative stage of this mixed methods study consisted of a survey research design. Pickard (2013) discusses how there are two types of survey design; descriptive surveys that aim to describe a situation and establish trends and patterns, and exploratory surveys that aim to explore relationships between variables. Predominantly, the survey design for this second strand of the research is descriptive since the intention, in line with critical realism, is not to test out a hypothesis or establish cause and effect relationships. Instead, the aim is to establish how and to what extent some of the themes that emerged from the initial qualitative strand of the

research can be identified as trends that are developing across the academic library sector in the UK. The survey particularly addresses the first objective of this research, which is to explore trends in the use of functional and subject teams in the academic library sector in the UK, although it also further explores some of the themes that emerged in relation to the other research objectives. As stated by Saunders et al. (2019), descriptive surveys "enable you to identify and describe the variability in different phenomena' (p. 505), making them ideal for this study.

Pickard (2013) makes the distinction between a survey, which is the overall research method that encompasses data collection and analysis, and a questionnaire, which is a specific data collection technique, or survey instrument. Questionnaires are the most widely used data collection method for survey designs and can be administered as either structured interviews, also called researcher-completed questionnaires, or self-completion questionnaires (Bryman, 2016; Saunders et al., 2019). Both methods have their advantages and disadvantages; however, the decision was taken to use self-completion questionnaires in this strand of the research. These have the advantages that they are quicker to administer and more convenient for participants to complete, as well as removing the potential effect of the presence of the researcher on participants' responses (Bryman, 2016). Since the initial qualitative stage of the research had directly involved the researcher in the data collection, it was felt this stage would benefit from the removal of the researcher from the data collection to complement this disadvantage of the qualitative stage.

Therefore, two online questionnaires were created for the survey instruments in this second strand of the research; one aimed at Library Directors and the other at professional library staff. Although, due to the low responses rates from the Professional Library Staff questionnaire, only the data from the Library Directors' questionnaire was analysed and used in the findings of this research. Therefore, the following discussion will primarily focus on the Library Directors' questionnaire.

3.6.2 Survey instrument development

Both of the questionnaires were created using LimeSurvey software. It was decided that online questionnaires would be appropriate since all target participants worked in universities and would have been provided with work email addresses, and this would be the quickest and most efficient way to conduct the data collection. The questionnaires consisted of closed questions, including Likert scales, to allow for the data to be compared quantitatively, but also open questions to allow participants to expand on their answers and discuss the issues that are important to them concerning the phenomenon being researched (Pickard, 2013). These open questions were an important element of the questionnaires due to the critical realist nature of the study.

During the development of the questionnaires, the advisory group were again consulted and they provided comments and suggestions that guided the development of the questions. Along with some minor changes to the wording of some questions, their involvement in the process led to the inclusion of a glossary of key terms at the start of the questionnaires since some of the terminology used throughout the questionnaires could be interpreted in different ways. Therefore, the glossary was an attempt to clarify to participants how the researcher was defining these terms in relation to the research. The questionnaires were also pilot tested by the Library Director and a professional member of staff at a university in the UK. The feedback led to some further rewording questions to provide further clarification and gave an indication of how long it would take to complete each questionnaire. Overall, no major changes were made to the questionnaires following the pilot study and the responses from the Library Directors' survey collected during this piloting stage were combined with the data collected from the main questionnaires and used in the overall data analysis.

The final version of the Library Directors questionnaire contained 27 questions, which were grouped into eight sections. The development of the questionnaires provided the first point of integration between the qualitative and quantitative strands of the research, since many of the

themes that had emerged from the initial multiple case study were used to develop the questions (Creswell & Plano Clark, 2011; Fetters et al., 2013). The development of the questionnaires was also informed by the overall aims and objectives of the research. Table 3.2 provides information on each section of the Library Directors questionnaire, including how the questions in each relate to the themes that emerged from the qualitative strand of the research and overarching research objectives. The complete Library Directors' survey instrument can be found in Appendix H.

Questionnaire Section	Description of questions	Related themes/codes from the qualitative results	Related Research Objectives
Institutional Information (Q1-Q3)	This short section collected data regarding the parent institution of the participant, so that this information could be used make comparisons between different types of university. It was decided that participants would be required provide the name of their university. This was to ensure that only one questionnaire was returned from an institution and allowed the researcher to gather demographic information independently to avoid including more questions.	 Wider institutional context Centralisation 	Objective 1
Organisational structure of the library (Q4-Q11)	In this section, the data collected related to organisational structure of the participants' libraries, particularly the use of functional and subject elements within the structures. Most of these questions were category questions where participants could only select one answer (Saunders et al., 2019) to allow for trends and patterns to be analysed. Although, some open questions allowed for participants to provide extra information.	 Balancing functional and subject Hybrid structures 	Objective 1

Qualifications (Q12-Q13)	The questions in this section were again mainly category questions that collected data regarding whether or not the professional staff in different academic services roles (both subject and functional) within the library had professional library qualifications or not. The aim was to establish trends regarding other professionals working in these roles. Again, an open question allowed for participants to expand on their answers if they wanted to.	 Mixing professionals Professional identify 	Objective 4
Library Services and Responsibilities (Q14-Q16)	Five point Likert scale questions were used to collect data regarding the extent to which specific services, related to traditional library role, were being provided by the library and, in comparison, how important library directors perceived these services to be. Further category questions, as well as open questions were, used to collect data on how collection services are managed in participants' libraries. The aim of this section of questions was to investigate potential differences between different academic libraries regarding these services and library director opinions on importance of these services, as this could be effecting choice of organisational structures.	 Impact of Leadership Collections Tailored support vs generic support 	Objectives 2 & 3
Other Library Responsibilities (Q17-Q18)	In this section, category questions were used to investigate the services the libraries of the participating library directors were involved in delivering within their institution that went beyond traditional library services. This was to establish patterns in the expansion of the remit of a library and the choice of organisational structure. An open question was used to allow participants to indicate any other services the library was involved in that were not listed.	 Jurisdictional boundaries Expanding library remit 	Objectives 1 & 2
Restructures (Q19-Q23)	In this section, category questions were used to establish if and how the structures of academic libraries were changing, along with some open	 Formal restructures vs 	Objective 1

	question for participants to provide extra information. There was also a five point Likert scale question to assess the importance of different factors in decisions to change organisational structures.	incremental changes	
Challenges (Q24-Q25)	A five point Likert scale question was used in this section whereby participants were asked to rate the challenges they currently face when managing their library. This was to see if any patterns exist between the choice of organisational structure and the challenges library directors face or if there are common challenges. An additional open question again allowed for participants to discuss other challenges they currently face that may not have emerged in the qualitative research.	- Common challenges of structures	Objective 3
Final Comments (Q26-Q27)	These final two open questions were used to elicit participant views regarding the use of subject and functional structures in academic libraries and opinions on the potential impact of the COVID-19 pandemic on the use of these structures.	- Impact of Leadership	Objective 3

 Table 3.2: Survey sections mapped to related qualitative themes and research questions

3.6.3 Questionnaire distribution

The target population for the Library Directors' questionnaire were Library Director at any university in England that was listed on the Office for Students Register as having the right to use the title 'university' and had degree awarding powers². This included the individual member institutions

² <u>https://www.officeforstudents.org.uk/advice-and-guidance/the-register/the-ofs-register/#/</u>

of the University of London. Although, since this research focused on how the need to provide both support for students and researchers was changing the organisational structures of academic libraries, any university that did not have undergraduates, postgraduate taught and postgraduate research students were excluded. In addition, any university from Scotland, Wales and Northern Ireland that was listed in the Times Higher Education 2020 University Rankings³ was included in the target population. Altogether, the total population included the Library Directors at 140 institutions across the UK. Similarly, for the Professional Library Staff questionnaire, the target population was any member of staff working in an academic services role in the library, at a professional level, within these 140 institutions. Although, the total number this would be is unknown.

It was originally planned for the online questionnaires to be deployed in April 2020, however, due to the COVID-19 pandemic it was felt that the response rate would have been severely impacted if it had been run at this time. Consequently, the deployment of the questionnaires was postponed and opened on 15th July 2020. The Advisory Group had suggested using the SCONUL Directors mailing list to distribute the Library Directors' questionnaire. The SCONUL Executive Director was contacted for permission to do this and they circulated an email to the mailing list on the researcher's behalf, which can be found in Appendix I. This email not only advertised and provided a link to the Library Directors' questionnaire, but also provided a link to the Professional Library Staff questionnaire and requested for Library Directors to distribute this link and invitation to participant in the research to their staff working in academic services roles at a professional level. The researcher also circulated a similar email using the LIS-ARLG (CILIP's Academic & Research Libraries Group) and LIS-LINK (general library information) JISC mailing lists to advertise the

³ <u>https://www.timeshighereducation.com/world-university-rankings/2020/world-ranking#!/page/3/length/25/sort_by/rank/sort_order/asc/cols/stats</u>

Professional Library Staff questionnaire and provide a link for participants. In addition, links to both of the questionnaires were posted on Twitter.

The original closing date for both questionnaires was 7th August 2020, however, due to the timing being during the summer, when people were likely to be on holiday, and the ongoing uncertainty around COVID-19, the decision was taken to extend the data collection until 18th September 2020 to give potential participants sufficient opportunity to complete the questionnaires. During this time, along with reminders posted on the mailing lists, two email reminders were sent directly to Library Directors whose email address could be found online. The first was sent on the 30th July 2020 by the researcher and the second on the 14th September 2020.

3.6.4 Data analysis

Of the 140 institutions that were included in the target population, 53 Library Directors' questionnaires were completed. When the data from the piloted Library Director's questionnaire was included, this brought the total to 54, which is a response rate of 39%. In comparison, only 68 completed the Professional Library Staff questionnaire, and whilst the total target population is unknown, this is clearly a much lower response rate. With a low response late there is a greater risk of bias (Bryman, 2016), therefore, the decision was taken to analyse only the data from the Library Directors' questionnaire for this study. This also allowed for the rich data from the Library Directors' questionnaire to be analysed in more depth.

The quantitative data that was collected from the Library Directors questionnaire was downloaded into IMB SPSS Statistic 27 to be analysed. Whilst a chi-squared goodness of fit test was performed in order to determine how representative the parent institutions of the participants were of the 140 institutions in the total population, partially due to the small sample size, which meant that most statistical tests were not appropriate, the focus of the analysis was on descriptive

statistics. Descriptive statistics are also more appropriate for critical realist studies since they can be used to reveal the complex patterns associated with a phenomenon (Hurrell, 2014; Sayer, 1992). Along with charts to display visually these descriptive statistics, contingency tables were also used to analyse the relationship between two categorical variables (Bryman, 2016). Although, it should be noted that these were not used to establish cause and effect relationships, but instead to add depth to the resulting description regarding how the phenomenon being studied is developing in the sector. For example, by establishing if there is relationship between the type of organisational structure and the mission group of the parent institution.

The qualitative data from the Library Directors' questionnaire was upload into NVivo and compared to the themes and codes that had emerged from the initial qualitative strand of the research to establish areas of where the data supported the previous findings, as well as areas of divergence.

3.7 Integration and interpretation phase

The integration of the qualitative and quantitative components is seen as valuable, some argue essential, component of a mixed methods study (Creswell & Plano Clark, 2011; O'Cathain et al., 2010). For this study, integration occurred at two separate stages. Due to the sequential design of this study, the first instance of integration occurred when the results of the qualitative stage of the research were used to develop the survey instrument for the quantitative stage. This stage was detailed in Section 3.6.2. Another stage of integration also occurred during the final phase of data analysis where the separate qualitative and qualitative results were brought together to assess how they jointly address the original research aims and objectives, allowing conclusions to be drawn (Creswell & Plano Clark, 2011). This was achieved through, what Fetters et al. (2013) term, 'joint displays', whereby integration occurs by "bringing the data together through visual means to draw

out new insights beyond the information gained from the separate quantitative and qualitative results" (p.2143).

Accordingly, a table was created whereby key results from both the qualitative and quantitative strands were aligned to the research questions to allow for comparison. Significantly, due to the large amount of qualitative data that also arose from the survey, this was presented in a separate column. Another technique for integration in mixed methods research is to identify areas of agreement and discrepancy between the qualitative and quantitative results, which O'Cathain et al. (2010) term 'triangulation protocol'. The researcher felt this would add a significant dimension to the integration stage due to the critical realist nature of the study, which has a particular interest in variance. Therefore, this method was also incorporated into the 'joint display' table by way of an extra column where agreements and/or discrepancies between the data were noted. The final joint display comparison table can be found in Section 6.2.

3.8 Ethical considerations

This research involved the use of human participants, in both the qualitative and quantitative strands of the research projects; therefore, it went through The University of Sheffield's ethics approval procedures. The ethics application and approval letter can be found in Appendix J. Permission was granted from the Information School Research Ethics Coordinator via email to make a slight amendment to the original plan for the surveys so that the name of the participant's university could be collected. This was identifying information and meant the survey was no longer anonymous, although this information was only collected so that the researcher could independently gather demographic information and avoid including more questions in the surveys. Whist the surveys were no longer anonymous, confidentiality was maintained and no university names or identifying information found in any of the qualitative comments were used in the write

up. This was explained in the first page of the online survey (Appendix H), which served as the Information Sheet and Consent Form, with participants required indicate they had read the information and were voluntarily agreeing to participate in the research before being able to complete the survey.

Ensuring confidentiality for the participants was the key ethical consideration for the qualitative strand of the research as well. Since this research involved case studies, there was a particular risk that participants could be known to each other and that people in positions of authority could connect comments to particular individuals (Boddy et al., n.d.). Participants were assured that their interviews would not be shared with senior library managers and every effort was made anonymise the data and provide confidentiality for participants. In this effort, the case study organisations were not identified in the research and no personal information was kept with the data, with codes being assigned to the data instead. Where quotes were used in the research results, actual names of people and case study institutions were not used. However, participants were clearly informed that whilst every attempt was made to maintain confidentiality and anonymity, they could not be guaranteed due to the nature of the research. This was included in the Information Sheet and Consent Forms (Appendix E), which participants were provided with in advance and required to sign, and discussed with participants before the data collection exercises.

3.9 Summary of chapter

This chapter has described how an exploratory, sequential mixed methods research design, underpinned by critical realist principles, was implemented to address the aims and objectives of this research. The initial, qualitative stage of this mixed methods study consisted of a multiple, comparative case study and the findings will be presented in the following chapter (Chapter 4). Chapter 5 will then discuss the findings from the library directors' questionnaire that functioned as the subsequent, quantitative phase of the research. Finally, the integration of both stages of the mixed methods research will be presented in Chapter 6, along with the interpretation of the findings and discussion of the integrated results in relation to the literature.

4. Multiple Case Study Findings

4.1 Introduction

This chapter presents the findings from the initial qualitative strand of the exploratory, sequential mixed methods research design, which was described in Chapter 3. This stage of the research consisted of a multiple comparative case study, with the findings below structured around the key themes that emerged from the thematic analysis. The first section of this chapter outlines the common drivers academic libraries are experiencing to change their structures, before presenting the specific drivers for either carrying out a functional restructure or maintaining a subject-based structure. The perceived advantages and challenges of both types of structure are then discussed, with the variations in these depending on the type of functional team explored in more depth later on in the chapter. The different approaches to changing structures at each case study site are also detailed and finally the contextual factors influencing the choice of organisational structures, the ways they operated and also their effectiveness are presented.

Throughout the chapter, where a quote is presented a code is provided alongside that relates to the specific participant. The first part of the code refers to the case study site, the second to whether it was an interview or focus group and the final part to the role of the participant. For example, 'A.INT1.SM' refers to the participant from Case Study A, who took part in the first interview and was a senior manager. A full breakdown of the codes used can be found in Appendix D.

4.2 Drivers for different structures

4.2.1 Need to change organisational structures

As illustrated in the summaries of each case studies that can be found in Appendix G, while the approach often differed, all of the case study libraries had changed their structures in the last 10 years. Whilst case studies A and B identified as being subject-based and had not carried out largescale restructures, it would be wrong to assure that they had not made any adjustments to their organisational structures. Instead of formal restructures around functional teams, which had been carried out at case studies C, D, E and F, case studies A and B had both made significant incremental changes to their structures, while still retaining a predominantly subject-based approach to services. It was acknowledged by senior managers and staff across the case study sites that all academic libraries were altering their organisational structures in response to new challenges, additional responsibilities and rapidly changing circumstances, albeit the approach and scale of the changes made differed. The common factors influencing changes to the structures of academic libraries that emerged at all six case study sites, irrespective of the type of structure their library had, included the following, with each discussed below in turn:

- Priorities shifting away from collection management
- Increasing need to provide research support services
- Increasing demand for teaching support services and a changing portfolio of teaching responsibilities
- Changing student expectations, needs and demographics
- Influence of business-focused approaches on governance in higher education
- Need to improve efficiency and consistency

- Need to bring in skills from outside the librarianship profession
- Little or no funding for new staff, despite increasing responsibilities

The overall challenge influencing changes to organisational structures that emerged was the increasing and changing responsibilities of academic libraries, and this was particularly cited in terms of priorities shifting away from collection management towards increasing the support services available for both students and researchers. As one participant stated, *"...it's the library as a service, I think, that's starting to become more prominent, rather than just the library as a collection" (C.INT1.SM)* and another noted how nowadays, apart from Special Collections, *"there's very little competitive benefit from much of the collections that libraries hold" (E.INT3.SM)*. Participants often discussed how changes to collection management practises, such as the incorporation of reading list management software, patron-driven acquisition practises and usage figures driving weeding decisions, were reducing the need for the direct involvement of librarians in collection management. This was allowing academic libraries to shift their focus onto other services and redistribute responsibilities and resources, resulting in a need to change organisational structures and roles:

"the adoption of [name of reading list management system], massively changed the way in which the Library operates and its process, which took away some of the things that were traditionally the [Subject Librarian's] roles, and moved it into the [technical and systems division] realm, which then gave capacity to grow other emergent areas" (D.INT7.L)

The increasing need to provide research support services was frequently cited by participants as the main emergent area that was requiring academic library structures to change. At all of the case study libraries it had resulted in the development of new roles, and sometimes teams, since research support was deemed to be a complex area that had outgrown the capacity of subject librarians who had other responsibilities to manage. Significantly, the increasing need to provide

research support services was a main driver for changing structures irrespective of whether the parent institution was a pre-92 or post-92 university:

"Well, there's a big focus in the University to increase the amount of research that we do, because of funding issues, and wanting to make sure that the University has a sustainable future...Our history comes from a teaching background. So, University senior management are trying to increase the amount of research going on and although we're given a reasonable amount of flexibility in terms of how we allocate funds to support teaching and research, we were asked to increase the amount of research support we could offer." (B.INT7.L)

There was the definite implication that academic libraries needed to establish themselves as supporting research in a clear and unambiguous way in order to avoid such support being placed in other areas of the university and the library being excluded from involvement in an extensive and prominent part of their institution's activities. This increasing need to develop research support services will be discussed further in Section 4.2.2 as it was one of the main drivers for creating a functional structure.

In addition to research support, it was observed at all of the case study libraries that organisational structures were having to adapt to accommodate an increasing demand for teaching support services and a changing portfolio of teaching responsibilities. Most of the case study libraries had expanded their teaching beyond traditional library tuition, with only the library at Case Study B not having formally acquired responsibility for academic skills support. This expansion of teaching support had usually been achieved through a pre-existing academic skills team moving into the library from elsewhere in the University or an additional team being established in the library using new staff. It was only Case Study F where the addition of academic skills support had been accomplished via a restructure of the current library staff. Although, significantly, even at Case Study B where academic skills support was positioned outside of the Library and Case Study A where it was

kept separate in the structure from the teaching undertaken by the librarians, both case studies still reported an increase in the teaching load for librarians. This resulted from both greater demand for teaching support and the addition of other teaching responsibilities, such as employability and digital literacy.

Furthermore, it was acknowledged that the increase in teaching demands experienced by librarians was linked to the expectation that library tuition should now move beyond predominantly teaching via demonstration, to sessions that fully incorporate teaching principles and pedagogy. One participant stated how *"it's developed more into actual teaching, rather than just showing people how to work something" (B.FG.1)*, which it was implied requires more time, effort and knowledge on the part of librarians. This change in expectations regarding teaching support also included the increasing need to provide and have knowledge of online teaching resources. As one participant stated:

"I think the biggest change in HE is that customer mentality and paying for education and the right to things, and that has changed my job role...It's even more integral that you have to be providing the best service that you can be, in terms of, it has to be relevant to the subject they're doing, but equally, it changes how we present services...and changes how people learn, and that people are very much more of a kind of video, YouTube generation. They want things when they want it and they want it now, and they don't want to have to wait, and they want to be taught a lot of things by watching things..." (A.INT4.L)

As the above quote illustrates, participants often linked the increasing demands around teaching support to changing student expectations, needs and demographics. As stated by another participant "[Students are] paying a lot of money in fees, an awful lot of money in fees, and they expect value for money. They expect the add-ons, they expect that additional service." (F.INT4.L). With regards to changing student demographics, many participants noted how changes to the

makeup of the student population were also increasing teaching pressures due to a growth in students who they perceived to require extra support. Significantly, participants at pre-92 institutions were more likely to identify growing numbers of international students as a reason for an increasing workload around teaching support, while participants at post-92 institutions were more likely to identify growing numbers of students from non-traditional and underrepresented backgrounds, due to their institutions' strategic focus around promoting social mobility. Although, one senior manager at a pre-92 university did discuss the impact of the government's social mobility goals on teaching support offered by all academic libraries in the UK, stating:

"...if institutions wanted to charge full tuition fees they had to demonstrate through an agreement with the Office of Fair Access what they were going to do to support their students...particularly students from disadvantaged backgrounds...for first-generation families at university...BME etc.... So, it wasn't just about the outreach and getting the students in from these different backgrounds, it was then about the support that's available for them once they get here" (C.INT1.SM).

Therefore, this implies that all of the case study libraries are likely to have seen an increase in teaching responsibilities at least partially because of the government's social mobility agenda and the need to demonstrate how they are supporting students. Nevertheless, changes were being made to structures and roles at all of the case study sites in order to accommodate these complex changes to teaching demands.

The previous quote also illustrates how academic libraries were increasingly required to prove their value, often through quantifiable measures, in order to demonstrate how they were supporting the parent university and its aims. This highlights the growing influence of businessfocused approaches on governance in higher education in the UK, with one participant stating how:

"...there's a lot more scrutiny now. So, we have to do a lot more with data and analytics... I think the whole sector is under more scrutiny in terms of what we're spending and how we're providing value for money and how we are contributing to the student experience and I think that whole idea is completely embedded in everything that we do." (F.INT6.L)

This influence of business practises was also observed in discussions around the need to demonstrate how academic libraries are customer-focused, which was linked to the changing expectations of students who increasingly identify, and are perceived, as paying customers:

"[The Library] is definitely trying to be leaner, more responsive, more customerfocused, I hate to use that word...you know, it's higher education, it's not a commodity, but it has become, unfortunately, a commodity, and the customer and all this sort of stuff" (F.INT3.M)

The influence of business-focused approaches can also be seen in the extensive comments made by participants regarding the need to improve efficiency and consistency in academic libraries. There were examples of participants across all of the case studies noting the benefits of a standardised approach to services, not only to ensure an equal level of service for all users, but also in order to allow for easier reporting to demonstrate the value of the library and its services. As stated by one senior manager, *"there are big trends in UK higher education around student finance, around regulation, around quality, around finance and you have to be prepared to respond to those." (F.INT2.SM).* Some participants even saw a parallel between the growing need for academic libraries to be run efficiently and akin to a business and similar pressures that have been experienced by public libraries. Altogether, this increase in business-focused governance was driving academic library structures towards being "leaner" and "more responsive".

Largely as a consequence of all the shifting responsibilities and expectations for academic libraries discussed above, the need to expand the skill set of the workforce was acknowledged at all

the case study libraries. Sometimes this was achieved by utilising the previously unused skills of existing staff or providing development and training opportunities, however, it was recognised at all of the case studies that there was an increasing need to bring in people from outside the librarianship profession. Significantly, participants cited the need to bring in people with skills and experience related to the previously discussed areas of development in academic libraries. This included people with skills and experience around pedagogy, research, marketing, business, customer service and data handling, many of which it was sometimes felt did not naturally fit with the traditional librarian skillset. It was also acknowledged that there might be requirements in the future to bring in staff with skills and experience in newly emergent areas, such as artificial intelligence and data science, as well as other as yet unknown future trends, and, therefore, it would be beneficial to create structures that were flexible enough to allow for this. Significantly, the benefits of diversifying the library workforce by including staff from other professions was recognised by participants at various levels at all the case study sites. One participant described how it "is really good to actually get people in that are from a non-library background to challenge our thinking" (A.INT3.SM) and another even stated, "I wouldn't want a team of complete librarians" (A.INT1.SM). This inclusion of new types of staff from outside the librarianship profession was inevitably affecting the organisational structures of the case study libraries and it was required for decisions to be made as to how to incorporate these staff into their structures. Significantly, the extent to which other professional staff were integrated with and differentiated from librarians within the structures differed between the case study sites. This will be discussed further in Section 4.3.2.

Finally, senior managers at the case study libraries often discussed how there was little or no funding for new staff, despite increasing responsibilities. There were some examples of extra funding being acquired, with Case Study A obtaining extra funding for new research support roles and case studies C and D obtaining extra funding for academic skill support roles, but it was acknowledged that additional funding was especially unlikely for staff that appeared to be in

traditional library roles. Even where some additional funding had been acquired, all of the case study libraries had still been required in some way to respond to these common challenges by adapting their current structures.

However, as previously mentioned, the way the six case study sites had approached these changes differed in both scale and method, despite the common challenges discussed. This had resulted in them having organisational structures that fell at various points along the subject-functional spectrum, as illustrated in Figure 4.1:

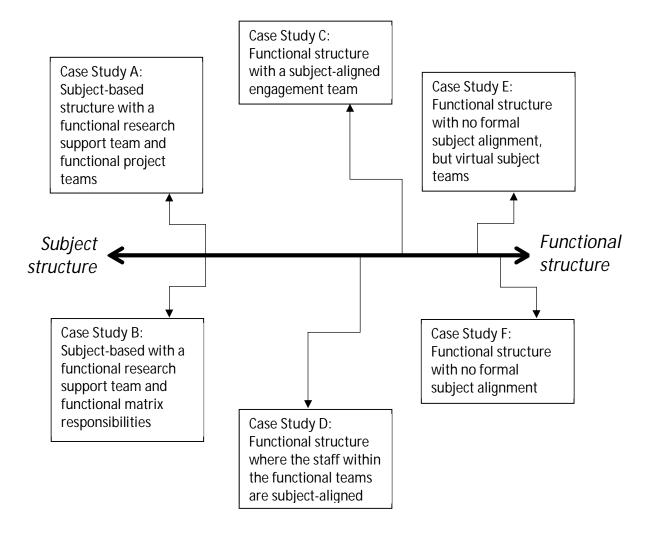


Figure 4.1: Case studies on the subject-functional spectrum

It is noteworthy that the case studies choosing to change structures incrementally, whilst incorporating some functional elements, had retained a more subject-based structure than those

choosing to undertake a formal restructure. The following will explore the reasons for both the diversity of organisational structures, despite the common challenges observed, and the differing approaches to changing the structures of academic libraries at the case study sites.

4.2.2 Drivers for functional structures and replacing subject librarians with functional teams

In this section, the reasons identified by the senior managers at case studies C to F for undertaking a restructure around functional teams will be outlined. Significantly, many of the drivers align with the reasons given for needing to change organisational structures discussed in the previous section. Therefore, this indicates that there are separate drivers creating the impetus to undertake a large-scale restructure around functional teams. Thus, although they are interrelated, a distinction has been made between the drivers for creating a functional structure, on the one hand, and the drivers for undertaking a restructuring exercise that replaces subject librarians with functional teams, on the other. These are discussed in turn below.

Drivers for creating a functional structure

Below is a list of the drivers identified for creating a functional structure, with Drivers 1 to 4 being identified as the most important and being explicitly discussed by the senior managers at all four of the case studies C to F:

- 1. Align the library with the university's strategy
- 2. Improve efficiency, focus and consistency
- 3. Develop specialist expertise, particularly around research support
- 4. Establish the library as a key department involved in supporting research
- 5. Create a clear and unified offering of student support
- 6. Librarians were perceived to no longer require subject knowledge
- 7. Respond to budgetary constraints

Firstly, functional structures were clearly being used by senior managers to align the library with the university's strategy. As one senior manager of a functionally structured library stated, *"I'd say that there's a golden thread that runs through the University strategy, vision, through the department and can be clearly traced back to the structure that we have in now and the changes that we made." (D.INT1.SM).* University strategies were often deemed to revolve around the separate activities of teaching and research, and a functional structure was being used to demonstrate clearly how the library supports these activities:

"...we've deliberately set this up so that we are supporting the university strategy...people are much more aware of what the strategy is and how what they do fits into that. So, what we've done for a long time now is talked about putting the student at the heart of what we do...and we have strategic aims like gold TEF...obviously good REF results and I think people can see how what the library is doing, and how our strategic plan fits in with that, because we mention the same things and we're working in all the same areas. So I think the structure does support that, because even the words we use...those are words that then appear in the strategy." (F.INT1.SM)

By structuring the library around the university's strategic priorities, predominantly teaching and research, the aim was to improve efficiency, focus and consistency in the activities related to these key areas. The senior managers at libraries with functional structures focused on the challenges around achieving efficiency, focus and consistency that existed in a subject-based structure, which will be explored further in Section 04.3.2. They particularly identified the need to ensure consistency of support and services across all subjects as a key driver for implementing a functional structure and perceived this not to be possible in a subject-based model:

"...there were challenges around consistency, you know as people [were] sort of thinking, I quite like that bit of my job, I'll spend more time on that. So, one School getting one kind of...story of things and then another School getting a different story. So...I think it's helped us provide a more consistent service to the academy..." (C.INT1.SM)

In addition, senior managers often discussed using a functional structure to reduce the range of responsibilities of librarians, thereby allowing them to really focus on these more specialised roles and develop the knowledge required. By allowing this focus, the intention was to allow staff to develop specialist expertise, particularly around research support, which, as previously discussed, was seen to be an especially important and complex area:

"So, really, the restructure was a change for functional reasons where we go, actually...there's only 4 of you but you in the [name of team – research support] now you don't have to worry about reading lists, you don't have to worry about all that kind of stuff...about induction, about scheduling loads of sessions with students, you can actually focus instead on research support" (D.INT1.SM)

By promoting the development of this specialist knowledge around research support, the aim was to establish the library as a key department involved in supporting research in the university and clearly signposting this involvement to the rest of the university by creating distinct research support roles and/or teams.

While the need to develop expertise in relation to teaching support was not discussed to the same degree as research support, significantly, the motivation to create a clear and unified offering of student support, and outwardly demonstrate to the rest of the university how the library supports the student experience, emerged from the interviews with senior managers as another driver. In case studies C to E, an academic skills team that had previously existed in another area of the university moved into the library prior to the restructure and senior managers used the

restructure to unify this with the teaching offered by their subject librarians into one functional team. While this was more of an implicit driver for case studies D and E, it was explicitly stated as a driver by a senior manager at Case Study C:

"So, part of the restructure...was about really trying to improve the recognition by the students of the whole service and it was to try and bring the whole lot together rather than thinking in terms of silos and students having to think I go there for that, I go there for that...The restructure brought together all the services under this one umbrella." (C.INT1.SM)

Significantly, at Case Study C, it was perceived that students recognised the brand of the academic skills team, but were less aware of the services offered to them by the subject librarians. Therefore, this bringing together of services was to increase the visibility of library skills provision and benefit from the brand already established by the academic skills team, rather than vice versa.

It was only Case Study F that had not acquired an already existing academic skills team, but the restructure had still enabled the library to begin offering academic skills support, again unifying academic skills with other library teaching into one team. This fitted with the ethos of the superconvergence that was occurring simultaneously, which aimed to make services clearer and easier to access for students. As a senior manager at this case study explained, it was *"about putting the student at the heart of what we do" (F.INT1.SM)*.

Another driver that emerged was that librarians were perceived to no longer require subject knowledge, and thereby alignment of librarians with subjects was deemed unnecessary. As one senior manager stated, *"The premise I think, for me, that you have to have subject knowledge was a false one because actually most people in those roles don't have qualifications or background in those subjects" (F.INT2.SM), noting there may be only a few subjects where subject knowledge is still required. The same participant then also went on to discuss how the increase in interdisciplinary studies was also negating the need for subject librarians. Linking back to the driver around ensuring*

consistency of services, the senior managers at libraries with functional structures focused on the similarities between different subjects and the need to provide standardised support, which negates the need for subject knowledge. Although, it should be noted that the need to have librarians with subject knowledge, particularly ones with qualifications or a background in the subjects they support, was not identified as a driver for maintaining a subject-based approach. This will be discussed further in Section 4.2.3.

Finally, the need for the library to respond to budgetary constraints and save money was a driver in half of the case studies that had a functional restructure. Whilst this also falls into the category of a driver for undertaking a restructure to reduce staffing costs, which will be discussed below, it is also linked to drivers for a functional structure since it was often commented that subject librarians were expensive members of staff.

Drivers for undertaking a restructure

As previously mentioned, many of the drivers for implementing a functional structure were being experienced by all of the case study libraries. Therefore, there were additional drivers influencing decisions to undertake a formal restructure around functional teams, rather than undergoing incremental changes that incorporated functional elements into the existing structure:

- 1. Respond to budgetary constraints
- 2. Instigate a cultural change
- 3. Contingent factors
- 4. Inability to address challenges through incremental change

As previously mentioned, one driver for some of the case study libraries undertaking a restructure was to respond to budgetary constraints and make savings, however, this was not a driver in all of the case studies, and where it was senior managers, unsurprisingly, did not emphasise this as an important factor. Instead, they focused on the purpose of the restructure being to

instigate a cultural change in order to establish how the roles and responsibilities of academic libraries were changing, as discussed in Section 4.2.1. Firstly, the cultural change was aimed internally to get the library staff to work in different ways, with one participant stating *"if you actually really are going to work differently you need to shake up the way that you're doing it." (F.INT7.SM)*. However, there was a dual intention to instigate a cultural change not just internally to library staff, but also externally to the rest of the university by demonstrating that the library was moving beyond a traditional library based around collections:

"...now we're getting more and more queries about a broader range of services, knowing full well that actually we have a bigger in role in the support of the staff and the students...they don't just see us as a place for books and come study in a warm place when it's raining, but it's like actually there's a lot more we can influence within their curriculum and with the student support and so on." (E.INT2.SM)

In addition, there were contingent factors at all four of the case studies that could be seen to have acted as catalysts to the restructures by creating an opportunity for them to take place. As stated by one participant:

"I think sometimes there's never one change going on, there are several, of which doing things like moving to a functional model and changing how the library operates, is just one small piece." (F.INT2.SM)

At both of the case studies C and E, the restructures occurred following the library moving into a newly constructed building and a refurbishment of the library respectively, while at Case Study F, the restructure was part of a wider university restructuring process to create a super-converged service. In all three of these case studies, the contingent factors were linked to the driver for instigating a cultural change, with both changes to library buildings and the super-convergence being used in combination with the library's restructure to rebrand the library. However, Case Study D also had its

own individual contingent factor of a new Head of Service being appointed, which provided the opportunity to undertake a restructure. The restructures at case studies C, D and E were also preceded by the addition of an academic skills team in the library, with the decision taken at all three to integrate this into one team with the teaching carried out by librarians during the restructure. In addition, the restructures often coincided with a significant change to workspaces and ways of working, which included not just moving to a new library building but also changes such as moving to new open-plan offices, sharing offices with other university teams and new hot-desking office arrangements.

Furthermore, in contrast to the case studies that had maintained their subject-based structure, another factor in the decision to undertake a functional restructure was that it was felt there were inherent problems with the subject-based structure, and they were unable to address challenges through incremental change:

"Probably the obvious thing is a functional one, if you're moving away from subject, but...it's not that of itself it works so much better. It's really about the problems of staying with a subject approach, I think, which is forcing most library structures that have been changed actually...I think that's the primary driver." (D.INT1.SM)

The senior managers at case studies D to F had often evidenced these problems through discussion of low NSS scores prior to the restructure, with one senior manager stating how *"it was very apparent from things like the NSS that there was inconsistent delivery" (F.INT2.SM)*. These perceived problems with the subject-based approach will be explored further in Section 4.3.2.

4.2.3 Drivers for maintaining a subject-based structure and incremental change

As previously mentioned, many of the drivers for implementing a functional structure were being experienced by all of the case study libraries, therefore drivers emerged for maintaining a subject-based structure. These are outlined below. Again, although they are interrelated, a distinction has been made between the drivers for maintaining a subject-based structure and the drivers for undergoing incremental changes to organisational structures.

Drivers for maintaining a subject-based structure

Below is a list of the drivers, identified by senior managers at case studies A and B, for maintaining a predominantly subject-based structure. Driver 1 and 2 were identified as being the most important:

- 1. Strong connections with academic departments
- 2. Ability to tailor services
- 3. Support for the subject approach from library staff and academics
- 4. Perception there is an insufficient number of staff for a functional structure

The perceived ability in a subject-based structure to create strong connections with academic departments was cited as the main reason for maintaining such a structure by senior managers, with one participant stating that:

> "...the individual relationships that the staff build up are extremely valuable and having that named contact and building up that relationship, I think was maybe one of the reasons why, as a Library Service, we're so successful...I think it helps to open more doors for us generally with lots of other different kinds of work or topics that we might want to do with Faculty. We've got a way in." (B.INT1.SM)

Senior managers at both case studies A and B attributed a lot of the success of their libraries to the relationship their subject librarians had with their academic department and feared losing this in a functional structure. This advantage of the subject structure will be explored further in Section 4.3.1.

Associated with this was the perception that this connection with academic departments was also important because it provided the ability to tailor services to the individual needs of each subject. In contrast to the senior managers at case study libraries with functional structures who emphasised the similarities in the support required for different subjects, the senior managers at case study sites with a subject-based structure strongly believed that *"each Faculty is slightly different and will have different needs" (B.INT1.SM)*. While it was acknowledged that *" there needs to be a core offer" (B.INT1.SM)* in order to ensure a level of consistency, it was believed some support needed to be tailored and the subject-approach afforded librarians the opportunity to do this as they were able to develop a familiarity with the subjects they supported. Although, it should be noted that the importance given to this familiarity with the subjects did not extend as far as in-depth subject expertise acquired through qualifications or an extensive background in the subject. Even at the case study libraries that had maintained a subject-based approach this was not identified as a requirement for librarians, rather it was the familiarity with the subject this type of structure allowed and the connection with academic departments that were important:

"[Subject librarians] build up a certain amount of knowledge and experience of that subject, and I think that's really valuable, but they are not experts in that subject in the traditional sense. So, I think that was also one of the reasons why I questioned a subject approach, because if they're not actually experts, wouldn't it be better to use people to just liaise across any subject, but it's still going back to that relationship..." (B.INT1.SM)

There was also the perception that there was strong support for the subject approach from library staff and academics. Whilst not explicitly discussing direct resistance from library staff, senior

managers at case studies A and B still perceived their library staff would prefer the current subjectbased structure, with one stating:

"I think the liaison staff would feel diminished if you said only half of them could do research support and some of them were teaching only, because I think they enjoy the diversity. The fact that it's a very different dialogue if you're talking to PGRs and to academic staff about their research. I think they find that part of the intellectually challenging aspect of the work...So, I think if you were to designate part of them as teaching support only, and others research support I think they would find that very demotivating." (A.INT1.SM)

Although this was not a main driver, it was a consideration for the senior managers at these case study sites. However, more significant in their decision making was that they believed academic staff would prefer this structure, stating how *"the feedback we did get from academics was that they liked named contacts."* (A.INT1.SM) and *"the positive feedback that we get on our Subject Librarians in particular…I think that's a really good reason to not scrap Subject Librarians."* (B.INT2.SM). It was believed that academic staff valued their subject librarians and there would be *"enormous pushback"* (A.INT1.SM) if they were to remove them, since *"culturally people would find that challenging"* (A.INT1.SM).

Finally, senior managers at both case studies perceived that they did not have enough professional staff to create an adequate functional structure, with both mentioning the University of Manchester as having a lot more staff to construct their functional teams from. However, while it is difficult to compare staffing numbers due to the differing remits of academic libraries and sizes of institutions, when it is considered that Case Study B had more professional library staff than all of the case studies that had created a functional restructure and Case Study A had a similar number of staff to some of them, this driver becomes questionable.

Drivers for incrementally changing the structure

The above are all drivers for maintaining subject-based structures, however, as demonstrated in Section 4.2.1, there were universal factors that were driving senior managers to evolve their libraries and make changes to organisational structures. Therefore, the interviews with senior managers at both case studies A and B also resulted in factors being identified that had specifically led to these libraries undertaking incremental changes to their structures, rather than a restructure. Although, these are both connected to the desire to maintain a subject-based structure:

- 1. Risk of jeopardising the success of the Library
- 2. Ability to address challenges through incremental change

Firstly, senior managers believed that by undertaking a restructure there was the risk of jeopardising the success of the Library due to the disruption it would cause to the library service. The senior managers at case studies A and B perceived the libraries to be well regarded within their respective universities and both were cited as performing well on the NSS and other internal metrics, which they at least partially attributed to the subject-based model. There was a strong belief that attempting a drastic change via a restructure could have a negative impact on this reputation and the success of the libraries. Nevertheless, as previously discussed, there was a need for academic libraries to change structures to a certain extent and the senior managers at case studies A and B acknowledged that there were challenges with a subject structure that required addressing. Therefore, changing structures incrementally was seen to be less risky and disruptive. As one senior manager stated when discussing the potential for a restructure around functional teams, *"I don't see that you would gain that much... and you might risk losing more than you think."* (*A.INT2.SM*).

Significantly, in contrast to the senior managers at the case studies with functional structures who believed the challenges of the subject approach were too extensive, the senior

managers at case studies A and B felt they had the ability to address challenges incrementally and retain a predominantly subject-based structure:

"...my concerns were about economies of scale, duplication of effort, was it the most efficient way of offering this kind of service, but I felt that there were improvements that could be made and would make the model that we have work even better." (B.INT1.SM)

The improvements that were made to subject-based structures at case studies A and B will be explored in more detail in Section 4.4.1; however, it included making incremental changes to the structure that involved incorporating some functional elements into the subject-based structures. This often led to structures being identified as hybrid, although the subject-approach was perceived to remain at the core. Significantly, it was also often implied that these libraries had been presented with opportunities to make changes incrementally. Again, this will be explored further in Section 04.4.1, but it includes being provided with extra funding to create new functional roles to sit alongside the existing subject librarians, and having the opportunity to redistribute staff, as was the situation at Case Study B following the closure of some university sites.

4.2.4 Other perceptions of drivers

The above discussion focused on the drivers for different structures that emerged either explicitly or implicitly in discussions with senior managers, yet, how other participants perceived the drivers generally aligned. This was particularly the case with the drivers for maintaining a subjectbased structure, where it was clear most participants recognised that those who had maintained a subject-based structure did so because of the strong relationships fostered with academic departments and the risks of losing this if a significant change was made. However, when discussing the drivers for restructuring around functional teams, while there was the overall acknowledgment

of the importance of the drivers around improving consistency, efficiency and focus as well as allowing staff the time to develop expertise as drivers, some nuances emerged in the importance placed on some of the other drivers depending on the participant.

Participants from libraries who had not undergone a functional restructure gave more importance to budget cuts as a driver for restructuring around functional teams. They also tended to place more emphasis on the use of a functional restructure to instigate a cultural change in the library, particularly internally to the library. These participants were often under the impression that one of the main reasons for a functional restructure was that there were problems with the staff in subject librarian roles who were not adapting to changing circumstances:

"...the anecdotal evidence that I've picked up whereby these people are like stickin-the-muds, we need to get rid of them. Oh, well, let's change the structure and that will help resolve those issues, but it's kind of like a really long-winded, unionfriendly way of constructive dismissal essentially...And I guess, you know, maybe if those people hadn't been as an inflexible in their approach, they may not have taken that approach" (B.INT5.L)

Perhaps unsurprisingly, this drive to instigate a cultural change was not expressed in such a negative way by any participants at libraries with functional structures. Although, comparatively, there was one former subject librarian at a library with a functional structure who questioned if functional restructures might be driven by a desire to reduce the control subject librarian had in the library:

"I was trying to think back over the last 30 odd years...Like I was saying before, you know, Subject Librarians used to be quite powerful forces. They might still be at some places. At the time when a lot of this kind of erosion was going on, I did sort of wonder...were they almost like too powerful? Some sort of medieval...powerful subject sort of thing, you know. Were they too powerful for

the senior management teams, who knew they'd got to make a lot of changes and they knew this would be the main block?... I think they were kind of monolithic" (D.INT5.L)

In addition, while this research highlighted a driver for undertaking a functional restructure as being to create a clear and unified offering of student support, as previously mentioned, apart from at Case Study C, senior managers rarely explicitly discussed this as a driver. This had clearly influenced how their staff perceived the reasons for restructuring, since they also focused on the need to improve focus and expertise in the area of research support as being a main driver and the need to unify student support was rarely mentioned. One participant at Case Study D stated how they thought the restructure occurred in order to clearly establish the library's role in research support and avoid the university structuring it outside the library. Another participant even directly stated that the restructure was driven by the growing research agenda, and the resulting changes to teaching and learning support services, including bringing together academic skills and library skills, were a *"more accidental" (D.INT5.L*) result of the restructure.

4.3 Potential advantages and challenges of different structures

In this section, the main advantages and challenges of subject and functional structures that came out of this research will be discussed. Some of these will be further explored in Section 4.5, since there was some variation depending on the type of functional team and other contextual factors. It is also important to note at this stage that these advantages and challenges were not inevitable consequences of the different structures, but tendencies that emerged. However, many of these were acknowledged by senior managers who were often attempting to overcome them, often by incorporating elements of both types of structure in different ways, again which will be explored

in subsequent sections. Significantly, many of the advantages and challenges of subject structures are the opposite of those for functional structures.

4.3.1 Advantages of subject structures and contrasting challenges of functional structures

Figure 4.2 illustrates the general advantages of subject structures with the contrasting challenges of functional structures:

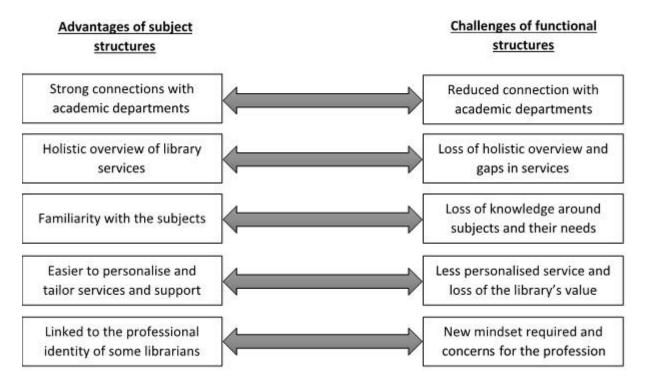


Figure 4.2: Advantages of subject-based structures and contrasting challenges of functional structures

In line with the key driver for maintaining a subject-based structure, it was acknowledged by participants across the case studies that the main advantage of a subject structure was that it allowed the library to develop strong connections with academic departments. It was often believed that academics valued their subject librarians and appreciated having named contacts to

liaise with, with some discussing how strong relationships, even sometimes friendships, would develop between academics and their subject librarians over years of working together. As one participant stated, *"I suppose you work on that relationship to the point they trust you" (B.FG)*. This strong relationship with academic departments was perceived to help avoid resistance when changes were being made in the library:

"...they value the relationship that they have with the Library and that's often embodied with the people that they work with and the [subject librarians]... So, I think, it's hard to underestimate the impact of that kind of political aspect. We have a number of academics out there in some of the Schools that are very well disposed to the Library and that's because of the fact that they've had a relationship built with [their subject librarian] over the years, and that can be quite important when there's issues with budgetary, kind of, problems, things like that, or we make some decisions to house collections in a slightly more radical way. It's useful to have these kinds of friends out in the institution..." (A.INT2.SM)

These close relationships were clearly highly valued at case studies A and B and they did not want to risk losing these by moving to a functional structure. Significantly, even those working in functional roles within subject-based structures appreciated the value of subject librarians. One participant who managed a functional element of the library at Case Study A recognised the benefit of the strong connections subject librarians had with their academic departments, and felt that *"it would be a shame if libraries lost that element of things, unless it was under some kind of major duress" (A.INT2.SM).* They went on to say that the relationship fostered between subject librarians and their academic departments helped the library to:

"...understand what is happening in the institution...What are people trying to do out there?...What are their usual day-to-day issues that they have?...I think if you are too distant from that, that's a really, really bad position to be in." (A.INT2.SM)

Participants also discussed how subject librarians had a holistic overview of library services and were able to utilise the strong connections they had with academic departments to market the library's services as a complete package:

"So, it's just when you have those either serendipitous conversations or you have that rare moment with an academic that you make the most use of, or a student...that you're able to promote all the services together, as a cohesive whole, rather than separate things really...go to speak to so-and-so for that. So, just to be able to give them a flavour and then be able to signpost. So, I think that's what I see my job as more than anything. It's like signposting effectively." (A.INT4.L)

In contrast, a reduced connection with academic departments was seen as the biggest challenge in functional structures. Significantly, this concern was not just expressed by those currently in subject-based structures, but was also shared by some participants working in functional roles and structures. A library director from a library with a functional structure acknowledged this as the biggest risk:

"...the subject approach means that you might have an easier route to win support from academics, which might give you some power...or might not. You know, so, if you've got academic advocating for either your subject librarian or your library is...then that becomes quite a powerful thing, and so if you wanted to avoid risk, that embeddedness and integration with that academic side of the organisation might be a more comfortable place than the corporate side of the organisation....But I would say, if you're good at what you do and you can be confident, then you don't need to do that. I'm not saying that anyone who keeps a subject service does it because they are trying to hide or shelter. I'm not saying

that, but that's a side benefit in terms of risk...because you don't want your Faculty not supporting you" (F.INT2.SM)

Hence, in a functional structure the relationship with academics was often viewed as more ad-hoc and transactional than in a subject structure. There was the general feeling that in a subject structure you are *"closer to the students and staff" (D.FG)* and some participants, including senior managers, acknowledged that gaps around engagement had developed:

"We do feel that there's a bit of a gap in how we engage with academics on the ground...And we know that there's work to be done in that space and there's probably more services we could offer in those spaces." (E.INT3.SM)

Along with this gap in engagement, participants recognised the potential for other gaps in services to develop in functional structures, many of which will be explored further in Section 4.5. As one participant stated:

> "I think the [subject librarians] hid a lot of the work that they were doing. There was hidden work there that has now kind of become evident and there is a great big list of things that are just falling in betwixt" (C.INT3.M)

Another participant recognised that it would always be a challenge to attempt to align the structure of the library with the strategy of the university because there's *"a lot of stuff left over that still needs doing that isn't part of the strategy document"* (*D.INT5.L*). There were also clear difficulties in splitting up responsibilities into functions, with one participant referring to some inevitable *"grey areas where there's a bit of ambiguity...about who's in charge and who's not about things"* (*D.INT1.SM*), which not only caused gaps in services but some tension between teams. While the case studies with functional structures had acknowledged many of these gaps and some attempts were being made to rectify them (see Section 4.4.2), there was a feeling amongst some participants that there was *"a lot of reinventions of wheels'* (*C.INT4.L*). Significantly, many of the gaps in services that participants discussed were related to the reduced connection with academic departments and the associated loss of knowledge around subjects and their needs. As one participant stated, in a subject-based structure *"you get people who build up a level of expertise with the subject." (A.INT2.SM).* While it was greatly acknowledged that subject librarians no longer required in-depth subject knowledge, it was recognised that, through their connection with academic departments, subject librarians develop a strong familiarity with the subjects they support. Participants, who were subject librarians or had previously been, discussed how in a subject structure *"it's about finding out about needs...looking at the service developments, looking about what we can do to solve their problems, understanding their priorities, rather than actual subject knowledge".* Another participant discussed how you are able to develop *"an understanding of the people that you're supporting" (B.FG).* It was also discussed how this included *"how they learn and the specific things that they're going to be looking at or wanting to find information on, so I can pick up keyword terms that will be useful for them" (B.INT5.L).* This was seen as important because of the differences between subjects:

"...every group of students are entirely different and the methods that you use to teach are entirely different. There are certain methods that I currently use with my students that I teach now that I would never consider using for other students. They're very different. You know, nurses are entirely different from business people...There's just no comparison between the types of people, and the way they learn...And then there's what their academics want them to learn etc...how they want them to learn. So, it's very, very different." (B.FG)

Therefore, it was felt that this understanding of the subjects and their nuances that a subject structure facilitated made it easier to personalise and tailor services and support to the specific needs of the academic departments and their students:

"I don't think you can deliver those personalised experiences if you don't understand the departments that you're working with. So, therefore, you need a subject specialist to understand the kind of intricacies of the department and how they work best. So, that you can deliver experiences, learning experiences, that are kind of meaningful" (B.FG)

One participant mentioned how *"having a kind of basic understanding of what they're doing, also in their teaching and their research, then also helps in terms of what we then buy for the collections" (B.FG).* However, mostly participants focused on being able to tailor teaching sessions and one-to-one support for students to fit in with their studies, highlighting the problems when teaching is not personalised:

"When you've given a more generic, you know, [you've] taught them something in a very generic way, you can almost tell that they're there but they're not present and they're just in the room, but you know that they're not taking it on board." (B.FG)

Another participant stated how "you wouldn't even pass a teacher training course if you were doing one size fits all teaching." (B.INT5.L). However, questions were raised regarding what level of subject knowledge was actually required in order to adequately tailor library services, which will be explored further in Section 4.5.3.

Nevertheless, in a functional structure many reported concerns over providing a less personalised service for users, identifying this as a major gap that can develop, since they believed it was more difficult to tailor services due to the weakened connections with academic departments and the associated loss of subject familiarity this brings:

"I suppose what we're seeing at the moment now, is that the functional approach allows us to be very efficient in the delivery of a number of nominated services, but

we probably lack the capacity and the breadth that the subject roles gave us, which allowed us to be a bit more, sort of, thinking outside the box or coming up with solutions which suited the academic need better" (E.INT3.SM)

Significantly, it could even be argued that the full impact of functional structures on the ability to personalise services to academic departments was not being felt at any of the case studies C to F. This was because at each library there were clear examples of staff relying on the connections and subject knowledge they had obtained from previous subject-based roles. One manager who strongly supported the functional approach even stated:

"Maybe in 5 years when those people have gone, the ones that have still got that old subject knowledge that they used to have all those years ago, maybe when those have gone, I'll see the point of a subject team" (D.INT4.M)

Some participants currently in subject-based roles feared that in a functional structure the library would become a faceless service, comparing it to their own challenges when dealing with faceless services in their day-to-day lives, and clearly appreciating named contacts in their own interactions. One participant working in a functional role in a subject-based library noted how a subject-based structure helps the library to see the university in terms of *"human beings out there who are hitting various obstacles" (A.INT2.SM)*, rather than viewing it abstractly and becoming disconnected from the activities of the university. Even those working in functional structures felt that without any subject-based roles the library could become less focused on the needs of staff and students. It was perceived that in purely functional roles *"you're probably more likely to get tied up a little bit in rules and regulations and procedures…and you don't really stop to think, why am I even doing it that way?" (D.INT5.L).* It was thought this could lead to a reduction in the quality of some of the services provided as there was less impetus to tailor services to specific academic departments and individual needs:

"...you're never going to support Astrophysics the way you support Drama, and actually when you're working in a subject role, you get to understand what that something needs to look like and why it's different, and then the interesting challenge is bringing that back and sitting round the table together to try and work out how you can make that into a coherent service. Whereas when you're in this functional role, I think my concern is sometimes that we get a bit too bogged down in...we as a Library are going to do X, and if that doesn't fit Astrophysics and Drama, well, that's just tough, and I think sometimes it feels like when you're in a functional role you are, not obsessed, but what comes first and foremost is kind of Library process, how will we do that? How do we make that work for us? Well, it isn't about us. Whereas when you're in a subject role your challenge is the other way round, which is, that's what they need, how can we make that work internally?" (E.INT7.M)

Therefore, while it was argued that subject-based roles can *"become too wedded to the subject" (F.FG)*, in a functional role *"there's a risk that you think just about your function...and not about the bigger picture" (F.FG)*, and this loss of the holistic overview of library services was considered to be just as damaging.

Altogether, these challenges with functional structures were leading to fears over the potential loss of the overall value of an academic library. It was expressed by some participants how, while there were clear benefits to a functional structure, there was the risk that academic libraries could become 'too functional' as the responsibilities and services were increasingly broken down and compartmentalised:

"I'm quite conscious of the fact that I want to describe the library as...having an information cloud out there and University staff at this bit, with an arrow, and the arrow goes from the information or the internet or wherever to the staff and

students, and then there's the Library in the middle and the Library adds-value at some point in that path, and the key thing a library has to address is to identify, ok, what value is it adding? And a drive towards efficiency inevitably makes you very process oriented and if you're very process-oriented, then you potentially can move to a point where you say, you're not adding value, you're just carrying out a process" (E.INT3.SM)

Concerns were expressed from participants at all case studies that, if care was not taken, as structures become more functional and process driven academic libraries could *"just become a production line" (B.INT7.M*). It was felt that this could create the potential for creativity to be stifled and the library could lose its *"academic soul" (E.INT5.L)* as it becomes more corporate. One participant from an academic library with a functional structure even stated how *"you do feel maybe you're becoming a vanilla service, rather than a hundreds and thousands and cherries on the top type service." (C.INT5.M*). Many associated the subject-based roles and the accompanying ability to tailor and personalise services with this value added by an academic library.

While assessing the opinions of stakeholders outside the library was beyond the scope of this research, when asked if those who had undergone a functional restructure had received any feedback from academics most had not experienced any significant resistance or complaints. One participant stated *"I don't actually think academics are that interested in how we organise...as long as you continue to deliver what they need" (C.INT6.M)*, with another stating how these structural changes are *"more internally controversial, than externally, generally." (C.INT5.M)*. In many ways, this could be because questions were being raised by participants as to the wider implications for the academic library as an institution, as its roles and responsibilities are increasingly unravelled and compartmentalised in a functional structure. Significantly, one participant who managed a functional element of a subject-structure even stated that, *"there is something inherently 'proper librarian' about [subject librarians] and if you didn't have that level what does a Library mean?" (A.INT2.SM)*.

Another senior manager at a library with a functional structure acknowledged that the more functional you make an academic library the easier it is to move services and teams outside the library, stating that *"If I wanted to protect the library I'd make sure the structure and teams are as ball and wool like and tangled as possible" (F.INT2.SM).*

Therefore, there was the awareness that functional structures have the potential to impact on the fundamental nature of academic libraries. One participant working in a functional role stated how *"I feel that synergy with staff in other parts of the University, and sometimes actually it's closer with them than maybe some of the other areas with the Library" (D.INT3.M)*. Consequently, librarians were inevitably often finding the adjustment to working in a functional structure challenging. One reason for this was that many participants who were subject librarians, or had formerly been, stated how they enjoyed this role. They particularly appreciated the variety of responsibilities and the freedom and autonomy the role allowed, thereby substantiating the driver often cited by senior managers for maintaining a subject approach because of staff preference for this approach. As a former subject librarian who had been restructured into a functional role at Case Study C stated:

"It was like my dream job being a [subject librarian]. That's quite sad, isn't it? But I thought it was perfect for me because it was a job of all kinds of different things. It had a real mixture to it, and then I was being asked to just focus on one particular aspect. So, I was a bit sad and it meant that my job was going to have to change...I wasn't kind of against it, but also I didn't like the idea that...I couldn't do all three things anymore." (C.INT2.L)

It became clear that the variety associated with the subject librarian role was not only valued because of the enjoyment it brought to the role, but also because it was strongly linked to the professional identity of some librarians. As one subject librarian stated, *"we get to do loads of different things. So, you feel that you're kind of developing your professional skillset, and I think that*

would be kind of a worry if you were just doing one thing" (B.FG). In addition, for some subject librarians their professional identity and career fulfilment was linked to their relationship with academic departments, and the associated subject knowledge they acquired. Therefore, this can at least partially account for why those in, or formerly in, subject-based roles presented the strongest concerns over the loss of these academic connections. As one participant stated,

"...if you're coming from a subject point of view...a lot of their value proposition was about being knowledgeable. So, again mirroring where academic institutions were at, which is that the reason why you're considered to be important is because you are very knowledgeable in a certain area and libraries operated on the same basis – I know this collection back-to-front or I know how to do so on and so on. Very much knowledge oriented, and therefore you got into it or you did very well on it by basically learning about your subject area and the resources within it." (E.INT3.SM)

A former subject librarian even believed that *"librarianship can attract certain personalities who like to be the person who knows everything" (D.INT5.L)*. Another team manager believed librarians struggled let go of some responsibilities in a functional restructure:

"You don't answer the queries, you've got to pass them on, I think it's...just trusting that someone else can do that and it will be done...I think it's getting there, but I think, when you move functional, when you're not responsible for everything, when you're not seeing everything through and other teams are delivering bits and you're holding it together and doing the messaging and communication I think you have to start to let go and do that trust, but I think that is a challenge." (C.INT6.M)

Another senior manager stated that:

"Librarians don't like not being helpful...So, what they struggle with saying is actually, you know, 'I don't do that kind of help, I can put you in touch with somebody who will come and help you though', but they don't like saying that," (D.INT1.SM)

Many subject librarians expressed how they would find having to pass enquiries on to another team frustrating, particularly if they felt they knew the answer. This was linked to perceptions of the library becoming more like a production line, with one participant stating, *"we're all bright, intelligent human beings. We're not machines" (B.FG).*

Consequently, it was perceived that moving from a subject-based role to a functional role required "*a different mindset, and potentially...a different set of skills*" (*E.INT3.SM*), as one participant described. Another described it as a significant *"ideological change"* (*E.INT5.L*) for the staff members involved, with the new mindset required for the transition dependent upon the type of functional role:

"But if you're a [subject librarian] and you're aligned to a subject, you're whole kind of drive is to do with helping that area succeed - help those students succeed, help the research in that area, develop your own expertise in that area and the resources available to it - to be able to help drive the business objectives of that particularly Faculty and the objectives of individual students that you're working with in all areas of librarianship that you're working in. Whereas when you come into a more functional role, your kind of ideological drive depends on where you are." (E.INT5.L)

Whilst it was acknowledged that some staff embraced this ideological shift, at most of the case study sites that had undertaken a functional restructure some former subject librarians had chosen to leave. As one participant stated:

"...some colleagues have chosen to go to other universities to get back into more familiar roles...because I think that was their comfort zone. That's the thing they believe in. That's what they enjoy doing. That's what they find rewarding." (F.INT2.SM)

Significantly, even for those staff who remained it was described by one participant how there was the risk of some staff becoming trapped in a *"psychological prison"* (*F.FG*) and focusing on what they had lost rather than exploring the opportunities to develop their new role. It was also acknowledged that some were just not suited to the new functional roles they found themselves in, since in the restructures new roles were filled by existing staff, which created problems in the new structure:

"...we also ended up with colleagues who ended up roles they probably didn't really want just so they stayed in employment, and I think that's just as problematic, because if you're employed in role that you don't really like or you don't feel you're good at, it's not good for you, it's not necessarily good for the people around you." (E.INT7.M)

Some staff navigated this ideological shift easier than others did, but this clearly depended on the individual and their attitude to change. However, what was observed was that how easy librarians found the transition and, consequently, the extent to which they felt a loss of professional identity, was linked to the type of functional role they moved into, with those moving into teaching and learning roles often appearing to struggle more with the transition. These differences in this loss of professional identity will be explored further in Section 4.5. However, it was also often felt that staff were not provided with sufficient training or support to transition into new functional roles, which not only required an ideological shift but also the development of new skills outside the traditional librarianship skill set.

While not all participants felt the loss of professional identity to the same extent, many participants, no matter what role they were in, did have concerns for the profession since they felt

that the traditional librarianship skill set was becoming diluted "almost away what librarianship is with the holistic view" (A.INT6.L) as functional structures and functional roles increased. Significantly, these fears were not only expressed by those in subject roles, but also echoed in the comments of those in functional roles, who often felt their professional skill set was not being valued. As one participant who worked in a functional structure stated, "I think there is a bit of a crisis of confidence...in terms of traditional library skills" (D.FG). This appeared to be because in functional structures librarians were increasingly being mixed in teams with staff from other professions where they felt their skills were being lost, hidden and undervalued, or they were ending up in functional roles that did not require a librarianship qualification. It was even highlighted by a participant at Case Study D that the fact their Head of Service was not from a library background "speaks volumes to be honest" (D.FG). One participant, who significantly did not come from a librarianship background, while acknowledging the value librarians had to offer, felt that it was "at risk of becoming a dead profession" (E.INT5.L) because the skills are not valued. Consequently, there was the overall feeling that over time as staff left they could increasingly be replaced by people from outside the profession in a functional structure, particularly because librarianship qualifications were rarely essential, leading to a decrease in the proportion of librarians working in libraries. Although, one participant did note that these changes cannot be fully attributed to functional structures and roles:

"I think the profession of librarianship is changing and evolving and fragmenting...and that's not being driven by functional library roles, the two things are actually happening alongside each other. They're interrelated, but it's not a case of functional roles causing the changes to the profession." (B.INT2.SM)

Overall, with the increase in functional roles and teams, there was a general feeling that, as one participant expressed, while there was a need for *"flexibility and adaptability and holding things"*

loosely and not tightly as a profession, and being willing to like adapt and change" (A.INT4.L) there was also the need to establish and maintain the profession's *"core beliefs" (A.INT4.L)*.

4.3.2 Advantages of functional structures and contrasting challenges of subject structures

Figure 4.3 illustrates the general advantages of functional structures with the contrasting challenges of subject structures:

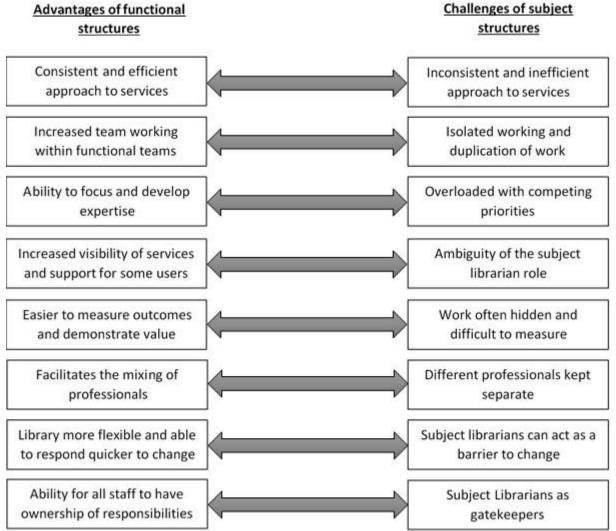


Figure 4.3: Advantages of functional structures and contrasting challenges of subject structures

As discussed in the previous section, the main advantage of the subject librarian role was the strong connection with the academic departments this approach facilitated, including the ability to tailor services to suit the needs of their subjects. However, it was perceived that this inevitably led to the development of inconsistency and inefficiency within a library service.

Inconsistency between the support provided to different subjects was seen to be an unavoidable aspect of a subject structure, with one participant stating how *"it's not even that the liaison role is the same across each Faculty or within each subject area" (A.FG)*. This was seen to be because of the different ways subjects operate and the differing levels and focus of support they require. For example, it was discussed how for some subjects, such as History and English, their subject librarians had to be more involved in collection management compared to other subject, particularly the sciences. Significantly, many participants, principally current and former subject librarians, argued that an element of inconsistency was actually important, since without it the ability to tailor and personalise services is lost, which as previously discussed was seen by many as being an advantage that added value to library services (see Section 4.3.1). One participant even believed it was impossible to be completely consistent, stating, *"...we're dealing with people, and everybody is an individual and everyone has a slightly different view. So, I don't think you can be completely consistent." (B.FG).*

However, whilst some variation in the services provided to subjects was often deemed to be necessary due to the differences between subjects and their support needs, this led to inconsistencies in the workload between different subject librarians. Some subjects were even regarded as more demanding than others, making it difficult to split the workload evenly, which participants at both case studies A and B noted as a challenge. Consequently, not only was this difficult to manage internally, but it was recognised that those supporting fewer or less demanding subjects would inevitably be able to provide a greater level of service than those supporting a larger

number or more demanding subjects. At Case Study A, a participant discussed how one subject, previously:

"...had a librarian who did above and beyond for them...she just had them. So, what she did was huge, because presumably she had the capacity to do that at the time, but the legacy of that still lives on. They still try and get us to do exactly the same amount, and it's not particularly effective" (A.INT4.L).

Therefore, most participants acknowledged that there were many challenges associated with the inconsistencies that develop in a subject structure, which often extended further than that which was deemed to be necessary in order to tailor support. Senior managers were especially likely to view inconsistencies as a significant problem in a subject structure, and often cited differences in NSS scores between subject areas as evidence of inconsistent levels of service. These challenges around inconsistencies were frequently discussed alongside inefficiencies that were seen to develop in a subject structure as well as being clearly interconnected with other challenges that were identified with subject structures.

Essentially, by having librarians who worked individually with their subject areas, this was seen to promote subject librarians to work in isolation. It was discussed how subject librarians were perceived to not "work brilliantly well as a team necessarily and...tend to be extremely individual in the way that they approach their work" (A.INT2.SM). This lack of team working further aided the development of inconsistencies between the service different subjects received, as subject librarians were even perceived to be more innovative. One participant described how this created "pockets of really good practice", which they felt in a subject structure were "harder to scale up because people are so focused on...[how] it won't work in my little area or I'm just not interested in that and I'm concentrating on this other thing I have to do" (C.INT1.SM).

This isolated working style not only promoted inconsistencies, but also it was inevitably inefficient because it led to the duplication of work, which was already a pronounced risk in a subject structure where subject librarians are all carrying out the same responsibilities for their subjects. Unsurprisingly, senior managers had strong concerns regarding inefficiencies in a subject structure, but other participants also noted this as a challenge. As one former subject librarian stated that previously:

"...there was a lot of duplication of effort. And that was nobody's fault, it was purely because we didn't have time to do it any other way. In a sense, it was just quicker to do it myself than it was to find out what everyone else was doing and co-ordinate" (C.FG).

This quote also illustrates another challenge of subject structures discussed by participants, that of subject librarians often being overloaded with competing priorities, which further contributed to the development of inconsistencies and inefficiencies, as well as impacting on the ability of subject librarians to give sufficient attention to all responsibilities:

"I find it weird because...what takes priority? That's not really addressed that well here, I don't think. So, obviously, some things have a deadline, you know, if you're preparing a teaching session, if you've got to prepare some resources for the start of term. That's fine. Other things get left by the wayside...you might start working on something in the summer when it's quieter and then when teaching starts you just don't have time to carry it on. So, I think prioritising is quite difficult and it's not really something that is factored in really. So, it's hard to know what your priorities should be sometimes, and obviously I'll always prioritise student enquiries, academic enquiries and teaching over everything else. Over like, book ordering or something, you know, going through catalogues and ordering books

that kind of gets pushed to the back a bit. So, yeah, I find that a bit difficult sometimes." (B.INT6.L)

It was discussed how subject librarians often did not have the capacity to be able to focus on and become confident in all of the activities they were expected to undertake and a few participants in subject librarian roles even described feeling like a 'jack-of-all-trades'. Being overloaded with responsibilities inevitably affected the quality of services in some areas. For example, it was often noted how services for Masters level students would be overlooked. Although, it was recognised that the areas being overlooked were not always the same for different subject areas since subject librarians lacked sufficient direction on what their priorities should be. This allowed them the freedom to focus on their preferred activities and further promoted inconsistencies. The previous quote was from a participant who noted how they favoured the teaching support element, but others discussed how many subject librarians would still prioritise collection management, which senior managers felt should not be a priority for subject librarians anymore. It was also identified that there was the potential for subject librarians to provide an inconsistent level of service between the subjects they supported, if they supported more than one. This could unintentionally develop if they had a stronger relationship with one department or enjoyment for a particular subject. Therefore, differences in the individual preferences and priorities of subject librarians further contributed to inconsistencies in support developing. As one participant stated "...depending on who you are and in which subject you are, you might get a different response and different type of response than you would going to someone else..." (A.INT2.SM).

Furthermore, there could be inconsistencies in service due to differences in the subject knowledge of individual librarians. Some could have qualifications related to the subjects they support or have been supporting these subjects for a long time and have developed extensive subject knowledge. These subject librarians were able to provide more in-depth services to their subject, often 'going above and beyond', which led to inconsistencies, especially when compared to

a new subject librarian who was supporting a subject for the first time and could not offer this same level of service. It was noted at Case Study B how some of their subjects had unfortunately experienced a high turnover of subject librarians, which had inevitably affected the service they had received. As one participant stated, a functional structure would alleviate this type of inconsistency:

"...some subjects manage to have the same person for ages and it's just kind of by accident really, whereas I suppose if it was a functional team everyone, every department would have more or less the same service I suppose, it wouldn't be affected by that." (B.FG)

Therefore, unsurprisingly, the main advantages of functional structures cited by all participants, aligned with the main drivers for undertaking a functional restructure – greater consistency and efficiency. By having a single role or a team of staff each focusing on an area of academic services, this was seen to provide consistency to all subjects and *"equal access to everyone"* (*C.INT6.M*), with it often believed that all subjects would have access to the same services at the same level of quality. One participant also stated how *"it does make it much easier now we're in this model to think about...what is our service? What should we be providing? What are our service level? That kind of thing" (<i>C.INT7.M*). This consistency of service was not just an advantage expressed by the senior managers who had implemented a functional restructure, but most participants highlighted it as an advantage. Although, it should be noted that it was identified that there was the risk of some inconsistencies slipping back in as some former subject librarians would inevitably draw on their previous knowledge and connections:

"...the [teaching and learning team] has a couple of librarians in it, who were [previously subject librarians], in some ways they're sort of maintaining their old linkages, as it were. So, there are some areas, some Faculties where we're a lot more successful than others." (D.INT6.L)

Nevertheless, a functional structure also helped to even out inconsistencies in workload between staff, although as will be discussed later, only within functional teams amongst staff undertaking the same roles:

> "Medicine demand was through the roof. Nursing for one-to-ones through the roof...I mean you could go 6 months without seeing an Engineering or Science student, they don't need you. Maths students don't need you, or at least they think they don't. So, when you're paying someone the same job and essentially they've got the same job description, but one's doing 20 hours of one-to-ones a week and one's doing 1 hour every 6 months, you've got to find a way to kind of sort that out. So, the real advantage of the functional is that consistency of workload as well...no one's overloaded or feels a bit unloved" (C.INT6.M)

Furthermore, this consistent approach to services in a functional structure was seen as being inevitably more efficient. Many discussed how it was a more "streamlined" approach to providing services, with one senior manager stating, "you're empowering people to do something end-to-end, which means they can do it better and faster" (F.INT2.SM). It was acknowledged by many participants that this gave staff a greater ability to focus and develop the expertise required for their functional area, with one participant stating how, "instead of trying to be on top of everything you're concentrating on one particular aspect now" (C.FG). Consequently, it was discussed how staff then only required training that was relevant to the functional area. A functional structure was also seen to be more efficient because duplication of work was reduced since an individual or a team had "the overview of a whole area" (F.INT6.L). Although, as will be discussed in Section 04.3.3, while duplication of work within teams was seen to reduce, there was still a problem with duplication of work between different functional teams.

In addition, participants often reported an increase in collaboration within functional teams and the development of a *"team culture"* (*C.INT7.M*), which further contributed to a reduction in the duplication of work. This improved team working was sometimes attributed to teams being smaller, enabling staff to share ideas and *"to work more closely...and more streamlined"* (*C.INT2.L*), again supporting a more consistent and efficient approach to services. One participant even attributed the increase in team working to the change in mindset a functional structure promotes, stating, *"...no one goes native. We all know we work for Library Services, we don't work for [the academic departments]"* (*C.INT6.M*).

Furthermore, this increase in team working in functional teams also helped professional staff to develop expertise in their areas, with many participants giving examples of their teams sharing knowledge and supporting each other to develop in their roles. It appeared that this team approach to training and development rarely occurred in subject structures. Non-professional staff could also benefit from this in functional structures if they worked alongside professional staff in the functional teams. This was the case at Case Study F and it was seen to facilitate better career development opportunities and clearer paths for career progression.

A functional structure also appeared to facilitate the mixing of librarians with other professionals within library teams, which made this peer-to-peer learning that was occurring even more significant. It was clear that professionals from outside the librarianship profession were increasingly being employed in the case study libraries with functional structures because, not only were they more likely to remove librarianship as an essential qualification, but the clearer roles appeared to make it easier for other professions to comprehend how they fit into the library. As one participant stated, *"the functional roles are probably more likely to get someone who isn't a Librarian." (D.INT5.L)*, while a subject structure is *"going to be a harder nut to crack for somebody who's not a librarian" (D.INT5.L)*. At both case studies A and B, while for the highest grade subject librarians the librarianship qualification was still essential, it had been made desirable for the subject

librarians on some lower salary grades. In theory, this should allow people from outside the profession to fill these posts; however, they were all still filled by librarians. Understandably, using the word librarian in the job title discouraged those from outside the profession from applying. In contrast, at the case study libraries with functional structures, since the restructures, most of the new staff employed in academic services roles in the library came from outside the librarianship profession, most often from teaching professions.

Not only did a functional structure promote bringing in different professions to work in the library, it also appeared to facilitate the mixing of librarians with other professionals. While the case study sites with subject structures did have staff in roles throughout the library who were not librarians, these different professionals were predominantly kept separate in the structure from librarians, particularly the subject librarians. In contrast, at the libraries with functional structures, librarians and other professional staff were often mixed together in teams. While this was not without its challenges, it was acknowledged to be greatly beneficial, since it facilitated collaboration between the different professionals, resulting in both groups discussing learning from each other and developing their skills, thereby further developing strong areas of expertise.

By creating different functional teams of experts, often containing both librarians and other professionals, which clearly focus on specific areas of service provision, it was also discussed how this would change the image of the library and increase visibility of some services and support to users. As one participant stated a functional structure is

"...projecting that image that we're there to enhance your learning or enhance your research skills or act as an engagement partner...rather than it's just...the Librarian for your subject who will help you to find the resources in your subject" (C.INT7.M)

In many ways, it was implied that there is a certain level of ambiguity to the subject librarian role and a lack of clarity in the responsibilities it holds. Even a senior manager from a library with a

subject-based structure acknowledging that there is the potential for them to *"be seen as something from the past" (B.INT1.SM)* and the role could benefit from a revision of its image in order to protect the library. As one participant argued, *"there was the advantage of people not knowing what we did, which gave us a little bit of freedom to dictate what we did, how we did it, but then there's the disadvantage [that] people didn't know what we did" (C.FG).* Functional structures were seen to remove this ambiguity and improve the visibility of the library's services to the rest of the university.

This perceived increased visibility included an increase in the visibility of services to library and university leadership, since it was recognised that in a functional structure it was easier to measure outcomes and demonstrate the value of the library. Before such information was more difficult to obtain since it was spread out amongst the subject librarians, with some work being hidden and difficult to measure. With this change in image and capacity to measure outcomes, some of the senior managers of the case study libraries with functional structures reported an increased ability to operate at a strategic level within their parent institutions. It was demonstrated by these senior library managers how there was more recognition from the wider university and its leadership of the academic services the library provided, which was evidenced by them being asked to take on extra responsibilities related to the new functional areas. One senior manager even credited their functional structure with improving the image of the library within the institution:

"I think what I would say is that the changes that we've had here have meant that generally speaking across the university, the library is seen as a very constructive, helpful partner. It's not been marginalised. It's not been side-lined. It has a good reputation and it's seen as a department of expertise. An area that it can trust to do important things, that are at a University level." (D.INT1.SM)

In addition, by structuring a library around its key services and moving away from a structure that mirrors the university departments, this was also regarded by some senior managers of functional structures to have the added advantage of protecting the library from having to change its

structure in the future if the university's faculty structure changed. This was one example of how libraries with functional structures were often seen to be more flexible and able to respond quicker to change. However, significantly, a functional structure was also perceived to be more flexible since it was believed change could be implemented quicker without subject librarians.

By moving to a functional structure, where all staff are able to focus and develop their expertise in their specialist areas, there was the implication that the power dynamics amongst the staff in the library could change. In a subject structure, it was acknowledged that the subject librarians often acted as gatekeepers between the academic departments and the rest of the Library, and, consequently, they held a lot of power and control in the library. While this clearly simplified contact for academics with the Library, it had the potential to cause internal tension. One participant managing a functional element of a subject-based structure, described the subject librarians as being "their own little sort of cottage industry" (A.INT2.SM), going on to explain how "[subject librarians] can get territorial...[they] sometimes can be obstructive or feel that they should be taking something on that's somewhere else in the Library" (A.INT2.SM). It was discussed how this could create tension between subject librarians and other professional library staff:

"...there's always a tension that subject people think that anybody working in acquisitions or whatever they call it, technical services, are just being obstructive, and people who do those functional roles just think that Subject Librarians live in a dream world and only favour their department over anything else..." (F.INT7.M)

This participant went on to describe how those in functional roles could find *"that getting the buy in of [subject librarians]"* (F.INT7.M) was often a challenge and provided an example of the challenge the subject librarians had presented when they were involved in the implementation of a new library management system:

"...getting them on board with that was absolutely horrendous. It was absolutely horrendous, and not because they weren't asking relevant questions, but they

were often a bit of a barrier to things happening, because...they wouldn't understand the nitty-gritty of things, because why would they? Because they're too busy trying to do all of these other things, you know." (F.INT7.M)

Accordingly, subject librarians could be seen as a barrier to change when attempting to create a library that was flexible and quickly adaptable.

In comparison, participants discussed being able to respond to changes and implement initiatives quicker and more effectively in a functional structure. The successful implementation of reading list software was cited at a couple of the case study libraries as an example of this. This ability to respond more efficiently was perceived to link to a functional structure having the potential to give more control to senior managers over establishing priorities, since staff had a narrower set of responsibilities:

"...maybe there is more of the top-down in this. It is just easier for managers to sort of take a theme, take a priority, take an innovation they want to deliver and kind of get everybody's buy-in to it because the rest of the team have got the headspace for it." (C.INT1.SM)

This was a sentiment echoed at Case Study F where the senior managers were working with each functional team to develop a standardised approach to services. Remarkably, while senior managers expressed having more control over establishing priorities, in a functional structure, some members of staff also perceived that control was now distributed more evenly across the whole library, rather than being concentrated in the subject librarian role. Consequently, some saw functional structures as having the potential to empower professional staff to take ownership of the responsibilities related to their roles, rather than having to involve subject librarians:

"One element of that is, is trying to get staff at all levels to be dealing with customers, directly rather than indirectly, because that then makes them

accountable and have ownership of resolving things and helping things and developing things with those who you are delivering the services for, rather than acting as intermediary." (D.INT2.SM)

As another senior manager at a different library with a functional structure stated:

"...we're trying something we call unified relationship management, which is that...instead of just relying on a few people, in a few roles to do that liaison and that relationship management we want everyone to do it...They can go as the expert and talk to all the people they need to talk to" (F.INT2.SM)

This empowerment was also linked to increasing the visibility of the services the library provided, with one participant stating how the visibility of their functional division *"skyrocketed and the perception of what they do has...well they weren't visible before, they weren't allowed to talk to the academics" (F.INT7.M)*.

Although, it should be noted that not all participants in functional structures felt ownership or empowerment of their roles and differences emerged depending on how the functional structure had been assembled and how it was managed, with those at some case studies or in some types of functional role more likely to discuss this as an advantage. These differences will be explored further in Section 4.5. However, those who were already in functional roles in a subject-based structure before a functional restructure occurred were more likely to discuss experiencing increased ownership and empowerment in their role, since they directly experienced the improvement. In addition, not only did they feel more empowered to undertake their roles, but they also felt more valued as professional experts in the Library:

"It's given [those in functional roles] more pride and realisation that what they contribute is on an equal footing across the board, because there is that secondclass citizen perception sometimes. There probably still is, but, you know, I don't

think they could argue now that they don't play a very full role in shaping the service, whereas before I think it was dominated by subject librarians." (F.INT7.M)

This is in contrast to those in subject roles moving to functional roles during a restructure who, as already discussed in Section 04.3.1, could actually feel their professional skills are being devalued, along with experiencing a reduction in ownership and empowerment.

4.3.3 Common challenges for both structures

While most of the advantages and challenges of subject and functional structures that emerged were the inverse of each other, some challenges were common to both types of structure:

- Workload
- Silos
- Single points of failure
- Concerns over career progression

Firstly, it was often discussed how subject librarians were overloaded with responsibilities, however, while a functional structure allowed staff to focus on a smaller number of responsibilities, staff in both types of structure identified having a large, sometimes unmanageable workload. As one participant working in a functional structure stated, *"We've just changed emphasis...so, you know, it's only ever going to have a limited effect unless you increase the size of library services, which nobody's going to do." (C.FG).* This was often exacerbated by some functional teams taking on additional responsibilities, although this was most commonly a complaint in teaching and learning teams, which will be discussed further in Section 4.5.3 and also indicated a continued problem with uneven workloads amongst staff.

Secondly, although it has been discussed in the previous section how a functional structure can promote team working internally within functional teams and overcome the problem of subject librarians working independently in silos, in the case studies with a functional structure, participants reported problems with communication between functional teams resulting in the development of new silos:

"There's a challenge that if you break down one set of silos then all you're doing is replacing them with another one, and then that's something to be really aware of...and then make sure that people have got the opportunity to understand what everyone's doing in a way that makes sense to them, and it's not all been plain sailing." (F.INT2.SM)

By splitting up the responsibilities of subject librarians into distinct functional teams, unless definitive mechanisms were put in place to facilitate connections between teams, the impetus to undertake cross-team communication diminished:

"It does change it a little bit, but I feel like people talk a bit less now, which makes me a bit sad. In their teams they talk a lot but across teams we talk less, I don't really know why that is, maybe it's because you're very much doing different things." (C.INT2.L)

One participant even felt the development of these silos was preventing the library from making the *"transformative change" (C.INT3.M)* it was aiming to achieve through the restructure. In contrast, while the relationship of subject librarians with the wider library could be problematic, their role did overlap with other areas of the library, due to their wide-ranging responsibilities, and some collaboration with other staff in the library was required.

Furthermore, while duplication of work was seen to reduce within functional teams, if the role of each functional team was not clearly enough defined and silos had developed this could lead

to duplication of work across teams and tensions developing. This was not identified as a problem at all of the case study libraries, but there was clearly the potential for issues to arise due to the difficulty of dividing up the complex and interconnected responsibilities held by subject librarians. This was particularly the case where engagement had been separated out from the other functions, since it was particularly a problem at Case Study C, but other potential grey areas, including collections and support for taught postgraduate students, were apparent at other case studies as well. These will be discussed further in Section 4.5.

As well as new silos developing in a functional structure, single points of failure were also experienced at all of the case studies, irrespective of their structure. In a subject structure, a lot of knowledge and experience relating to subject areas resides with the subject librarians, with one participant describing, *"…how quickly it unravels when we lose people from the team" (A.FG).* Another stated how:

"...it was very much like a lot of emphasis on one person. So, particularly, say areas like Business and Law, if that person wasn't, the [subject librarian] wasn't here for that area, then we were in a pickle to be honest...(laughter)...If they were off, there was a problem...it meant that no one could really cover those areas because no one else had any knowledge of those particularly." (C.INT2.L)

Single points of failure were a well-known problem in subject structures; however, one clear aim of a functional structure was to reduce single points of failure by increasing team working to cover staff absence. However, this often only reduced short-term single points of failure due to temporary absence. If a member of staff chose to leave, this could still result in a significant loss of knowledge and experience. This is because within each functional team responsibilities had often been split down further, either formally or informally, with some staff leading in areas in order to help with workloads. Furthermore, there were often separate functional roles that had not been structured into teams, which experienced the same issues with single points of failure as subject librarians. At

some of the case studies, it was implied these roles had been structured into an appropriate functional team and successfully worked with the other functional team members to reduce single points of failure despite their different remits. However, sometimes these distinct functional roles were not fully embedded into teams and even short term single points of failure persisted. These problems with single points of failure in functional structures were exacerbated due to the way roles were sometimes created for a specific person during a restructure. As one participant stated, when discussing the potential difficulties of replacing some staff when they left, *"…that's what happens in a functional role if you try and replace like-for-like, and if that role was created in a restructuring to fit the people you had, you've got a big problem." (E.INT7.M).*

Finally, concerns over career progression were also expressed by participants at all of the case studies, albeit in different ways depending on if they worked in functional or subject-based roles. Those in subject librarian roles cited problems for new professionals when looking for entry level subject librarian roles, with one participant stating how managers are *"not looking for someone to develop their skills, [they're] looking for someone who's already there...who has the experience" (A.FG).* Once staff were in a subject librarian post it was also acknowledged that it was difficult to progress to higher levels due to a lack of management experience gained in a subject librarian role and the low turnover of staff. Although, significantly, this could be seen to benefit a subject structure since it meant subject librarians often stayed in the same role for many years, which facilitated the development of strong relationships with academics, yet, it made progression to higher levels more difficult.

In contrast, in a functional structure, while senior managers often discussed how career progression was clearer, other staff often did not agree and still expressed concerns over progression to higher levels. There were also concerns that in a functional structure career options could become more limited, with one participant stating how in a functional structure *"We're getting sent up a little cul-de-sac" (D.FG)*. It was acknowledged that this problem was worsened by

the silos that had often developed in the case study sites with functional structures. One participant stating how *"I feel that the further we go away from doing any cross-over work or exchange of experience or anything like this, the harder that transition out of [name of the Case Study University] library might be" (D.FG).* This was particularly perceived to be a problem for new professionals who had not previously obtained the breadth of experience acquired in a subject role:

"I think in some respects we're in good positions because we've done the subject role for many years and in some respects maybe we were getting a bit stale with that and so this has given us new opportunities...So, we're probably in a unique position, but I agree completely that if you're new then it's a bit of a different picture, isn't it? Because you've not had that." (C.FG)

Significantly, these were concerns expressed not just by those in functional roles, but also those in subject librarian roles who often saw this as a big disadvantage of a functional structure:

"I'd be worried about ending up in the wrong one. So, like you came out of library school and you go down this route, and all of a sudden you end up in the wrong profession as it were, how can you make that leap across into something else if you don't get the opportunity to develop those skills?" (A.FG)

Whilst those who had previously been subject librarians often felt confident in being able to move back to a subject librarian role or into a different functional role, this was not always the case. Some participants felt that the longer you stayed in a functional role, the harder it would be to move to a different function or back to a subject librarian role, with one participant feeling they would *"lose confidence" (C.INT2.L)* in their ability to move into a different library role the longer they stayed in their current functional role. Although, it was acknowledge by some that a functional structure might actually make it easier for librarians to move into roles outside the library, with one participant stating how *"...in a way in makes you more transferable, if you want to be, but less transferable in the library world" (C.INT2.L)*.

The increase in functional roles in academic libraries across the sector was felt to be affecting the career prospects of all librarians, not just those working in functional structures. While managers often expressed the importance of transferable skills and attitude, over knowledge and experience, when recruiting, it was clear librarians were put off from applying for library roles they did not feel completely aligned with their current role and skill set:

"So, you know, it's quite difficult getting the professional role in libraries as it is...especially since the decline of public libraries, and then you've got...uncertain funding around NHS roles and things like that. And then you go into Higher Education and it's kind of like, well, in this university you need these skills and in this university you need these skills. Because I remember reading a job description for the [name of another university] and it started going on about being able to deal with statistics and stuff like that. Whereas, you know, my role doesn't necessarily require those skills" (B.INT5.L)

The diversity of new, usually functional, roles being created across the sector was seen to be causing further problems for career opportunities, since it was not always clear what the roles were. As one senior manager at a library with a functional structure said, *"when we've advertised [for new staff], you'll get people going: 'What is that?' 'I don't know what that is!'" (F.INT1.SM)*. Therefore, overall, in a sector already known for its low turnover of staff and difficulties with career progression, despite an acknowledgement of the greater variety of roles in academic libraries, it was generally perceived that career opportunities for librarians were narrowing, rather than increasing. Some were even beginning to question the need for a library qualification:

"...sometime I think actually in my career to get ahead would different qualification not be...more beneficial. So, for example, if I did want to go down more of the relationship management side, would something from the world of business or industry be more appropriate for that." (A.INT6.L)

The diversity of current roles was exemplified when looking at the six case study libraries in this research. These academic libraries could not be said to have chosen a standard subject structure or a standard functional structure, each had taken a different approach to changing their structures and incorporated elements of both to varying extents to create a variety of structures with a wide range of varying roles between them. These different approaches taken, as well as the resulting structures and roles, will be explored in the next section.

4.4 Incremental change vs restructures

The previous section explored the general advantages of subject and functional structures. However, all of the case studies had incorporated elements of both types of structure, with many participants across all the case study sites actually identifying their structure as a hybrid structure existing between the two extremes. In many ways, this can be seen as a way of trying to balance out the advantages and challenges of each. However, at case studies A and B changes had been made incrementally to the existing structure, with subject librarians being retained, whilst at case studies C to F a formal restructuring of subject librarians had occurred resulting in these librarians being split into functional teams. Yet, in each case, the resulting structures were unmistakably distinct. Below is an examination of these two approaches to changing structures observed at the case study libraries, along with how they were used to combine both subject and functional elements.

4.4.1 Reviewing structures & incremental change

As previously mentioned, while case studies A and B had not undergone a restructure and still had a predominantly subject-based structure, significant incremental changes had been made to structures, roles and ways of working in order to respond to the common drivers discussed in

Section 4.2.1, as well as attempting to overcome some of the challenges of subject-based structures. As stated by one participant:

"So, to say that it's kind of like, we want to stick to this traditional role and we don't want to change and things like that isn't true. It's just kind of like, [a functional restructure] makes it look like they've made a bigger change than they have. Whereby other universities might be making changes in a slower progressive, more functional manner, and to the outward observer it may seem like they're still doing the same things the way they are, but roles have changed quite considerably. It just looks like the same kind of structure..." (B.INT5.L)

In terms of the subject librarian role specifically, one participant even felt that *"the traditional role of a Subject Librarian doesn't exist anymore" (B.INT1.SM)*, both at their own library and also other academic libraries that had chosen to maintain a subject-based structure, due to changes that had been made to the role. Therefore, incremental changes that had occurred, or were in the process of being implemented, at case studies A and B included:

- Incorporating functional roles into the structure, especially research support roles
- Attempts to overcome problems with subject structures and create 'non-traditional' subject librarians
- Optimising current staff by amending roles and moving staff around in the structure
- Reviewing roles when staff leave
- Incorporating staff with different skills from outside the profession, but in roles
 distinct from librarian role

Incremental changes at Case Study A

With no formal restructure having taken place, many small, incremental changes had been made over the years in order to align with the changing needs of the university and shifting strategic objectives:

"...we need to [be] future-proof...it's never a done job...which is not to say, as well, that you're changing constantly, because that wouldn't lead to effective service. People would feel very disorientated, very anxious, very threatened. You have to make changes, communicate them well, have a two-way dialogue, let them bed in, but at senior level, you've always got to have that weather-eye of what else is coming...I think because the leadership has been clear-sighted it has kind of felt organic. It's not been everything as you were and then, oh my lord, we'll have to change because our core work's disappeared." (A.INT1.SM)

It was acknowledged that some of these incremental changes were moving the library away from traditional library services in some ways, without the need for a full restructure:

"Where are the, you know, the areas that are working well? And we evidence that. Why would you change them? But are there areas where either there are directions in the strategy that we don't feel we're fully aligned to or [we] don't have capacity...areas where demand is diminishing for those traditional services? So, we need a development path, and it's trying to map all of those things out in a very cool, calm, logical way and then think what might we adjust to optimise the configuration, and particular as well, in the challenging climate where if I went into the Registrar and say I need 15 extra staff, you know, that's unlikely to be resourced. So, the other thing is, optimising the staffing you currently have..." (A.INT1.SM)

This optimisation of staff, involved regularly reviewing the structure and rearranging the current staff to fulfil changing needs as the opportunities arose, since it was clear that while the Library had not undergone any severe budget cuts, it was unlikely they would be allowed extra funding for staff. Although, some new research support posts were paid for by research support funds external to the Library. However, this incremental approach also included *"recruiting a different kind of staff" (A.INT1.SM)* as posts became vacant who were deemed to possess the skills and knowledge senior managers felt were becoming increasingly important. This dual approach to gradually developing the organisational structure though optimising current staff and bringing in new staff when possible had led to a balance between subject-based librarian roles and functional roles developing. While many still identified the Library as having a subject-based structure, particularly those in subject-based roles, the existence of more functional roles providing academic support services had resulted in some participants identifying the overall structure as being a hybrid structure.

In terms of the subject-based roles, it was perceived that incremental amendments had been used to try to overcome many of the challenges of subject-based teams, discussed in Section 4.2.14.3.2, and created a team of subject librarians that could not be labelled as traditional. While the library had retained subject-based librarians, as stated by a senior manager of the Library when asked if they identified the structure as subject or functional-based:

"Yeah, I mean, it is broadly subject but I think we've long moved away from the idea that you're the [subject-based librarian] for Economics, because that just isn't sustainable and it puts a level of expertise and expectation in an individual that I don't think is helpful for the service." (A.INT1.SM)

In the focus group, a participant also recognised this change:

"We're not old-school subject. So, like old-school subject would be one librarian looking after Music and that would be it." (A.FG)

Therefore, the subject-based librarians supported a wide range of different subjects within their Faculties. It was acknowledged that this was not only because some subjects, such as Business, would be too big for one librarian to support alone, but also because it reduced single points of failure. Therefore, the intention was that *"[t]here may be an individual that takes a lead in a different area...[but] actually all of them will be able to provide cover across those Schools, because you have to have that flexibility." (A.INT1.SM).* This ability to cover different subjects and reduce single points of failure was also achieved through the rotation of the assistant role to give the staff experience of supporting the range of different subjects and the opportunity to develop the *"full range of skills" (A.FG)* associated with this.

This aim of reducing single points of failure was linked with the subject librarians being structured into teams in order to promote team working. Altogether, there had been a conscious effort by senior managers to manage this area of the Library *"much more as a team now" (A.INT1.SM)*. This had been aided by having the Faculty Team structure, rather than individual subject librarians structured into one team, as well as creating the rotating assistant librarian role, which was intended to *"develop talent by enabling people to work more closely together in teams" (A.INT3.SM)*. Although, it should be acknowledged that some participants did still recognise that problems with team working did still remain, with one stating how, *"you can just go off and do your own thing, and not necessarily know what anyone else is doing." (A.INT4.L)*.

Along with trying to improve team working and reducing single points of failure, attempts had also been made to reduce other problems associated with subject librarians, such as being overloaded with responsibilities. Within these teams, the responsibilities had been split between the senior and assistant level librarians within the team. Significantly, these assistant roles had been created partially by reducing the number of staff at the higher-grade role as staff members naturally left for other employment or retirement. It was acknowledged that the assistant role was not only created as a developmental role, *"but also to help with some of the teaching load" (A.FG)*, since

"there was a huge gap because student numbers were going up and we could only offer so much support" (A.FG), as well as a growing need to provide online teaching resources.

The assistant librarian role was, therefore, created to take on the increasing teaching load, with the intention being that the senior role would be freed up in order to *"more engage with the research-side of things" (A.INT3.M*) and undertake *"strategic collection management" (A.INT6.L).* Although, it should be noted, the assistant librarians were given the opportunity to support the activities undertaken by senior librarians and encouraged to *"act up to the next level" (A.INT1.SM)* to cover spells of leave, both to provide development opportunities and again reduce single points of failure. The job descriptions illustrate this distinction between the different roles as the purpose of the senior librarian role was stated to be:

"To liaise with designated Academic Schools within the Faculty of...to acquire, develop and promote library resources and services to support the learning, teaching, research, and engagement activity of the Faculty"

While the purpose of the assistant librarian role was to:

"To contribute to the Library's support for learning, teaching and research by designing, developing and delivering a wide range of information literacy teaching; to create teaching materials and resources both online and in print; to deliver training in the effective use of information resources; to coordinate and provide support for specialist research tools and resources."

Significantly, the emphasis of the assistant librarian role on teaching led one participant in this role to state, *"I know it's not a functional role but we have a very focused role" (A.FG)*. This, therefore, could be seen as an attempt to improve focus, often attributed as an advantage and driver of a functional structure, without completely abandoning the subject-based approach, and contributed to some participants identifying the structure as being hybrid.

There were also other attempts made to reduce the workload of the subject librarians, predominantly by attempting to remove as much of the administrative work from the role as possible, with much of this being taken on by the Library Assistants who had been incorporated into each Faculty team. In addition, while collection management and engagement was still a large part of the senior librarian role, some of the responsibility for collection management had been removed. The technical division of the library now had responsibility for activities such as renewals and meeting with external vendors, and some collection management activity was now being achieved using information systems, such as those providing reading list management systems and formula-driven purchasing. It was also acknowledged that the librarian roles were not as varied as those in some other institutions could be where they would be expected to know everything about the running of the Library:

"I joke about it, I wouldn't know how to issue a book manually to somebody. I wouldn't know...well off the top of my head I couldn't tell you how many books you can borrow... There is a disconnect for me, and for my last job I knew everything. So, I was expected to be able to issue a laptop. I was expected to be able to jump on the main desk at any point in the day and deal with every single thing that came along. And it was such a relief to come out of that into this...as a library the different teams have quite defined roles. So, it means that although our liaison remit is really wide, actually it is very separate to what Technical Services do and what Customer Services do." (A.FG)

Related to this was how efforts had been made to transform the nature of other roles and teams within the Library so that many traditionally 'back-office' roles were increasingly allowed more freedom to become much more outward facing. This included the more technical-focused collection management, systems and functional research support teams, as well as Special Collections and Customer Services, all being encouraged to liaise and collaborate with academics

and students independently to the subject-based staff to improve services. Similar to the rationale around many of the functional structures at other case studies, it was believed they were the experts in their areas and needed to liaise with the users to really understand their needs and improve services. However, it also alleviated some of the pressure on subject librarians to liaise for the entire library, with one subject-based participant stating how *"there's less reliance on us anymore" (A.INT3.L).* It could also be seen to reduce the challenge of subject librarians becoming 'gatekeepers'. However, effort was also taken to promote cross-team working amongst the library teams to avoid silos developing:

"So, I think one of the things I want you to take away in terms of our structure, is that the boundaries are porous. That we encourage people to make connections." (A.INT1.SM)

In order to undertake some functional activities, all of the librarians were also expected to participate in library-wide teams and projects, which related to the Library's strategic objectives and priorities and were assigned based on staff strengths and interests. Yet, it should be noted that membership to these project teams was also monitored to ensure librarians were not becoming overloaded.

As well as changes to the subject-based roles, at Case Study A, functional roles had also been incorporated into the structure, which had predominantly been filled by staff without library qualifications. These included staff with PhDs in research support roles; Learning Developers, again with PhDs in a separate academic skills support team; Learning Technologists in some fixed-term roles; and staff with teaching qualifications in outreach roles. Therefore, this library had brought in new staff with different skills, experience and knowledge to the library without having to employ a functional restructure.

By establishing these roles, the aim was to not only avoid overloading the subject librarians, but also bring in an element of consistency and focus to the subject-based model, particularly for

research support, which is perceived to be characteristic of functional structures. As one participant described, the establishment of the functional research support roles were a:

"...response to funder requirements, monitoring support and compliance. Taking the admin burden away from researchers, maybe...That sort of standardisation of, and the message, a consistent message..." (A.INT5.M)

Therefore, this type of work was not seen as a *"natural fit"* (*A.INT1.SM*) for the subject-based librarians, as well as feeling they did not have the capacity. As stated by one participant:

"...that's much more functional than it was before because, certainly at one point, there was an expectation, I think, that [subject librarians] need to become experts on Open Access publishing, but certainly from my point-of-view, I didn't think that was ever really particularly feasible to do." (A.INT2.SM)

Previously, open access had been given to one of the subject-librarians as their area of extra responsibility, but this had been removed with the addition of the functional open access post. As one participant argued, the establishment of the functional research roles meant the work the subject-based librarians were expected to do had reduced in order to make the role more manageable:

"There was this thing, a [subject librarian] is expected to do absolutely everything and be everything to all people, and that's just not feasible. I think what's probably happened over the number of years, and it's not just here, is people have been, we've stripped back a bit on what [subject librarians] are expected to do...I think that that's got to a reasonable point at the moment, but it sort of depends what's on the horizon in terms of research support in what they can feasibly add to their portfolios, now we've got them to a more manageable point." (A.INT2.SM)

In terms of the formation of a functional academic skills team in the Library, there was the clear intention to create an identity for the Library as *"a destination for conversations about teaching and learning" (A.INT7.M)* for academics, as well as developing the Library into a clear, central destination where students could come to seek out help with their studies. This was comparable to the driver for creating a functional structure around creating a clear and unified offering of student support, although in this case the decision had been made to keep the librarians and the academic skills team structurally separate.

Incremental changes at Case Study B

Similar to Case Study A, at Case Study B significant incremental changes had been made to the structure in order to reorient the library service without forgoing a subject-based structure. Again, this focused not just on the subject-based element of the structure, but the whole library:

"I think all parts of the Library Service need to be reviewed. So, we're not just focusing on the [subject librarians], we're also looking at some of the backroom, [Finance] teams and processes, frontline [Customer Services]. I think it's very healthy to just constantly review and so I wanted to say to them that you're not being singled out. It's part of an ethos that we have of just making sure that we're operating the best that we can" (B.INT1.SM)

This approach had involved constantly reviewing roles as they became vacant across the library service:

"So we've put 2 extra people in research support. We've also put more resource into [the technical division]. So, those are the two areas that have grown. Meanwhile, in order to do that, we've taken a bit of resource out of other areas, because we haven't been given any additional resource. So, basically, every time we have a vacancy we look at opportunities. Do we really need that, to replace

that like with like? Is there something else we can do with it?... Meanwhile, we've taken opportunities to reduce, when people have retired or whatever, or left, to reduce the amount of time, staff time, going into the traditional print – checking of serials, and that sort of thing" (B.INT2.SM).

The opportunity to undertake some reorganising of the structure had come with the closure of some University sites, which, most notably, had allowed for some staffing resource to be moved from the subject-based roles in order to further grow the research support team and create a marketing role. By creating these functional roles, the aim was to reduce the workload of subject librarians and allow the staff in these roles to focus on these activities. In relation to research support, a senior manager stated how:

"...the [subject librarians] are given quite a lot of information about, you know, what the current state of play is in research data management, open access, the preparations for the REF and so on, and...but they're not expected to be the real experts in those areas. So, they are encouraged to refer to colleagues [in the research support team]" (B.INT2.SM)

It was clear that these functional roles had at least partially been created to bring new skills into the library. This was particularly the case for the marketing role, where it was not a requirement to have a librarianship qualification:

"One of the reasons for having a [marketing role], and wanting one with a marketing and comms background, is that, I think in the past, you know, you expected Librarians to do everything. You expected librarians to do the HR stuff, you know, manage the security, manage the IT, manage the marketing and all the rest of it, and actually you can't expect librarians to do everything and we used to have some pretty shoddy marketing going on. And we need somebody who's actually good at that." (B.INT2.SM)

As well as the new marketing role, the reviewing of roles had also resulted in changing the need for a library qualification from essential to desirable for some other roles in order create the opportunity to bring in staff to the structure with new skills and experience, particularly in customer service, technical and systems roles. Yet, significantly, as with Case Study A, for at least some of the subject-based roles a library-related qualification was still essential.

In addition to making these incremental changes to the structure, again attempts were being made at this case study to address many of the challenges associated with subject librarians, particularly concerns over team working, single points of failure, inconsistent service and workload. Firstly, like Case Study A, these subject librarians were structured into teams in order to promote more of a team-working environment and move away from the challenge of librarians traditionally working independently from each other. As one participant stated:

So, there's kind of an expectation of, say if was off for a week of something that if, say, a query came in for a student that it would be picked up by somebody else within the team. So, we do our specialism but we operate within the wider team as well. So, we can support each other" (B.FG)

This team approach included helping each other out with teaching sessions and one participant also noted how there was *"more of a team approach to queries" (B.INT7.L)*, with team email addresses being used to avoid single points of failure.

In terms of reducing the workload of subject librarians, when other roles in the library had been reviewed or created, such as customer service, technical, systems, research support and marketing, their responsibilities were broadened to include areas that could, in other libraries, lie with the subject-based roles. Similar to Case Study A, efforts were made to remove administrative tasks from subject librarian roles by allocating them to non-professional staff, which had resulted in huge changes to these non-professional roles:

"...we expect a lot more of them than we used to. You know, donkey's years ago, when I was first in the profession, your support staff would really need to be able to issue books using the automated system and search the OPAC and that sort of thing and there was an awful lot of sort of admin work around processes reservation cards and guiding people and helping people find things on the shelf and shelving and straightening stock and very much around physical materials. Nowadays, we would expect them to be proficient with Office applications and use spreadsheets and help us analyse data and use systems like reading list systems to set up and edit reading lists." (B.INT3.M)

In terms of more equally sharing out workload and improving consistency, a programme of open workshops had been established in the library, which consisted of general teaching sessions that were not tailored to specific subjects and covered the basic library and information literacy skills sessions. Therefore, students from any subject could book onto them and all of the subject librarians were expected to teach the sessions on the programme. This ensured that there was a consistent provision of core teaching sessions available to all students, with the more subject-specific sessions being tailored to the needs of the academic departments by the relevant subject librarian. In order to reduce workload and undertake some functional activities, all of the librarians were also expected to participate in library-wide teams and projects. Included in these teams was a referencing team and a referencing management software team, who were responsible for the related teaching sessions for all subjects, again to reduce workload and ensure a consistent service delivery.

Significantly, at this case study site there was also a lot more levels of professional subject librarian posts than at Case Study A and, therefore, there was a lower starting salary for professional staff than at any of the other case studies. As one participant identified this had resulted in a higher turnover of staff than at other academic libraries and more newly qualified librarians in post, who they perceived as being *"quite enthusiastic...quite innovative"* (*B.INT5.L*), and were, therefore,

pushing the library beyond conventional library services, particularly regarding teaching methods. This is in contrast even to other case studies, where it was commented how it would be unlikely for posts to be filled by a new professional.

In addition to all these changes, at this case study, a new Deputy Head of the Library had recently been appointed who had questioning the subject-based approach, but had come to believe the subject-based approach suited this institution. However, they wanted to "take an opportunity to stand back and review it and just see if we can make it better" and "demonstrate to the University" that these are professional staff with a wide range of skills that could be useful to the University beyond their traditional library work" (B.INT1.SM). Therefore, they were reviewing the subject librarian role further and trying to *"remarket the post" (B.INT1.SM)*, predominantly in relation to improving consistency of service across the subject librarians. As they stated, they wanted to "challenge" and "shake up" the role, as well as "encourage them to let go of some of the old practices" (B.INT1.SM). This had involved working collaboratively with the subject-based teams to review and compare the work carried out between them, and try to establish an understanding of what should be the core offering and priorities of all of the subject librarians, while still acknowledging that some subject may require extra services and support. The predominant aim of this review appeared to be to ensure that subject librarians were not spending too much time on collection management activities that could be passed on to non-professional staff and focusing on direct user support, particularly teaching activities.

4.4.2 Formal restructures around functional teams

For both case studies A and B, these incremental changes to the structure and the refocusing of the subject librarian roles were deemed to be successfully repositioning the library to be able to respond to new challenges. Therefore, while it was acknowledged that there would always be some disadvantages to a subject-based structure, it was felt at these case studies that a restructure, particularly around functional teams, was not necessary:

"So, while there are, have been particularly some drawbacks in the structures that we've got now, I think a lot of those have been ironed out, and I don't perceive that there's a need, that there's something really lacking so much that...we would need to really take it on in a big way." (A.INT2.SM)

However, in contrast, for case studies C to F, while prior to the restructure incremental changes had been occurring there was the perception these changes were not sufficient and a restructure was required:

"So, the whole thing had grown very organically in response to this government...this change in university funding driven by the government...bits have been added on. We had to stick people in where there was management capacity...In some cases, colleagues were acting up...but there were lots of temporary fixes, sticking plasters..."(C.INT1.SM)

The case studies that had undergone a functional restructure had made similar attempts to case studies A and B to change their structures before the decision was made to undertake a functional restructure. These changes had included adjustments such as rearranging the subject librarians into teams and creating some technical-focused research support roles at Case Study C and implementing a matrix structure to support the separate teaching and research agendas at both case studies D and F. However, it was felt these changes had not gone far enough and the decision was taken to restructure around functional teams.

Nevertheless, significantly, even when the decision was taken to undergo a functional restructure the processes and results were not the same for all the case studies. As stated by one participant, *"I don't think even the term functional is interpreted in one way" (C.INT6.M)*, which was

clearly illustrated by the diversity in the functional structures at case studies C to F as shown in the overview. While at all of these case studies it was recognised that a functional structure had been implemented, just as case studies A and B had included functional elements in their structures to in an attempt to balance the advantages and disadvantages of each structure, an element of a subject approach was often incorporated into these structures. As one participant stated, *"supposedly we have no subject function whatsoever, but it's very difficult to get away from" (C.INT4.L)*. As another participant described *"...we moved towards what you would probably think of as a more functional structure but within both of those teams...for liaison, business relationship purposes with the university, we retained subject roles, which are at a very high level" (D.INT1.SM). This same participant went on to argue that:*

"...you might in the library be aware of the million and one complex things that you're having to do to deliver your services now, but it really doesn't count for much if you're not managing the relationship with the university, and that means the library fits in with where your customers are. You don't expect them to fit in with you...You have to be part of their world, and I think to do that, you need to maintain a veneer or a layer of subject...in order to manage that relationship with your customer, which is what we do with this hybrid model we've got." (D.INT1.SM)

However, the way case studies C to F incorporated this subject element was one significant way their structures varied, with case studies C and D opting for the incorporation of a formal subject alignment to their structure in order to engage with academic departments, while Case Study E had developed a more informal subject alignment. Case Study F was the only one not to have any intentional subject alignment, although even within some teams, particularly the teaching and learning team, some informal splitting of responsibilities by subject still occurred. These different approaches will be explored in more detail in Section 4.5.

In terms of the process of undertaking the restructure, both case studies C and D, which significantly were the two that were not required to make cost saving during the restructure, did not make anyone redundant and, therefore, slotted staff into the new roles based on staff preferences and perceived fit for the roles. This meant that senior managers could not make any drastic changes to job descriptions; otherwise, staff would have had to reapply formally for roles:

"...we just moved the paragraphs around in between different job descriptions...we didn't totally rewrite them and that's partly because we did this in, we took an informed approach to restructuring. So, we didn't say to everybody you've been made redundant, you know, you've got to reapply for your job. We did it with...making modest changes to job descriptions just taking out bits or putting bits in really...So, the requirement of, what we expect are, because of that approach, are broadly the same. We took the position that people were doing in their new roles what they always were doing. They're just doing more of it and in a more focused way" (C.INT1.SM)

Significantly, it was noted that as a consequence of this approach, *"the JDs probably don't actually match what's happening" (C.INT3.M)*.

While, in contrast, case studies E and F had to make cost savings and, therefore, some redundancies were made and staff had to reapply for the new roles. The impact of this was that where staff had to reapply for the new roles, senior managers were able to make more extreme changes to job roles and descriptions than the ones where staff were slotted in to new roles. This was because, in order to allow for staff to be slotted into new roles, the new job descriptions had to match to a certain extent the old subject-based job descriptions, and this could be one reason why case studies E and F have organisational structures further towards the functional end of the subject-functional spectrum. The further impact of these choices when undertaking a functional

restructure and differences between the resulting functional structures, which is demonstrated in the overview of the case studies, will be explored in more detail in Section 4.5.

It is also noteworthy that a formal restructure was not the end of the process and for most of the case studies further reviewing of the structure was required and amendments had subsequently been made to try to overcome some of the disadvantages that emerged, which were discussed in Section 4.3.1. At Case Study D, this had involved creating extra academic skills posts and a new Research Data Management post, with a similar new research support post being created around research data management and bibliometrics at Case Study F. At Case Study F, the decision was also made following the initial restructure to combine support for students and researchers into one team into order to reduce crossover and duplication of teaching sessions. While at Case Study E amendments had involved rearranging line management responsibilities and creating a new collections engagement post to fill a gap created by the restructure. As one participant stated, "We're in a really good position now after going through a year of work as to think about what do we need to tweak to make people happier in the workplace and make things work better" (E.INT5.L). Significantly, these reviews also did not just involve amending the structure, but also making other changes, for example, following a review at Case Study E a piece of work was undertaken to try and improve the workplace culture. In addition at Case Study E, the remit of the teaching and learning team was amended so that they could liaise more directly with academic departments and undertake more tailored, embedded teaching, which was felt had been lost.

It was only Case study C that had not undertaken a review and made changes since the restructure, probably because the restructure had occurred more recently than at the other case study sites. However, it was noted by one participant how *"we're probably getting to the stage where we need to tweak it to make it work...and learn by the experience we've had" (C.INT4.L).*

Some participants from libraries that had not undertaken a restructure viewed these reviews as an indication of the failings of a functional restructure:

"...they've gone through various restructures since, because they've found that, you know, it's like an ongoing process, an iterative process, and they found that other people weren't, you know, perfect for the roles that they were in. So, they're constantly chopping and changing and things like that" (B.INT5.L)

At Case Study E, there had been an acknowledgment that the first iteration of the structure had its problems, with one participant describing how:

"we'd gone a little bit too down a, kind of, businessy route and a professional route and a functional route, and it was working really, really good for the building and day-to-day practice, but it kind of lost its academic soul a little bit" (E.INT5.L).

Therefore, an effort was being made to bring back some of the focus on supporting academic departments more directly:

"So, I don't think, there's an extent to which neither of them is perfect and, I suppose, it's just understanding when you have to remind yourself, ok, we focus too much on ourselves, let's think about what that means for the academics. I think we've got better at that actually as we've got further into this functional structure, which is about, let's forget about a process, let's try and remember what benefit or value we're trying to set up, in inverted commas, to our academic colleagues ...what does that do for them that they would care that we even exist. So, that's the bit we're trying to unpick now, but I think it's taken us awhile to get there" (E.INT7.SM)

However, it was noted by managers at the libraries where functional restructures had taken place how these reviews and amendments were not only in response to overcoming challenges with the

functional structure, but were also required in order to respond to ever changing circumstances, the same as any academic library:

"There's an expression, which is, you know, things have never moved so quickly and they'll never move so slowly again, and I think that's quick accurate because if you look at the change in the external landscape...you know, in terms of what organisations have to do to respond to that, in terms of what technology allows us to do. Then we can change more often and we're going to have to." (F.INT2.SM)

4.5 Different types of functional teams

In Section 4.3 the general advantages and challenges of functional structures were explored, however, it was noted that some these were experienced differently depending on the remit of the functional team. In addition, as was described in the previous section, none of the functional structures implemented at the case study sites were the same, and some functional elements were even being incorporated into subject structures. The process of creating the functional structures also differed. Therefore, this section will explore the implication of these differences on how the different types of functional team operated and the advantages and challenges they each faced.

4.5.1 Engagement and collection roles and team

Each of the case studies, C to F, with a functional structure had different approaches to engagement, including engagement around collections management. These different approaches are detailed below. Although, it should be noted that any collections roles and teams discussed here are in addition to acquisitions teams and are distinct because they include some element of engagement around collections:

- Case Study C: There was a separate Engagement team, consisting entirely of former librarians, who were aligned to subjects. Part of their role included responsibility for engagement around collections.
- Case Study D: There was no separate engagement or collections management team.
 Engagement and collections were the responsibility of both the Teaching and Learning
 Team and the Research Support Team, with both teams having at least some staff who
 were subject aligned. Of the staff in these teams with engagement and collections
 responsibilities, the majority were former subject librarians.
- Case Study E: There was no separate engagement team; instead, there were virtual teams where groups of staff from across the library were assigned as contacts for different subjects. There was also a small collections team consisting of a team manager, who was a former subject librarian; a new role focusing on engagement with all academic departments regarding the use of Library collections in teaching and course design, who came from a teaching background; and metadata specialists.
- Case Study F: There was a separate engagement team, however, this consisted of just one professional role and was not subject aligned and was more of a marketing role. All teams were encouraged to engage with academics regarding their areas. There was also a separate collections team. The staff in the professional roles in both the engagement and collections teams all had library qualifications.

At these case studies, it was generally these areas of engagement and collections management where it was felt gaps had appeared in the service offered by the library compared to what had existed when there was a subject-based structure. As one participant stated:

"From a collections point of view, I think we felt that, or still feel that, there aren't as many, the links aren't as good as they could be...but again I think the difference there is...is that from a [Research Support team] point of view and from a [Teaching and Learning team] point of view, we were starting from a blank sheet of paper and therefore we were sort of just putting in place what we felt was appropriate at that point in time, and to that extent it seems to have worked pretty well. When it comes to collections, because that was tied into [Subject Librarians]...and because it's so closely tied into how we used to operate things, I perceive that staff in that area maybe think that they've lost something that they might have had" (E.INT3.SM)

The same could also be argued to be the case with engagement, which is also a key element of the subject librarian role.

In terms of engagement at Case Study C, it was acknowledged that the Engagement team now had more time to dedicate to liaising with academic departments:

"the massive advantage is sort of workflows and time and consistency. So, the people I manage previously in the autumn term, they just did training. So, we couldn't think about projects. If they got an important email from an academic, they couldn't give it the time they needed, couldn't prepare for meetings. So, the reverse is now true, like, they've much more even workloads, can prepare for meetings" (C.INT3.M)

However, it was also acknowledged that there was a risk that the role of this team could be ambiguous, especially when compared to the Teaching and Learning Team and the Research Support Team. As the manager of the team stated, *"I think the internal communication around roles is the biggest challenge because it's people not really understanding what Engagement is or what we do" (C.INT6.M)*.

This ambiguity was worsened due to the overlap between engagement and the other functions. Many participants from across the case studies expressed this as a potential concern of a

functional structure with a separate engagement team, with one participant stating that *"I think it would be hard to do, to separate out academic liaison completely on its own apart from teaching and research" (A.INT6.L)*. This challenge was clearly being felt at Case Study C, particularly because most of the staff were former subject librarians who were used to undertaking their own engagement activities. As the line manager of the Engagement Team stated:

"I think it gives the potential to engage strategically with the institution better, but part of my reservations are that I think it requires a kind of cultural change in the library that hasn't really happened. So, the [Engagement team] represent the whole Library, and yet there's lot of engagement going on that we don't even know about. So, it's very difficult then." (C.INT3.M)

Communication issues between the functional teams and silo working were clearly compounding the problem, with the Engagement Team not always feeling *'kept in the loop" (C.FG)*. One participant even described it as *"a bit embarrassing when you'll go to a meeting and then realise they've already spoken to your colleague in the Library but...they've not mentioned it to you". (C.INT2.L)*. The manager of the Engagement team felt there were a number of factors contributing to this problem:

"So, we haven't got the internal governance to share best practice. We haven't got a CRM system. So, it's systems, it's governance as well. So, and I think understanding. A lot of teams carry on engaging from their thing they're doing...and then they don't, sort of, see that they need to be part of a wider engagement strategy." (C.INT3.M)

Significantly, one member of the Engagement Team also perceived a tension to exist between the Engagement Team and the other functional teams due to their intermediary role:

"...if I went to a School and they were like 'oh, we'd like loads of training sessions please' and it would be up to me to then to my colleague and go 'oh, turns out

that [subject] would really loads of training', but it's not me that has to deliver it, they have to deliver it. So, you know, there's that kind of slight awkward, like, I've created all this work for you...I'm not actually going to be the one who delivers it, because it's not my job. So, whereas, so it can, I don't think it was too much in that way, but there was just a slight awkwardness, because you can't take responsibility for something completely in my role anyway, particularly in the engagement, you're kind of, well, you're sort of, everything trickles through you" (C.INT2.L)

There was also an implicit tension specifically between the Engagement Team and Teaching and Learning Team, stemming from how the teams had been established, since some staff had not ended up in the roles they wanted, and which could be adding to this tension. This will be explored further in Section 4.5.3.

In contrast to Case Study C, at Case Study D, a completely different approach to engagement had been adopted:

"Well, I mean the Academic Engagement bit essentially is merged into [the Teaching and Learning and Research Support Teams]. I think it's quite difficult to separate out your engagement from your more specialist roles, because in order to apply the specialist roles you need to engage with the academic staff to understand what they need and what they want." (D.INT2.SM)

However, as a senior manager stated, this was only so they *"retained something of the appearance at least of a subject responsibility" (D.INT1.SM)*, with another team manager stating how it's more about *"...who's got responsibility for picking up an enquiry that comes into the team...rather than them being an absolute subject expert." (D.INT4.M)*. It was acknowledged that this arrangement meant that academics had numerous named contacts and while *"95% of the time there's...when you need to interact with a customer there is a clear separation between the two teams and what they*

do, it's not 100%" (D.INT1.SM). It also meant there was still some uneven workloads between staff members. Yet, generally, this approach was seen to be an advantage, particularly for the Research Support Team, as they were able to engage strategically as experts. However, there were some issues for the Teaching and Learning Team, but this was often attributed to workload and will be explored further in Section 4.5.3.

In many ways, Case Study F can be seen to have amalgamated the two approaches to engagement seen at case studies C and D. Similar to Case Study C, they had a separate engagement role, which was felt to be important in order to create an obvious way for users to contact the library and access its services. In addition, this approach avoids having a faceless service following the loss of subject librarians. However, there was no subject alignment and it did not have the same all-encompassing, strategic engagement remit, instead focusing on marketing, library reports and signposting, with the other functional teams were encouraged to undertake engagement work more independently of this separate engagement role, although, again, without any formal subject alignment. However, it was expressed by some that they felt more removed from users and it was also acknowledged that there were problems with engagement being more fragmented, but as one participant acknowledged, what was required was "*probably...us communicating better amongst the teams and making use of [the Engagement team]*" (*F.FG*).

Despite the clear problems around engagement at case studies C, D and F, it was clear that Case Study E had experienced some of the largest challenges, since the lack of clear roles dedicated to engagement had resulted in a *"sudden lack of liaison with the academics" (E.INT4.L)*. As one participant stated:

"...certainly the [Subject Librarians] collectively felt that it was a bit of a backwards step, because they'd got to the stage of being sort of, having really good relationships with the Faculties they were working with and in some ways it would have been nice to be able to continue building on those, rather than completely

disbanding the team and distributing the members of that team across various other parts of the Library." (E.INT6.L)

While the virtual teams had been created, they were not perceived to be effective since they were reactive to contact from academics, rather than proactively engaging. After all involvement in these teams was in addition to staff members' main roles. However, this loss had been identified and senior managers were trying to rebuild engagement through the creation of the new role focusing on engagement with academic departments around the use of Library collections in teaching and learning, as well as allowing the Teaching and Learning Team to proactively engage with academic departments to embed sessions in courses. In many ways, the new engagement role was aiming to replace some of what was lost when subject librarians were removed:

"...when you are subject-based you have this lovely opportunity...understanding how they work, but you also, by association, you start to use their professional language, you use their jargon, you kind of get to be seen as one of their subject team, and that allows you a level of access and trust that when you're in a functional role, it's harder for academics to see where that value comes in, because you just don't speak their language by and large...and I guess that's why potentially...we ended up with a...[teaching and collections engagement] role...If that role picks up and uses that language and reflects it back to colleagues, you get more buy in" (E.INT7.M)

Whilst it was felt they were now just building up areas of engagement that had previously existed and had been dismantled in the restructure, there was an appreciation for now increasingly *"having the librarians trusted to go off and experiment with and explore opportunities"* (*E.INT7.M*). Although, it was felt by one participant that *"the communication between us and academics is probably more based on personal relationships than it should be"* (*E.INT5.L*), which could potentially lead to inconsistencies developing again.

In terms of engagement around collections, at Case Study C, the engagement team also had responsibility for collection management; however, it was felt that they were unable to offer much support to academics in this beyond teaching them to use the reading list management software. This was attributed to the fact that while this team was aligned to subjects, the large number they supported along with the fact a conscious effort had been made to separate staff from any subjects they had supported in the past, meant a significant reduction in knowledge of subject collections. One participant stated how:

"...the area that's less clear, I think, is kind of like collections and...how, so no one really is responsible for knowing about the depth of collections anymore, in any of our team, because our team we can't really do that because we're sort of broad. We've got a lot of Schools we have to kind of engage with...So, we can't really know every single resource and then our colleagues don't really do that now either. So, there's no, there's, we're got a few gaps I would say, that's kind of the less effective side of things...So, say an academic was like 'oh, can you recommend some new resource to me', no one can really do that now or have the time to think about that or really know anything that in-depth, I suppose. So, kind of lost, in terms of collections, they've lost that, kind of, expertise" (C.INT2.L)

However, this loss in collections support went beyond not being able to recommend new resources, but also included no one taking ownership of the resources that were bought and promoting collections to academic department, which some participants felt could lead to a reduction in the use of some resources:

"...at the end of the day we might buy a new collection and nobody really knows what it is or owns or a feels an affinity with it, so it probably won't get as much use as when a [subject librarian] knew it and cared about it, and so I think the

impact internally on collection management and development is probably under...is not talked about enough." (C.INT3.M)

Although, it was also questioned by some participants how much knowledge Subject Librarians had of their subject collections anymore, and one senior manager of a library with a subject-based structure even stated how subject librarians should be *"really focused on teaching and research. Sometimes the bit that gets squeezed is collection development" (A.INT1.SM).* Therefore, differences in opinion regarding the gap created in the functional structure around collection management perhaps depends on how involved a former subject librarian was with collection development prior to a functional restructure, and highlights the disconnect between the priorities of senior managers and subject librarians and the resulting inconsistent approach subject librarians can take to collection management.

However, a similar gap in collections support was perceived to have developed at Case Study D, which like Case Study C and unlike case studies E and F did not have a specific team or role dedicated to engagement around collection. The responsibility for collection development was supposed to be split between the Teaching and Learning Team and the Research Support Team; however, it was acknowledged that neither team was undertaking much activity relating to collection development. It was discussed how collection development was accomplished almost exclusively through patron-driven acquisition, with some concerns expressed regarding the quality of some purchases now the involvement of librarians had been removed. However, this was a concern expressed by librarians, and senior managers believed academics were best placed to make decisions regarding collections, again perhaps highlighting a disconnect between the opinions of librarians and managers on the extent to which the library should be involved in collection development. Although, it was acknowledged by one manager that the growth of distance learning was increasing the number of queries from academics regarding how to incorporate resources into online teaching, which the structure was now struggling to support.

During the focus group, the participants also echoed the comments made at Case Study C, with one stating, *"I mean you do still occasionally get asked, 'I'm looking for a book on this, what would you recommend?', but again there's absolutely no way on earth I could recommend one"* (*D.FG*). Although, it was also noted how, *"that's not what we're expected to do anymore...It's teaching them how to find the right kind of book for themselves, without ever needing us to"* (*D.FG*).

Perhaps unsurprisingly, since they both had separate roles or teams dedicated to collection development, at case studies E and F there were fewer issues around collections. Although, it was still felt by some participants that these roles could not provide the same depth of support or knowledge of collections that subject librarians could offer or be able to promote collections in a holistic way. While they had the capacity to engage with academic departments around collections, they were unable to promote resources directly to students, which subject librarians would have been able to do during teaching sessions and one-to-one support.

Despite all these challenges associated with the engagement and collection-based roles at case studies C to F, generally, the participants who were in roles exclusively dedicated to these activities acknowledged the advantages of functional structures discussed in Section 04.3.2. This, therefore, excludes those at Case Study D whose main role was either teaching and learning or research, as they will be explored further in the following sections. Those who found themselves in engagement or collections based roles and had formerly been subject librarians often expressed how they missed the subject librarian role; however, most had grown to accept a functional structure, with some even preferring it, sometimes to their own surprise:

"I always thought I was going to, that's why this has been a challenge to me, because I always thought, subject, subject, subject, but actually, I suppose, I go back to that point I was saying earlier about now [name of E.INT1.M]'s, kind of, given us the freedom to go out an explore what we could do differently within the roles we've got, that doesn't feel like a, such an issue" (E.INT7.M)

All of the participants in functional roles that were exclusively focused on engagement and collections, discussed or alluded to this freedom to both shape and develop their role and engage with academics, which greatly contributed to their acceptance and even enjoyment of these functional roles.

"I feel that I do have some autonomy and I am able to liaise, whatever, engage with my customers but it obviously is within the functional way, and that makes it enjoyable to me because I do feel that engagement is a key part of my role. It's not just buying the stuff. We buy the stuff for the people, and our customers, so, you've got to have engagement or otherwise, you know, why are you buying it? You know, who's using it? Why?...You know, getting them help to be able to use the stuff that you've bought. Getting access to the stuff on the shelves. It's all interrelated and that's the interesting bit, is trying to manage to do the engagement, I guess, in the functional way." (F.FG)

It was clear that having an engagement element to their role was important to librarians; therefore, it is unsurprising that at Case Study C:

"A lot of people were interested in being [in the engagement team] I think because they saw that as the broadest role...And that's why they chose, wanted to do that, and I think that does manifest because they get to do some training with academics and engagement and projects." (C.INT3.M)

This engagement role was clearly seen as the closest to the former subject librarian role, since they were still able to liaise and connect with academic departments, along with having variety in their responsibilities, which they valued, even if both could be seen to have somewhat reduced. There was also a clear prestige attached to it, with managers often emphasising how the skills required for the engagement roles were highly valued and elusive, as well as stressing how crucial these roles are:

"On the engagement side, I think you do need skills there, diplomacy stuff and the organisational understanding that you need to be able to do that engagement role. Some of it you can't learn. I think some people have got a political sensitivity because they get it and some people it would be just very difficult to teach that...So, maybe for that role there were stand out individuals who seemed to fit that and it was important to have those people. You couldn't really make a mistake with those roles..." (C.INT5.M)

Overall, for librarians there was clearly a strong professional identity still attached to engagement and collections roles, which made them appealing and enjoyable, which is perhaps unsurprising given how these two responsibilities were inherently associated with the subject librarian role. It is significant as well that these roles were often the ones identified by participants as still requiring someone with a librarianship qualification, which again added to the professional identity associated with these roles and consequently their appeal to former subject librarians. At Case Study D, for example, the former librarians in the Teaching and Learning Team were on a higher pay scale to the staff teaching academic skills, because of the engagement and collections element to their roles. However, it should be noted that even in engagement roles the need for staff to have librarianship qualifications was starting to be questioned, and at Case Study E the role focusing on engaging with academics on to embed collections into teaching was filled by someone with a teaching background, rather than a librarianship background.

4.5.2 Research support teams

In many ways, research support teams were the least problematic and most accepted of the functional teams created, which can explain why even the case studies with a subject-based structure had incorporated a research support team into their structures. A senior manager of a

library with a subject structure explained how a distinct research support team was important in order to *"raise our profile with researchers"* (*B.INT2.SM*) and it was generally accepted that subject librarians alone were unable to undertake all the growing amount of research support required, particular as they are often overload with teaching responsibilities. As a manager of a functional research support team also stated, *"I can't see how the roles that I'm involved with would work anyway but functional"* (*A.INT5.M*), and this sentiment was echoed in the comments of other participants in research support roles, including from subject librarians. As a former subject librarian who now worked in a functional research role stated:

"...for research, before we always were there to support PhD students and staff in terms of research, but it would be reactive, whereas now we're very proactive in our approach because got the time to do it. We didn't have the time because all our focus, mainly, not all of it, but most of it, was on the taught students, particularly undergrad, but taught courses. So, it didn't leave much." (D.FG)

In many ways, research support was perceived to be the easiest to separate out from the rest of the library services; however, there were still some differences between the case studies in how research support services had been structured:

- Case Study A: Separate research support team in a technical division of the library consisting of staff with PhDs and no librarianship qualifications, although the manager of the small team was from a librarianship background.
- Case Study B: Separate research support in a technical division of the library consisting of librarians.
- Case Study C: A functional research support team, consisting entirely of former subject librarians, structured in the same division as the Engagement and Teaching and Learning Team. However, this team focused on developing the skills of researchers and there were separate research support roles in a technical division of the library that focused

more on the administrative side of research support regarding the repository, open access and research data management.

- Case Study D: A separate functional research support team, consisting entirely of former subject librarians, that was subject aligned, and structured in the same division as a teaching and learning team. Some more administrative research services, such as the institutional repository and APC payments, were the responsibility of the technical division of the library.
- Case Study E: A research support team structured in a technical division of the library, consisting of a former subject librarian and an assistant.
- Case Study F: Separate research support roles each focusing on a different research service structured in the academic services division of the library. These roles were filled by a combination of librarians and non-librarians.

These differences illustrate how, despite appearances, research support services can be difficult to separate out from the rest of the structure because it can encompass both a skills based, teaching and advocacy focused, support service and more technical and administrative support, which often focused on managing research outputs and supporting the REF submission. Consequently, however senior managers decided to achieve the balance and align research support it had resulted in a certain degree of crossover of responsibilities regarding research support at each of the case study sites.

At both case studies A and B, the decision had been made to structure research support in a technical services division, but the subject librarians were still involved in research support to an extent, which had the potential to cause problems:

"I think one of the difficulties we had, with some [subject librarians], I think, was that Technical Services [are], as I've said, traditionally back-office. You never see Technical Services, there all sort of lurking at the back. Suddenly, [they] become

more prominent and are actually dealing with researchers on a day-to-day basis, there's a bit of a kind of turf issue there sometimes" (A.INT2.SM)

This same participant went on to say that there was the risk of subject librarians becoming *"isolated from the really innovative stuff that's actually happening" (A.INT2.SM)*. Although, the subject librarians who participated did not express similar concerns, with one even stating:

"...actually it's a bit of relief not to know all the ins and outs and what gold papers and journal streams and whatever, and it's just a, yeah, it's quite nice actually to say, that's much more, if you need an Open Access question, go to them" (A.INT4.L)

Even at the case studies with a functional structure research support was not unambiguous. Three of the four of them had primarily aligned research support with other academic services, although both case studies C and D had some element structured into a technical division as well. It was even being questioned whether at Case Study C whether the two elements should be brought together to improve collaboration, however, they were reluctant to lose the image of being an academic support service. Even where this split did not occur, there was also crossover between research support teams and teaching and learning teams regarding which has responsibility for supporting postgraduate taught and postgraduate research students. At Case Study F, the teaching and learning team actually delivered training to researchers around topics such as open access, research data management and academic writing, rather than this resting with the separate research support roles. Although, they did collaborate to create the sessions with the teaching and learning team and some training was undertaken by the research support roles, they focused more on the technical aspects of research support. There was also clear crossover at all the case study sites between the research support provided by the Library and that provided by the university research office, which will be explored further in Section 04.6.

Despite the differences in how research support was structured at the case study libraries, for most of them research support services were not aligned to subject. The only exception was Case Study D, however, this was described by the team manager as being *"more about how I portion work in a team"* (D.INT4.M), rather than being about subject knowledge, and *"they still do loads and loads of work outside of each other's subject areas"* (D.INT4.M). It was generally expressed by participants in research support roles, particularly those more aligned to the technical aspects, that subject knowledge was not important. As one participant stated:

"I think if you look at it from a functional, it doesn't matter which Faculty you come from as far as we're concerned, this is what you need to do, and the same rules apply to everyone...It doesn't matter what subject you're dealing with or what research is in or what subject, unless your funder's got a slightly different rule, but it shouldn't matter and it should be standard across the board, and if you're gathering bibliographic information then, it doesn't matter what subject you're in, does it? There's a standard, and it should be the same for all of them." (A.INT5.M)

Although, some participants did acknowledge that there were still differences between subjects:

"...from the Open Access side of things, that you talk to economists and computing scientists and their preferred mode of academic discourse is, are working papers, technical reports, non-refereed material, that kind of thing. Whereas, other subjects have got completely different requirements like that" (A.INT2.SM)

Another participant identified an example of where subject knowledge would be beneficial in a role; however, they did recognise that if the research team was larger this could probably be achieved without the need for individuals aligned to subjects:

"So, for example, I was going a Research Data Management training course...and as part of that course I have slides which advertises a number of different data repositories that people might like to consider using...And I got this immediate kickback from an academic that says 'well, how the hell am I supposed to spend the time working out whether it's appropriate for my needs? I need you to tell me'...We've tended to take a step back from that at the moment, because we don't feel we've got the time or the resource to be able to go and investigate these different subject repositories to access whether they would be fit for purpose or relevant to the members of staff we have here, but here was a direct challenge from an academic that says actually, no, this maybe process-oriented but it's still got a subject emphasis to it and I need some assistance...So, it's had to make us think a bit more about, ok, we're dealing with things on a generic basis, to what extent would it be valuable for us to consider trying to delve into doing those in a more detailed subject-level, because that would add additional value to what the academics are getting from us" (E.INT3.SM)

Without any subject alignment, it was also acknowledged that relationships with academic could become ad hoc as they:

"...may incidentally build up relationship with people because people who are prolific publishers, for instance and so on and so forth, might be ringing up a lot or sending in emails a lot, and you might build up [relationships], but it's on very much an individual basis" (A.INT2.SM)

Despite research support roles often not having any subject alignment, similar to engagement roles, there was a certain level of prestige associated with them which was attractive to staff. At Case Study D, where the research support team also maintained a subject element, these roles were particularly appealing to the former subject librarians:

"I think they were, I think, generally well received by those who went into the [name of team – research]. I think that was seen as the glamorous area, and from what...I heard at the time and from what I have seen our best liaison librarians applied and we're successful in the [name team – research], which is good...So, I think they were pleased around that and I think that gave them a chance to focus and do some of the new things" (D.INT2.SM)

A lot of the prestige associated with these roles came from the strategic level in the university at which they were often engaging:

"It's huge, a huge change for us and we tend to work with quite senior members of staff as well, and that relationship building is something about building a respect with them as well...not just being chippy librarians" (D.FG)

Similar to both subject librarian roles and functional engagement roles, those in research support roles often felt a sense freedom and empowerment to explore the role. It was acknowledged that former librarians who moved into a research support role significantly needed to develop their skills and knowledge in this area, since as subject librarians they had previously not had the time to specialise. As one participant stated, it was " a massive change in terms of my *knowledge*" (*D.INT6.L*). However, they welcomed and enjoyed the opportunity to be able to develop their skills in new areas of support and while it was felt that, "a *lot of what we do doesn't have to be done by a librarian.*" (*D.FG*), many still discussed feeling a sense of professional identify in these roles. This was because of the autonomy they were granted, as well as the need to keep up-to-date and continue to develop new skills in such a fast-paced area, which created a professionally fulfilling role. With one participant stating how "I still feel very much like a librarian...because we have the *opportunity to continue to develop as well. I think that's really important.*" (*D.FG*).

Although, some did still express a concern over the potential devaluing of the traditional librarianship skillset. While many of the research support roles were filled by former subject

librarians at the case study sites, it should be noted that not all were and a librarianship qualification was never an essential requirement. At Case Study A, both research support roles were filled by people with PhDs, and at Case Study D, the manager of the team acknowledged that it would be useful to have at least one member of staff with a PhD in the team.

4.5.3 Teaching and learning teams

Case studies C to F had all implemented some form of functional teaching and learning support team during their restructure and there was even a functional team focused on academic skills support structured in the library at Case Study A. However, again, these teams differed in their setup and responsibilities:

- Case Study A: A small team of staff was structured into the same division as the subject librarians and provided academic skills support to students. The team consisted of staff who all held PhDs and teaching qualifications, and identified as being Learning Developers. Significantly, maths and statistics support for students was provided by another team elsewhere in the University.
- Case Study C: A team that supported students, including taught postgraduates, to develop the skills required for academic study, and was split into two separate areas: an academic skills team and an IT and digital skills team. The IT and digital skills team remained unchanged from the team that existed before the restructure, however, the academic skills team consisted of the staff from an academic skills team that had previously become part of the library, with the addition of a few former subject librarians. This team, therefore, contained staff both with and without librarianship qualifications, although there were separate job titles and descriptions for each, but none had any formal subject alignment.

- Case Study D: A team that supported students, including taught postgraduates, to develop the skills required for academic study. This included training and support for information literacy, academic skills and some IT and digital skills, as well as maths and statistics support. They were also increasingly providing training for staff as well. The team consisted of former subject librarians who were aligned to subjects, and other staff who taught academic skills, but were generally not aligned to subjects and were on a lower salary grade. Attached to the teaching and learning team was also a group of Student Mentors who were supervised by the Librarians in the team and provided bookable one-to-one peer support alongside the staff.
- Case Study E: A team that supported students, including taught postgraduates, to develop the skills required for academic study. This included training and support for information literacy, academic skills and some IT and digital skills. Someone supporting maths and statistics was also added to this team during the restructure. This team had existed prior to the restructure, with the restructure resulting in a couple of former subject librarians being added to it. This team, therefore, contained staff both with and without librarianship qualifications, with them all having the same job title and job description and none of them having any formal subject alignment.
- Case Study F: A team that supported students to develop the skills required for academic study, but also supported researchers around topics such as open access, research data management and academic writing, through the delivery of teaching sessions. Originally, the professional staff in this team were all librarians who had been restructured into the team, however, as people had left some replacements had been hired who did not have a librarianship qualification and instead had teaching qualifications. Consequently, there was now a mix of professions at the professional level within the team, all with the same job title and description.

In many ways, these teams were the most problematic of the functional teams for many reasons. At Case Study A, it was acknowledged that there were clear advantages to having the academic skills team positioned in the Library in order for students to be able to access different support services related to their studies in the same place. A participant from the academic skills team believed that by being placed in the Library they were more inclusive and approachable for students rather than being placed with Student Services, such as wellbeing and counselling, where they felt that:

"...the slightly pathologizing, remedial, negative connotations of working in Student Service are problematic, because it makes the students feel bad about coming to ask for help, when it should be completely normal. So, a library is a much better place from the student's perspective" (A.INT7.M).

However, while the team was structurally positioned in the Library and in the same division as the Librarians in the Faculty Teams, the two teams were kept "totally separate...[the] functions are very different, they're very separate" (A.FG), with Librarians focusing on teaching information literacy skills and academic skills being taught by the other team. A member of the academic skills team even expressed how "we're both part of the organisational structure and we're also not" (A.INT7.M). Both information literacy and academic skills were viewed as the specialisms of their respective professions, and it was expressed by a participant from the academic skills team that they would resist merging the work of the two teams. This was due to fears of this affecting the quality of support students received and potentially resulting in the de-professionalisation of both librarians and learning developers. It was also felt by this same participant that the two teams had very different values, perspectives and styles of teaching, with one participant stating that "the differences are right down to how we conceptualise what we do and how we go about doing it and the things that are important to us" (A.INT7.M). However, there are clearly crossovers in teaching responsibilities, with referencing being identified as the main area where it was unclear which team

had responsibility, and it was identified that this separation could cause confusion for academic staff:

"So, we obviously understand where [the boundary] is most of the time, but the academics don't, they just see us as one thing...They want it just done, and they don't really mind in some ways who does it. So, my big bone to pick is that you have to contact the [academic skills team] if you want teaching from them, and then you have to contact us separately, and they're different people, it's not coordinated. When I worked in the [acronym of Faculty] team, my first year that I was here, I just happened to share an office with one of the [academics skills team], and we were printing stuff off and I was like, 'I'm teaching them this week', she was like, 'I'm teaching them this week'. It turns out we'd been asked to teach exactly the same thing, with a slight difference, an hour apart." (A.INT4.L)

The complete separation of the academic skills and information literacy skills was also deemed to be strange by one the librarians who had come from another role where the teams worked much more closely together and they themselves had been expected to teach some academic skills. One participant even stated how it felt *"archaic in some ways to still to be just talking about information literacy...I stopped talking about information literacy for years and now I'm back to it" (A.FG).* It was clear that the relationship between the Librarians and the academic skills team appeared to be more problematic than the relationship with the functional research roles, as one subject-based librarian alluded to when discussing their relationship with the functional research roles:

"I think it's much, yeah, much less blurred, and there's much, there's not as many problem as there is with the [name of academic skills team]. There's much greater cross-over." (A.INT4.L)

A participant from the team teaching academic skills equally expressed difficulties working with the subject-based librarians:

"Where it's slightly more problematic, I think, is that we are a different profession. We have a very different idea of what we do. We have a very different way of doing it. So, I find that sometimes we're kind of getting sucked into processes that either are not relevant to us, don't quite work for us, you know, and because we're small, sometimes it can feel that we're getting a little bit overwhelmed and lost in that." (A.INT7.M)

They expressed feeling like outsiders in the Library and this same participant went on to say:

"I think it's an on-going process of negotiation to be honest. I think we are still learning to figure out how we can work well together...I think we're still learning to understand each other's roles and what we do and the differences between it." (A.INT7.M)

Nevertheless, it was acknowledged that the subject-based librarian *"gets to know their Faculty very well"* (A.INT7.M), unlike the staff in the academic skills team who work across the whole University due to the small size of the team. The benefits of this were appreciated and there were instances of the subject-based librarians and the academic skills team working together, with a participant from the academic skills team stating how they we able to:

"...piggyback on the connections that the [subject librarians] have within the School. Where we can work with them to make sure that our teaching is embedded well, so there is zero point having a session on academic writing followed by a session on searching for sources, because it's totally the wrong way round. So, we can try and collaborate a bit and work with the academics to try and figure out a sensible way of embedding this stuff in their teaching" (A.INT7.M). However, the way this collaboration occurred again highlighted some inconsistencies between the Faculty Teams:

"Sometimes we do co-teach, particularly in Science, not in Arts as much, and Humanities. It's kind of more separate...They do much more for Science, but they're a small team, we're a fairly small team as well, but not as small as them, and there's definitely cross wires and cross-purposes..." (A.INT4.L)

The intention for the senior managers in the Library was clearly for these two areas to work more closely together. In the job description of the senior librarian, it stated they are to:

"Liaise with the Head of the [academic skills team] and other professional support services to ensure the co-ordination and effective promotion of a wide range of academic skills support for students, particularly information and digital literacies."

The senior managers appeared to have a different perception of how the subject-based librarians worked with the team teaching academic skills, they often just stated that co-teaching between the two teams existed and showed no knowledge of the potential issues expressed by other participants. As expressed by one librarian when discussing working with the academic skills team:

"On some level it's worked and on other levels it doesn't work at the moment. There's more work required, I think." (A.FG)

It was commented on how some universities appeared to have a more joined up approach to teaching students and creating modules. It was felt that other universities were able to seamlessly combine not just academic and information literacy skills, but also wider students skills around careers and employability, to create a more holistic approach to teaching students where everything they need is *"in one place together" (A.FG)*.

In contrast to the separation of teaching and learning support in the library at Case Study A, at case studies C to F their functional restructures had brought support together. As one participant from an academic skills support background stated:

"...we probably didn't have to belong in the Library. We are incredibly happy that we do now. We think it's a really good home for us, but the last iteration of our Library restructure really cemented that" (E.INT5.L)

It was acknowledged that this did have huge advantages and negated many of the problems seen at Case Study A. By bringing teaching support services together, many of the case study libraries with functional structures had been able to create a standardised menu of services and support that they were able to market to users, as well as a shared system for bookable appointments. As one participant stated:

"I think from a student point of view it's simplified things a lot, and I think it's good for us in a way, we can really focus on things like teaching skills and focus on the idea of us as being teachers, as forgers of students, without having to worry about kind of other aspect that they might have had to their roles previously." (C.INT7.M)

However, there were many challenges still associated with managing these teams, and this was at least partially due to the differences between librarians and other professionals who teach academic skills, alluded to in the comments made by participants from Case Study A above, and the general challenges faced when different professions are mixed together in a team. Many participants discussed a good team working culture between librarians and non-librarians in functional teaching and learning teams, whereby both groups were working together, co-teaching and learning from each other. However, compared to librarians in other functional teams, it was the librarians in these teams who were most likely to indicate that they felt a loss of professional identity and a devaluing of the traditional librarianship skillset. This was particularly felt at case studies C to

E, where the librarians were joining academic skills teams that already existed. In comparison, there appeared to be less problems in this regard at Case Study F, since this team had originally been formed completely of former subject librarians. Therefore, the team had the time to become established in their new roles, before staff from outside the profession were brought in.

Even at case studies C and D, where the former librarians were given different job titles and responsibilities to the academic skills staff, this loss of professional identity was still felt. This was because, the differences in responsibility were not at stark as they appeared on paper, and many participants working in teaching and learning teams reported that the majority of the demand for support was around academic skills, rather than more traditional support offered by librarians. Significantly, many former librarians discussed not feeling qualified to teach academic skills to students:

"I've been told, the university considers me an expert in academic writing. I have a 30 year old GCSE in English. That's my qualification for this. We take on student mentors, don't we? We have a peer mentoring scheme. The students who are taken on as peer mentors have higher grade GCSE English than I have. They have to have a better grade." (D.FG)

One participant even stated that:

"I would go so far as to as to say I actually do not feel like a Librarian at all...I feel like I'm more of a remedial studies tutor, which, again, is probably quite a bold statement to make, but that's just how I feel." (D.FG)

Although it should be noted, not all would agree with this statement. However, due to this focus on academic skills at Case Study D, the Head of the Library was even beginning to question the distinction being made between the librarians and academic skills staff in the structure.

This imbalance of academic skills support over information literacy skills support, was common for all of the teaching and learning teams across case studies C to F, and was attributed to the fact that students often feel they do not need to seek help with finding information:

"...because people now have access to move information than they ever did before but people also have a great ignorance around how to access that information and use it intelligently and this is a big problem, and I think one of the challenges that librarianship has is people think they can do and they think they can do it well...because Google has made it so easy and the sad things is you can probably get an undergraduate degree with Google Scholar. You absolutely could" (E.INT5.L)

However, managers were clearly acknowledging that the biggest demand was for academic skills and wanted to continue to grow this support:

"if I could generate some internal resource to do that, that's where I would put the priority in, because I think actually the academic skills side is actually fundamental to the success of the Library at the moment in its contribution to social mobility of the agenda of the University." (D.INT2.SM)

It was even acknowledge by managers that this had an impact on professional identity, with one Head of the Library stating how:

> "I think the other issue we have around the structure is the [teaching and learning staff] are very much moving, well I would say, away from being very traditional librarians, [subject librarians]. They now have a wider range of skills and I would suggest actually most of their activities are not in traditional librarianship. A lot of their activities now are answering student enquiries, working with academic staff around delivering some workshops around the academic skills agenda, having

one-to-one appointments with students around their academic skills and liaising with Schools through the various Committees and structure that we have here. So, I think the focus there of those activities tend to be liaison and the skills advice and I think they spend more time on that than they do on traditional librarianship, and that's clearly a challenge because that's a challenge to their professional identity." (D.INT2.SM)

However, by supporting this growth and increasingly having librarians focus on academic skills, this further sent out the message that the librarian skillset was being devalued and it was more difficult for librarians to advocate for their importance as they were becoming diluted in a wider team. This was even acknowledged as a problem by a participant from a non-librarian background:

"...there's a lot at stake for the profession, I think, and with those functional roles, it buries it, in that I do not have an information literacy degree or a librarianship degree or a librarianship qualification, but I am delivering information literacy sessions to students and helping use stuff in different ways, but I'm not an information specialist and that sends quite a dangerous warning, doesn't it? In that you don't need somebody qualified to do this, and reading lists, the way it operationalises the collection, you don't really need a qualified librarian doing the day-to-day stuff there either because you just buy what the academics tell you, and it kind of devalues the expertise and the qualifications." (E.INT5.L)

Yet, it should be noted that those in academic skills roles also feared losing their professional identity as Learning Developers, as librarians increasingly took on responsibilities around academic skills support:

"If I can teach what you teach and you teach what I teach, then where is the expertise in that? Where is the justification for us basically? If you can replace me with pretty much your mum, who could give you study skills tips or a PhD student

then I start to worry. Not just for my own job, but that the students wouldn't get the kind of expert provision that they deserve, frankly." (A.INT7.M)

However, significantly, at all of the case studies, where new staff had been appointed to the teaching and learning teams since the restructure, they had all come from non-librarianship backgrounds, although the need for a professional qualification or degree was still seen to be important.

This loss of professional identity felt by many librarians in functional teaching and learning teams was also related to the fact that many had lost their connections with academic departments, which many also perceived as a particular problem for their roles. They often felt less able to tailor their teaching and support to specific subjects:

"Functional wise you're going out and teaching, but you're actually asked to put it within a subject context, and if you haven't got that subject knowledge it's a lot more work to try and provide the answers that the student wants or needs." (C.INT4.L)

Therefore, it was perceived that, while the quantity of support sessions may be increasing, the quality was possibly declining:

"I think they are, they're probably getting less expertise, less sort of detailed support than they used to probably, and I'm not quite sure how they feel about that but...So, yeah, probably their service has gone down a bit in terms of the detail, but as I said overall it's probably better to kind of be a bit more sustainable and a bit fairer." (C.INT2.L)

It was particularly felt that this was a problem for certain subjects, such as Business and Law, with specialist databases, which it was often felt could no longer be supported to the same extent as before:

"So, it's the same with Law and Business as well, is the other tricky, I think Business has been a hard...particularly with things like financial databases because really that's really complicated, I mean it's over my head I think, not that I've ever really tried to do too much of that...So, I think people have struggled, particularly in things like one-to-one appointments and things because sometimes you just, you could like a PhD and they need help with something very complex...So, I think there is definitely some gaps in there." (C.INT2.L)

These concerns over the inability to tailor support were not isolated, and examples could be seen across all of the case studies with a functional structure. At Case Study C, whilst the engagement team felt they were not always provided with all the information they needed, this was also felt by the former subject librarians in the teaching and learning team, who believed not enough information was communicated to them in order to tailor sessions. Even at Case Study D where the librarians were aligned to subjects, while they felt able to tailor the teaching sessions delivered for their subject areas, it was felt they could struggle in one-to-one appointments where they were expected to be able to support students from any subject. At Case Study E, this inability to tailor session to students was felt the most because they had originally not been allowed to engage with academics and embed sessions, resulting in generic workshops for students to book onto. While this was beginning to change, it was still not fully established and was ad hoc, since the team was relying on previous relationships with academic departments. The loss of subject knowledge for teaching support was also felt by former librarians at Case Study F, where on participant stated:

"I feel it when I'm actually meeting face-to-face with a student and I'm not an expert in that subject and there's a sort of expectation that you will know certain things and you don't. You just...you can give them general advice, but sometimes I feel I'm falling short simply because that's not my area" (F.FG)

At case studies C, E and F, where there was no formal subject alignment this concern over tailoring teaching sessions was resulting in informal splitting of teaching responsibilities based on the subject knowledge staff had develop in previous subject librarians roles. Therefore, as one participant stated:

"So, the point really was that...in the [teaching and learning team], that those librarians would then be able to cover all different subjects and be able to cover each other if anyone was off. In reality, I think we're quite a long way off, that's still happening, but that's the grand aim that they're going to be able to cover all the subjects." (C.INT2.L)

However, significantly, for those in academic skills roles who had not come from a librarianship background this inability to tailor support was not highlighted as a problem because they had never been aligned to subjects and so did not feel this same loss. One non-librarian in an academic skills role, argued their inherent philosophy around teaching was different from that of librarians, stating that:

"...we're not there to be subject experts. We're there to help, we're very facilitative. It's more like counselling in some ways, than teaching. We are there to help the students better understand the very specific conventions in their own discipline by asking pointed questions of them. So, we're not experts in that sense, but we do, we don't work generically, we don't give generic one size fits all advice. If you see what I mean, we try to find, we're trying to help the students find their own answers...It's not our subject. It's not our curriculum, but we understand how learning works, we understand how educations works, and we will use that to help the students figure it out themselves."(A.INT7.M)

Therefore, as another participant non-librarian in an academic skills role acknowledged, this change in approach could be challenging for former subject librarians:

"...you can be in a very safe position when you've had to know one kind of student from one subject, and that makes encounters more predictable, because you know what kind of questions people will have and...but [in a functional role] you've got to have a bigger...bigger range of thinking of the fly...and think on your feet...I think you potentially need a little bit more emotional intelligence when you're working with such a diverse bunch of people, you, yourself, have to be able to learn things very quickly. You, yourself, have to be able to adapt things. So, here's something in nursing, can I think of some way of applying this to Politics or to Law... I mean you learn how one databases works, you can use any of them broadly speaking, and the amount of times I've done that...you know, I use EBSCOHost all of the time, I use ProQuest all of the time. Somebody from Law comes along, I'm like, 'Ok, I'm sure I can apply these exact same skills to WestLaw and Lexis'. Granted there's, you're like one step ahead of the student. You can click here to look for case law and you can click here to look journals, I sound like an expert, I know nothing, but they don't know that. It does require a lot of different skills and I think there will be different working styles when those changes come through as well, and different individuals will find that challenging to different extents." (E.INT5.L)

However, it could even be argued that many subject librarians did not have in-depth knowledge of all the subjects they supported, as previously mentioned at both case studies A and B subject librarians were supporting a wide range of subjects. Therefore, as long as some attempts were made to use subject terminology and appropriate examples, in-depth subject knowledge was not required. As one subject librarian described:

"I gave up Chemistry when I was 13...I had a subject responsibility for Chemistry. I couldn't even pronounce half the stuff that was in it, let alone understand what it

was. There was someone in my team who had an A-Level in Chemistry, she helped me put the information literacy slides together and I went in fairly new to role and delivered a session for first years and the academic said to me afterwards, 'So...you got a background in Chemistry then?'...I said, 'No, I haven't'...'Oh, you were very convincing talking about buckyballs and fullerenes'...So, you can learn it and as long as you understand the concept of retrieving information and organisation of knowledge and you can communicate, it's a matter of working with the academics and students to say, 'OK, what is it you're looking for?' Helping them tease out the right terminology. Helping them combine the words and put their searches together. So, it really doesn't matter if you don't know anything about it."

Yet, it was felt by many participants in teaching and learning roles that *"it's a totally different type of support now than it was" (D.FG)*. Therefore, in many ways it could be argued that, while the teaching and learning team could be seen by managers as the easiest team to move into because subject librarians all had experience of teaching, out of all of the teams, it actually required the largest change in terms of mindset and ways of working for former subject librarians. Yet it was noted at Case Study C that there was a lack vision for how the team was supposed to work, when in many ways it could be seen to be the team most in need of a clear vision. This could be seen to have contributed to the informal splitting of roles and responsibilities within the team, and even the team manager had not formulated a clear vision for how the team should work:

"But, yeah, that's been probably one of the biggest sort of challenges in a way is do we have, do we continue to have people leading on different subjects or do we make it all totally kind of interchangeable and, yeah, shared out." (C.INT7.M)

Not only did librarians moving into a teaching and learning team have to navigate a new approach to teaching that did not rely on acquired subject knowledge, but they also had to adapt to

other challenges relating to ways of working. In contrast to the other functional roles, many participants in teaching and learning posts also indicated that they had a lot less flexibility and freedom compared to when they were subject librarians. This was mainly because much more of their time was now timetabled for sessions and support. In addition, they were also more likely to complain about their workload than other functional teams, and therefore, did not have the same flexibility discussed by participants in other roles to adequately explore the role and have the space and time to develop the skills required:

"What the new structure cannot do is take away the fact that there are far too many students, far too many Schools and Colleges for the number of us to deal with effectively. I don't think it streamlines it or makes it much more possible because it's too big and too big a task." (C.FG)

Many complained of a lack of training and time to full develop the new skills required for their new responsibilities, particularly relating to academic skills, often having to learn on the job:

"And having had a conversation with somebody two or three times about academic writing, you are now an expert in academic writing. So, I feel we didn't really ever receive any adequate training on it." (D.FG)

This problem with workload was particularly highlighted as a problem at Case Study D where the librarians in the teaching and learning team, also had responsibilities around engagement with academic departments and collections, which due to the increasing teaching demands they felt they could not adequately address. This problem was heightened due to extra responsibilities regarding supporting the use of IT software, which again was taking librarians further away from their traditional skillset. This led one participant to state *"we need to re-dignify, kind of, what we do traditionally, to start with...and maybe push some of this LinkedIn, PebblePad nonsense like back to where it belongs, which is Learning Technologists or IT" (D.FG). The manager of the team at Case Study D even compared the problem to how subject librarians can become overloaded:*

"I think what you need, if you're going to take it seriously, maths support and academic skills support, eventually, you just have to say that that's what these people are about, and these individuals need to be expert at what they do. They need to be reading about that type of activity and not trying to be everything, and that goes back to the conversation we had 5 years ago where we said, we can't expect these people to be everything...For me, now, it's about we're expecting people to very occasionally do something they've not done for a long time. I would actually like these people to feel really expert to support writing and to be expert in liaising with people from dyslexia support and seeing where that type of pedagogy and teaching pedagogy's going and concentrate on that, or you have split of people in the team with different job roles – some do that and some do what is more traditional." (D.INT3.M)

However, this large workload was experienced by all of the teaching and learning teams and had often resulted in some informal splitting of responsibilities, which often went against the idea that staff should be able to cover for each other and teach everything.

Altogether, many of these problems experience by functional teaching and learning teams had been exacerbated by the fact that some subject librarians ended up in the teaching and learning team when they would have preferred other functional roles or felt that the teaching and learning role was their only option. As one subject librarian stated:

"I love the teaching aspect of my job, but I like being able to do other things as well. It's very draining if you're doing a lot of teaching. So, it's nice to have that break and work on something else. Whereas, if you're just doing that all the time it would be very, very intense" (B.INT6.L)

While it should be noted this was not the case for all of the former subject librarians and for some it was their first choice, as mentioned in the previous section, the engagement, collections and

research support roles were often more appealing due to the either the prestige associated with them or the clear links with the subject librarian role. While research support was seen as an everchanging, exciting area to specialise in, some had the perception that there were less opportunities continuous professional development in a teaching and learning support role:

"...once you know how to teaching and you know what you're teaching and you know the ropes and the processes and the procedures...the other area is...It's incredibly specialised, don't get me wrong, but it's like, those skills, those kind of teaching skills, don't change as much...The technologies and stuff and the ways in which it's delivered might. So, that might present a challenge..." (D.INT6.L)

This was significant since the ability to continue to develop skills and knowledge professionally was clearly important for staff in order to feel fulfilled and enjoy their role.

Even at Case Study D, which in many ways could be seen as the closest functional role to a subject librarian role, since it still included a subject alignment and elements of engagement and collections, as well as teaching support, this was still a problem. Therefore, since the teaching and learning teams were usually the largest, some staff were inevitably left disappointed:

Participant 1: I was definitely in an advantageous situation to apply for the job that I wanted...and I got it. So, I was happy about that.

Participant 7: There were clear winners and losers, weren't there?" (D.FG)

Inevitably, this led to an inherent tension between teams *"because it probably did feel like a rejection" (D.INT5.L)* for those staff who did not get their first choice, particularly due to the prestige associated with the other roles and some of the comments made my senior managers regarding the importance of getting the right people in them. The senior managers at Case Study D had even recognised this as a potential problem, and had attempted to stress the importance of the teaching and learning team:

"I wanted to be really careful not to let it look as if the [name of team – research support] was special, and better, and more important, and that you might have to be, you know, specially selected to come out of the old, boring, you know, studentfacing one into the [name of team – research support]... there was a danger that there might have been like, you know, 'oh, you've chosen the best ones from the team to go into this special new little team', and I didn't want that to happen, mainly because I didn't believe it for a second to be honest, you know, the profile of this kind of university that [name of the case study university] is, you need your best people in your [name of team – teaching and learning], because that's where...we've almost 30,000 students now. If you don't get that right, you're in trouble." (D.INT1.SM)

However, unfortunately, that was the impression some participants had, with one stating how:

"So, a lot of people applied to be in the [name of team – research] one. I think that was seen as that's going to be easier in terms of workload...So, everybody sort of seemed to try and get in that team, because they realised our team, we were going to be the workhorses of the, you know, like donkeys for this, and just be, you know, avalanched with work to do." (D.INT5.L)

4.6 Contextual factors

As demonstrated throughout this chapter, the libraries at the case study sites had combined subject and functional elements in a variety of different ways, which had created a range of organisational structures whereby no two were the same. The reasons for these differences in the organisational structures and the ways they operated could be linked to a number of factors that emerged in the research and were specific to the institutional context in which these libraries were operating, with some of these factors also influencing the effectiveness of the different structures. These factors included:

- The needs of the parent institution and how university leadership perceived the library would contribute to those needs
- The overall structure of the parent institution and the boundaries between the library and other support services
- The vision library leadership had for the role and boundaries of the library
- The library building and its location on campus
- Historical decisions regarding the organisational structure of the library
- The people in the structure
- Leadership

Essentially, the needs of the parent institution and how university leadership perceived the library would contribute to those needs were crucial factors in influencing the role of the library within the university, and consequently library structures. As one participant stated, *"What makes a good library is that it's doing what its parent institution needs from it really" (D.INT1.SM*), however, it was clear that what this was could differ between universities. The role of the library was not as straightforward as it had potentially been in the past, and it was increasingly influenced by the needs of the university. As one participant stated:

"...libraries are part of their parent institution, and that is a realisation because I think historically we've always felt that sometimes we're somehow separate or an organisation in ourselves...Some universities have been built around libraries, but generally, you know, we're part of a parent institution and those institutions aren't the same" (F.INT2.SM)

Even where the case study libraries were structured within the overall organisation differed. Some of the case study libraries had been structured in a student-focused directorate, whilst others were

structured separately from other departments, indicating potential differences in how university leaders viewed the role of the library within their organisation. One participant acknowledged this disparity in where academic libraries were structured within universities:

"I know we've got a number of universities where actually these student support services and the Library are in the same organisational unit...because it is quite clear there are times where their work overlaps and is complementary....you could see there might be a case there for actually putting those in the same organisational unit, because they are doing different services, but the service is often to the same students around advice, because quite often a student who is struggling academically also has financial issues or can have mental health issues...So, you can see an argument for doing that. Now we don't do that because the University organisation puts us in different containers." (D.INT2.SM)

Therefore, it was clear that the overall structure of the parent institution and the boundaries between the library and the other support services within the university were having a huge impact on the choices that were being made around structures at the case study libraries. There was an acknowledgement that as university libraries were expanding their responsibilities; they were increasingly being shaped by the structures and remits of other areas of the university, besides the academic departments. There were many areas where the role of the library could now overlap other areas of the university, specifically departments such as student services and research offices, and where university leaders were drawing the boundaries between the library and other departments was not the same at each case study. As one participant noted, this inevitably affected library structures:

"...library services have, probably, a core set of activities around collections and stuff like that, and operating buildings. After that for most library services, there are lots of other services that could be movable between different parts of the

University. So, for example, there's no reason in theory why the academic skills service should be part of the Library service...You know, in other universities that's part of another service. So, the fact that it's part of our service rather than elsewhere in the University, I suppose, does therefore affect the structure...So, I think it's more to do with how the organisation is divvied up." (D.INT2.SM)

Some of the responsibilities that could be located either within the library's remit or in another department of the university that emerged from discussions included academic skills, maths skills, e-learning, development of teaching skills for academic staff, digital and IT skills, bibliometrics, open access, research data management, as well as various other activities around research support. This was unmistakably affecting the organisational structures of the case study libraries, with the differences in remits going some way to account for the diversity of roles and structures witnessed. Significantly, all of the case study libraries had taken on new areas of responsibility, therefore, this cannot be said to account for the decision some libraries had taken to restructure around functional teams. However, it was clearly pushing libraries towards incorporating more functional elements within their structures, even if they had chosen to retain subject librarians alongside these.

Significantly, whilst university leadership clearly had an impact on the changing roles and responsibilities of academic libraries, the library's own vision for its role and boundaries within the organisation was also an important factor. Sometimes new responsibilities had been placed in the library by university leadership; however, at each of the case study sites there were examples of the library leading the development of services that were not being provided anywhere else in the university. There was a clear desire amongst library leadership to expand the remit of academic libraries and they were often looking for ways to do so. As one senior manager stated:

"I mean one of the reasons why we've got so involved in research data management and open access was because nobody else was doing it. One of the reasons why [name of the University's research office] got involved in

bibliometrics was because no one else was doing it... So, to a certain extent...we have to look where the gaps are and what needs doing and get on with supporting that, rather than try and duplicate things that are happening elsewhere already." (B.INT2.SM)

Another participant who managed a functional team in subject-based library stated how:

"I think you've got to read the situation, respond to that, so, I think the local context is important. You don't want to be stepping on people's toes either or doing something that's actually done somewhere else." (A.INT5.M)

At Case Study D, participants discussed how there had previously been no centralised research office at the university, which had made it easier for them to establish the Research Support team following the restructure. The manager of the team explained how:

"...we could sit down and decide what we wanted this service to be and we decided it was going to cover this, this and this...These are the elements it's going to cover. So, it was really easy for me to do that...we were in a luxurious position where we could get it up from scratch. " (D.INT4.M)

A centralised research office had since been established at the university, but it was noted how for "other institutions with a much stronger Research Office it's been a lot harder to establish the library [research support team]" (D.FG) and there could be "a bit of tension between the Library and the Research Office" (D.INT4.M). Therefore, the existence and remit of other teams in the university undertaking similar roles to the library, not only influenced decisions around library structures, but also affected some of the challenges faced in these structures.

Whilst all of the case study libraries had extended their responsibilities, participants from those that had restructured around functional teams often felt that a functional structure made it easier to expand the remit of the library. As one participant stated:

"What is more likely to happen, I think, is that the, that restructure has created the capacity to make changes to the remit of both of those teams, and they've already started picking up a lot more than they used to do, and I suppose that logically there will be stuff that happens in the future where we'll go, 'yeah, go on. We'll have that. We'll do it'...So, I think it's more likely that those two teams will continue to grow...Well, I was going to say organically actually, you know, in terms of just responding. Probably a more honest word would be opportunistically, you know, when things come around and you think, 'oh, we'll do that'..." (D.INT1.SM)

Yet, significantly, it was found that the ability of a library to expand its remit, along with the future vision for the library, were strongly influenced by the library building and its location on campus. Although, it is noteworthy that this had a larger impact on increasing areas of student support, with less impact being seen on the development of research support services. As previously, discussed in Section 4.2.2, a restructure around functional teams and the removal of subject librarians had often coincided with the library moving into a newly constructed building or a refurbishment of the current library building. However, this provided more than an opportunity to restructure the library; a key factor of these buildings was their central location on campus and the vision for these buildings to be a focal point of the student experience, with other student support services often being brought into the same building as the library. Many participants discussed how a centrally located library facilitates a growth in student support areas, which will consequently influence choices around organisational structure. As one participant from a library that had restructured around functional teams stated:

"...one of the things that affects...what role a library can play in an institution is location on campus. So, one of the reasons we've been able to put the library at the heart of how we've really supported students couldn't have happened if we'd been on the edge of campus – physically...So, the fact that we've got...our biggest

library in the middle of our biggest campus, a destination for all students, near the sports centre, near the Students' Union, etcetera, means that building the wider access to support around the library makes perfect sense. If you're on a campus and your library's on the edge, that can't happen. You're peripheral. So, my predecessor...she had the offer of moving the library to a new build. A fantastic investment that we've got. Lovely building...She went 'No way! We'll stay in this old building because actually its location, location, location!' Really important...So, it affects what's expected of you and what the potential is" (F.INT2.M)

In contrast, a participant from a library with a subject-based structure stated how "We're very mindful that in terms of where we sit in the University...we're a bit more on the periphery. So, I think we've always been very mindful that...we can make no assumptions about being integral to the student experience." (A.INT1.M). Although, it is of note that the library at Case Study B was centrally located, yet, some participants discussed problems with the building and the space, which could potentially be influencing the perception of the library within the university and acting as a barrier to developing the role of the library in relation to other support services:

"I'm not sure it's always recognised [within this university] that the Library is kind of, very much, the central hub of a University...I don't think it gets the recognition it should...I think we're lagging behind in terms of facilities, just because of the state of the building..." (B.INT6.L)

Additionally, as well as the impact of a centrally located library and its condition, inevitably, if a library has multiple smaller sites in different locations this also has an impact on the organisational structure. Since site libraries tend to serve a small number of subjects, there is the perception they suit a subject-based structure. As a participant at a library with a functional structure stated, *"I mean can you imagine if you tried to do this at Oxford or Cambridge…well it just*

wouldn't work, because they're...both of them are made up of like a ridiculous number of smaller, tiny libraries." (F.INT7.M).

Significantly, both of the case studies with subject-based structures either had, or previously had, multiple site libraries. Case Study A, whilst having a main, larger library, also had a number of smaller, subject-specific site libraries, and Case Study B historically had a large number of site libraries, although the last one had recently closed. As stated by a participant at Case Study B, at smaller site libraries "...you are asking people to have breadth. If they were in a small team they had to do a little bit of everything..." (B.INT2.M), which a subject-based structure supports. It was alluded to by participants that when there are multiple site libraries, there is an inherent need for duplication of work and the development of inconsistencies associated with subject librarians is inevitable. Therefore, it is noteworthy that at Case Study B, a participant recognised that, despite retaining a predominantly subject-based structure, "...as the sites have come together, we've reviewed that and we've gone to a more functional approach" (B.INT3.M). In addition, Case Study F had previously been a multi-site library, with one participant stating that the library had been restructured around functional teams because "all sites seemed to run differently, they all had their own operating principles, their own ways of doing things. This was to bring it all in line," (F.INT4.L).

Therefore, the historical decisions that had been made regarding organisational structures, which had often influenced by the library buildings, were also clearly having an impact on choices now being made. Sometimes this was because previous adjustments to organisational structures might have already alleviated some of the disadvantages associated with a certain type of structure. For example, at Case Study B, despite having a predominantly subject-based structure, staff were encouraged to move around roles and gain experience of different areas, which reduced tension between different areas of the library:

"I think there would be a challenge if people didn't move between different areas. So, I was saying earlier that, you know, we've got a couple of people in [name of

Library department – technical], for example, who've had experience of being [job title – subject-based roles], and I think that informs their work, and if they didn't...if we didn't have people in the kind of back-of house teams who'd had experience of direct interaction with students, I think they would be less good at their jobs" (B.INT2.SM)

Although, in contrast, at Case Study E it was acknowledged how previous incremental changes had actually facilitated their move to a functional structure:

"It was probably an easier step for us to make than a lot of other ones because we had Faculty specific liaison, not subject-specific liaison...I can imagine that being much more problematic in other institutions where they do have those very strong School or discipline-based Library roles and those very historic connections." (E.INT5.L)

Many senior managers also acknowledged that they were working within the constraints of the historical decisions that had been made regarding the organisational structures of their libraries. One senior manager stated *"this is not what we would have if we had a blank piece of paper" (B.INT2.SM)* and others also referred to the challenge of not starting with a 'blank piece of paper'. Due to past decisions regarding organisational structures, as well as contextual factors, such as the size of the university and the number of current and former site libraries, there was a wide variation in the number of staff at each case study site. Consequently, since, as previously mentioned, funding for extra library staff was rare; this meant that senior managers had to adapt their organisational structures to meet new challenges and changing responsibilities within the constraints of their current staffing overheads, whether they were undergoing incremental change or a restructure. This was leading to not only variations in organisational structures, but also in salaries across the sector.

salary grade as librarians, however at Case Study D, due to historical decisions they were at a lower grade. As one senior manager stated:

"...what I don't have is the luxury of is promoting all the [job title – academic skills]...and I don't want the hassle of downgrading the Library staff down to a lower grade. So, there's been a pragmatic element of that at the moment. If I'm starting on a plain, you know, a plain sheet of paper...would I have them the same or not? I don't know. I would never have that luxury." (D.INT2.SM)

When participants discussed how they were not working with a 'blank piece of paper', they were not just referring to the organisational structure, but also to the people in the structure. As one participant stated, *"I think [the] people who assume the roles within the structure are so important as to how that structure is implemented and how the potential of that structure is realised" (D.INT6.L).* The people working in the library appeared to have a huge influence on the choices senior managers were making regarding structures, since leaders were often creating and adapting structures to fit the staff they had. Even where libraries had chosen to restructure, whilst some people may have decided to leave, most stayed and were incorporated into the new structure. Although, it was acknowledged that the people working in the library did not just influence the decisions made regarding structures but also how effectively they were deemed to be working. As one participant stated:

"I do think the organisational structure, you can, as I said, you can spend a lot of time and effort tinkering with that, but actually if you don't have the people's attitude and you don't create the right atmosphere, then actually the structural changes don't make much difference." (D.INT2.SM)

The influence of the people working in the libraries on the decisions made regarding the choice of structure and its effectiveness included the people in leadership positions in the library. It was clear that some library leaders had a preference for a particular structure, with one senior

manager of a library with subject-based structure stating how *"having started out as a subject librarian I do...I have quite a lot of sympathy with subject librarians, I think it's fair to say." (B.INT2.SM).* In comparison, another senior manager of a functional-based structure had also started out as a subject librarian but when discussing the decision to restructure around functional teams they stated how *"it started to make sense and I had to think about letting go of my past...but it really challenged my preconceived ideas" (C.INT1.SM).*

Leadership style also had a huge impact on how effective structures were. As one participant in working in a functional structure stated:

"...people who work in traditional structures are achieving fantastic things, delivering great services, within those structures. You know, I think part of it's down to leadership, and what they expect and what you're allowed to do and what you're empowered to do" (F.INT7.M)

The importance of leadership was demonstrated at Case Study E where a new Head of Service had been appointed after a functional restructure and when asked about the effectiveness of the structure one participant stated how:

"I think if you'd have asked me this 12 months ago I would have said rip it up and start again...But the experience of working in it for longer and having the librarians trusted to go off and experiment with and explore opportunities has made me see that actually the structure in itself isn't necessarily as issue one way or the other. It's about what you do with it."(E.INT7.M)

The leaders of the library and their style also affected the challenges people faced in the structures. For example, it was previously discussed that in functional structures some staff were worried about career progression being restricted as they focused on one functional area, however, these fears could be alleviated if leaders allowed and promoted more cross-team working and shadowing, which

could also improve silo working. One participant who had been restructured into a functional team wanted their managers to provide such opportunities:

"So, I'm trying to just see if I can, at least collaborate more, with my [name of team – teaching and learning] colleagues around things. For example...because I do all the reading lists stuff, we do kind of teach the academics how to use that, but it's sort of fairly limited...I think I am going to be able to work, with [name of team – teaching and learning] colleagues on things like reading strategies and...training sessions with student on how to use your reading list and, because it does link with what I do and there's a gap in that, what the [name of team – teaching and learning] do, they don't really support, like reading skills, if that makes sense. So, I personally am looking for, just the chance to...yeah, keep my toe in with that kind of side of things...because I'm quite early on in my library career, I do worry that it will limit me if I go for other jobs... because I didn't get much chance to do a lot of teaching in the first place... I do worry about going for other jobs." (C.INT2.L)

4.7 Summary of the chapter

This chapter has presented the findings from the initial qualitative strand of the mixed methods research design that consisted of a multiple comparative case study. It has been structured around the key themes that emerged, and began with a discussion of the common drivers academic libraries are experiencing to change their structures, as well as the specific drivers associated with both carrying out a functional restructure as well as maintaining a subject-based structure and adapting structures incrementally instead. The main advantages and challenges of subject and functional structures were then outlined. Significantly, many of the advantages and challenges of

subject structures are the opposite of those for functional structures, and therefore the ways all of the case study libraries were attempting to combine elements of each type to balance these out was also discussed and the distinct differences emerging between the structures was highlighted. Furthermore, the resulting difference between the types of functional team, how they operated and the advantages and challenges they each faced was also explored. Finally, the contextual factors that were influencing both the choice of structure and the effectiveness of these structures were examined.

5. Library Directors' Survey Findings

5.1 Introduction

This chapter presents the findings of the library directors survey that formed the second phase of the exploratory, sequential mixed methods design of this research, and which was developed from the findings of the multiple comparative case study that were presented in Chapter 4. The findings of this second stage of the research are presented below and are structured around each section of questions in the questionnaire.

5.2 Demographics of survey respondents

Of the 140 institutions that were identified as the population to be surveyed (the criteria for eligible institutions is explained in the Methodology chapter), 54 complete responses were returned for the library directors' survey. This is a response rate of 39%. The survey asked for each respondent to provide the name of their university so that descriptive statistics could be gathered on the demographics of the participating institutions. The demographic information gathered included type of institution; UK country; 2019/20 FTE student enrolment numbers for all levels of study⁴, and whether or not the university is a specialist institution. Table 5.1 details the descriptive

⁴ 2019/20 FTE student enrolment figures for all levels of study were obtained from the Higher Education Statistics Agency (HESA) - <u>https://www.hesa.ac.uk/news/27-01-2021/sb258-higher-education-student-statistics</u>

statistics of the respondents' institutions and compares them to the distribution of the whole

population of 140 institutions that could have responded.

	Observed number of participating institutions	Observed percentage of participating institutions	Percentage of the population	Expected number of institutions in the sample	Residual (observed number – expected number)
Type of institution					
Russell Group	13	24.1	17.1	9.3	3.7
Pre-92	16	29.6	28.6	15.4	0.6
Post-92	25	46.3	54.3	29.3	-4.3
TOTAL	54	100	100	54	
Country	L				
England	44	81.5	82.1	44.4	-0.4
Scotland	6	11.1	10.7	5.8	0.2
Wales	2	3.7	5.7	3.1	-1.1
Northern Ireland	2	3.7	1.4	0.8	1.2
TOTAL	54	100	100	54	
2019/20 FTE student numbers					
Under 5,000	3	5.6	14.3	7.7	-4.7
5,000-14,999	13	24.1	29.3	15.8	-2.8
15,000-24,999	19	35.2	35.0	18.9	0.1
Over 25,000	19	35.2	21.4	11.6	7.4
TOTAL	54	100	100	54	
Specialist institution					
Yes	1	1.9	13.6	7.3	-6.3
No	53	98.1	86.4	46.7	6.3
TOTAL	54	100	100	54	

Table 5.1: Descriptive statistics for respondents' institutions in the Library Director survey

Table 5.1 illustrates how responses were received from a wide range of the demographic categories, with none of the categories not represented in the sample. However, in order to determine if the sample representative of the 140 institution identified in the population, a chi-square goodness of fit test was performed on SPSS for the type of institution, student enrolment numbers and specialist institutions. A chi-square goodness of fit test could not be performed for the UK country because the expected frequencies for both Wales and Northern Ireland were below 5. The results of the chi-square goodness of fit tests for the other three characteristics are presented in Table 5.2.

Category	Chi-Square	Df	Asymp. Sig. (<i>p</i>)
Type of institution	2.126	2	0.345
Student enrolment numbers	8.086	3	0.044
Specialist institutions	6.287	1	0.012

Table 5.2: Chi-square goodness of fit tests

If the standard significance level of p = 0.05 is used, then the sample is not statistically different from the population in terms of the type of university. However, regarding student enrolment numbers and specialist institutions there is a statistically significant difference between the sample and the population. Therefore, there are limits to how far the results can be generalised to the whole population. There was a self-selection bias towards library directors from larger, nonspecialised institutions, suggesting that the issues around the organisational structures of academic libraries being researched are of more interest and relevance to the library directors from such institutions. This is perhaps unsurprising considering, not only do specialised universities tend to be smaller institutions, but it is possible that since libraries at specialist universities have fewer subjects to support and libraries at smaller institutions are supporting fewer students they do not face the same issues regarding subject vs functional structures. It is also possible that smaller institutions have fewer library staff, which could limit their choice of organisational structure.

5.3 Institutional information

Respondents were asked in the survey to provide some additional information about their institutions (Q2 and Q3) that the researcher would not be able to obtain independently, and which could be used for later analysis to establish if there is any relationship with library organisational structures.

Figure 5.1 represents how the library at each participating institution was structured within the overall institution. While in 43% (23) of the institutions the library was structured separately, the majority were structured with other university departments. However, the departments they were structured with differed. Notably, of those libraries structured in divisions containing other university departments, the majority had been placed with either IT services (30%) or student services (19%). Therefore, the six case studies used in the qualitative strand of this research were not representative in terms of how academic libraries are structured within the university across the sector since the majority in the case studies were structure with student services. Interestingly, only one participating institution in the survey had been structured with Estates/Facilities (2%), with a higher percentage of libraries are largely viewed by university leadership as a service, rather than a building to be managed.

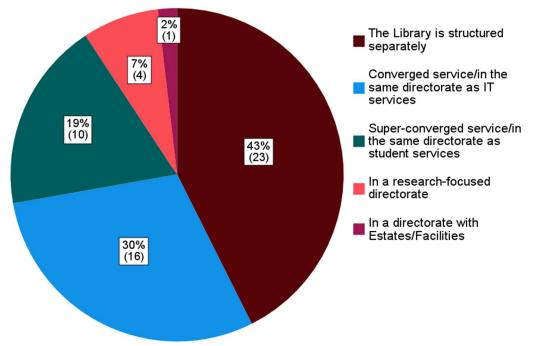


Figure 5.1: Q2 - How is the library structured within the overall institution? (n=54)

However, the variety of university departments with which academic libraries are grouped indicates a lack of consensus and clarity in the sector as to the focus of the services academic libraries provide, as well as how academic libraries and their services integrate with the rest of the university. The comments provided by the participating library directors further illustrated this, with academic libraries being placed in directorates with a range of other departments, which included:

- academic quality
- digital learning
- timetabling
- archives and special collections
- museums and galleries
- educational development
- records management
- wellbeing
- business analysts

- careers and records management
- learning technologies
- corporate services
- finance
- audio-visual services
- equality, diversity and inclusivity
- VLE, student systems and online learning delivery

When the position of the library within the institution is compared to the type of university (Table 5.3), it is of note that Post-92 universities have a higher percentage of participating institutions where the library is structured with student services than both Russell Group and Pre-92 universities. This is perhaps unsurprising due to the traditional teaching-focus of these institutions; however, this makes it noteworthy that Post-92 universities also have the highest percentage of libraries structured into research-focused directorates. In contrast, Pre-92 universities, have a surprisingly low percentage of participating institutions where the library is structured with student services compared to the other types of university.

			Туре	of Univer	sity	
			Russell Group	Pre-92	Post-92	Total
Position in the institution (Q2)	Converged service/in the same	Count	4	5	7	16
	directorate as IT services	% within Type of University	31%	31%	28%	30%
	Super-converged service/in the same	Count	2	1	7	10
	directorate as student services	% within Type of University	15%	6%	28%	19%
	In a directorate with Estates/Facilities	Count	0	1	0	1
		% within Type of University	0%	6%	0%	2%
	In a research- focused directorate	Count	1	1	2	4
		% within Type of University	8%	6%	8%	7%
	The Library is	Count	6	8	9	23
	structured separately	% within Type of University	46%	50%	36%	43%
Total		Count	13	16	25	54
		% within Type of University	100%	100%	100%	100%

Table 5.3: Contingency table for position in the institution (Q2) and type of university

Participants were also asked how they would describe the governance of their institution, and the results are displayed in Figure 5.2. This shows that half (27) of the respondents would describe the governance as a combination of centralised and distributed, and 44% (24) would describe it as completely centralised. Therefore, the vast majority of the library directors identified some degree of centralisation to the governance of the parent institution, with only two library directors in the sample identifying the governance as federated/distributed amongst academic departments. Notably, when a contingency table was calculated for university governance (Q3) and type of university, library directors from Post-92 universities were more likely to identify the governance of their institution as fully centralised (Table 5.4). The table shows that 76% of Post-92 university library directors identified the governance as centralised compared to only 15% and 19% of Russell Group and Pre-92 university library directors respectively.

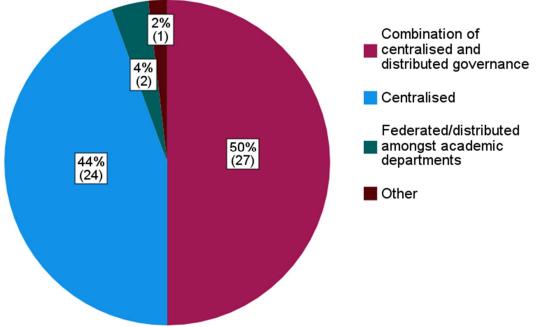


Figure 5.2: Q3 - How would you describe the governance of your institution? (n=54)

			Туре	of Univers	sity	Total
			Russell Group	Pre-92	Post- 92	
Governance	Centralised	Count	2	3	19	24
(Q3)		% within Type of University	15%	19%	76%	44%
	Federated/distributed	Count	1	0	1	2
	amongst academic departments	% within Type of University	8%	0%	4%	4%
	Combination of centralised and distributed governance	Count	9	13	5	27
		% within Type of University	69%	81%	20%	50%
	Other	Count	1	0	0	1
		% within Type of University	8%	0%	0%	2%
Total		Count	13	16	25	54
		% within Type of University	100%	100%	100%	100%

Table 5.4: Contingency table for university governance (Q3) and type of university

5.4 Organisational structures

The participating library directors were asked a series of questions relating to the organisational structure of their library. Figure 5.3 shows whether or not the participating libraries included subject librarians in their structure (Question 4). Notably, the vast majority still did have subject librarians, with only six library directors stating that their libraries did not have subject librarians. Of these six, when they were asked in Question 5 if their organisational structure had contained subject librarians in the last 10 years, interestingly two stated they had not, which demonstrates how some libraries had created functional structures before the high-profile restructure at the University of Manchester in 2012.

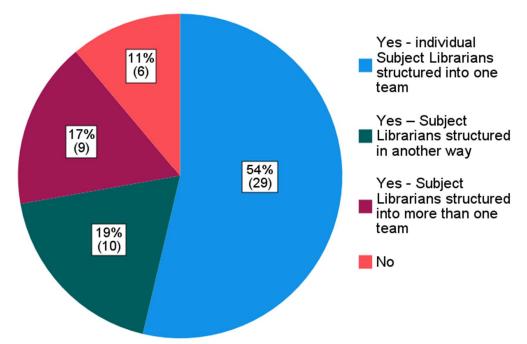


Figure 5.3: Q4 - Does your Library's structure contain Subject Librarians (or equivalent roles)? (n=54)

Contingency tables were calculated for Question 4 and type of university, UK country, student enrolment numbers, position within the institution and governance. There was little relationship that could be seen between the use of subject librarians and type of university, with two institutions from each type of university indicating that they do not use subject librarians (Table 5.4). While generalisations cannot be made, there were some noteworthy findings from the other contingency tables. Firstly, all of the academic libraries that did not have subject librarians were in England (Table 5.6), indicating that the trend towards functional structures might not be occurring in Scotland, Wales and Northern Ireland. Secondly, while size of university in terms of student numbers does not seem to impact on whether or not subject librarians are used, at smaller universities subject librarians were not being structured into teams (Table 5.7). This is possibly due to smaller institutions having fewer staff. Thirdly, it was surprising that all of the participating libraries that were in the same directorate as student services still used subject librarians, since two of the case studies with functional structures from the qualitative strand of the research were structured with student services (Table 5.8). This suggests being in a student-focused directorate does not influence decisions to dispense with subject librarians in order to integrate better with other student services. Finally, regarding the governance of the institutions, it is unsurprising that both participants that identified the governance of their institutions as federated/distributed had subject librarians, but 22 (92%) of the institutions with centralised governance also still included subject librarians in their structures as well (Table 5.9).

			Туре	of Unive	rsity	
			Russell Group	Pre-92	Post-92	Total
Do you have Subject	Yes - individual Subject	Count	5	8	16	29
Librarians? (Q4)	Librarians structured into one team	% within Type of University	38%	50%	64%	54%
	Yes - Subject Librarians structured into more than one team (e.g. Faculty Teams)	Count	5	2	2	9
		% within Type of University	38%	13%	8%	17%
	Yes – Subject Librarians structured in another way (please explain in the box provided)	Count	1	4	5	10
		% within Type of University	8%	25%	20%	19%
	No	Count	2	2	2	6
		% within Type of University	15%	13%	8%	11%
Total		Count	13	16	25	54
		% within Type of University	100%	100%	100%	100%

Table 5.5: Contingency table for use of subject librarians (Q4) and type of university

				Cou	ntry		
			England	Scotland	Wales	Northern Ireland	Total
Do you have Subject	Yes - individual Subject	Count	22	6	0	1	29
Librarians? (Q4)	Librarians structured into one team	% within Country	50%	100%	0%	50%	54%
	Yes - Subject Librarians structured into	Count	6	0	2	1	9
	more than one team (e.g. Faculty Teams)	% within Country	14%	0%	100%	50%	17%
	Yes – Subject Librarians structured in another way (please explain in the box provided)	Count	10	0	0	0	10
		% within Country	23%	0%	0%	0%	19%
	No	Count	6	0	0	0	6
		% within Country	14%	0%	0%	0%	11%
Total		Count	44	6	2	2	54
		% within Country	100%	100%	100%	100%	100%

Table 5.6: Contingency table for use of subject librarians (Q4) and country

			2019/20	FTE studen	2019/20 FTE student enrolment numbers				
			Under 5,000	5,000- 14,999	15,000- 24,999	Over 25,000	Total		
Do you have Subject	Yes - individual Subject	Count	2	9	9	9	29		
Librarians? (Q4)	Librarians structured into one team	% within Student enrolment 2	67%	69%	47%	47%	54%		
	Yes - Subject Librarians structured into more than one team (e.g. Faculty Teams)	Count	0	0	3	6	9		
		% within Student enrolment 2	0%	0%	16%	32%	17%		
	Yes – Subject Librarians structured in another way (please explain in the box provided)	Count	0	2	6	2	10		
		% within Student enrolment 2	0%	15%	32%	11%	19%		
	No	Count	1	2	1	2	6		
		% within Student enrolment 2	33%	15%	5%	11%	11%		
Total		Count	3	13	19	19	54		
		% within Student enrolment 2	100%	100%	100%	100%	100%		

Table 5.7: Contingency table for use of subject librarians (Q4) and 2019/20 student enrolment numbers

				Positi	on in the insti	tution		
			Converged service/in the same directorate as IT services	Super- converged service/in the same directorate as student services	In a directorate with Estates	In a research- focused directorate	The Library is structured separately	Total
Do you have Subject	Yes - individual Subject	Count	11	4	1	3	10	29
Librarians? (Q4)	Librarians structured into one team	% within Position in the institution	69%	40%	100%	75%	43%	54%
	Yes - Subject Librarians structured into more than one team (e.g. Faculty Teams)	Count	2	3	0	0	4	9
		% within Position in the institution	13%	30%	0%	0%	17%	17%
	Yes – Subject Librarians structured in another way (please explain in the box provided)	Count	1	3	0	0	6	10
		% within Position in the institution	6%	30%	0%	0%	26%	19%
	No	Count	2	0	0	1	3	6
		% within Position in the institution	13%	0%	0%	25%	13%	11%
Total		Count	16	10	1	4	23	54
		% within Position in the institution	100%	100%	100%	100%	100%	100%

Table 5.8: Contingency table for use of subject librarians (Q4) and position in the institution

				Governa	ance		
			Centralised	Federated/ distributed amongst academic departments	Combination of centralised and distributed governance	Other	Total
Do you have Subject Librarians? (Q4)	Yes - individual Subject Librarians structured into one team	Count	16	1	11	1	29
		% within Governance	67%	50%	41%	100%	54%
	Yes - Subject Librarians structured into more than one team (e.g. Faculty Teams)	Count	2	1	6	0	9
		% within Governance	8%	50%	22%	0%	17%
	Yes – Subject Librarians structured in another way (please explain in the box provided)	Count	4	0	6	0	10
		% within Governance	17%	0%	22%	0%	19%
	No	Count	2	0	4	0	6
		% within Governance	8%	0%	15%	0%	11%
Total		Count	24	2	27	1	54
		% within Governance	100%	100%	100%	100%	100%

Table 5.9: Contingency table for use of subject librarians (Q4) and governance

Respondents were asked to expand on the place of subject librarians in the organisational structures of their libraries and many of the comments echoed the findings of the qualitative strand of the research regarding the transformation of the subject librarian role. Many indicated that their subject librarians could no longer be described as "traditional" subject librarians, with one participant even stating:

"I don't like the term 'Subject Librarian' and I think it muddies the water. The days of subject specialists (which is what 'Subject Librarian means) ended decades ago and even when aligned to a faculty, they are not traditional 'subject' librarians."

Along with the 17% of respondents who had subject librarians structured into more than one team, which could be a way of attempting to improve team working amongst subject librarians, there was clear evidence in the comments of attempts being made to overcome some of the common challenges related to subject librarians. One respondent mentioned how the role had *"recently been reviewed with the aim to create a more strategic, Faculty-focused role"*. While others indicated that although their librarians were aligned to subjects, this was purely *"to drive engagement"*, with one participant stating how *"they are not bound to those subject areas and general support can be provided for all areas by all [of the librarians]"*. Another participant stated how they did *"not expect [subject librarians] to be subject specialists and [they] can be moved to support other subject areas"*. This would reduce the challenge of single points of failure. Similarly, at another participating institution there were *"Two subject librarians for all subjects"*. Although, in one of the comments the library director alluded to the challenge of inconsistencies in levels of support for different subjects when they stated, *"[Subject Librarians] all work in one team under a manager. Each covers more than one subject and the attention each subject gets varies according to student numbers and demand and academic engagement, as well as librarians experience and interest."*

In the comments, there were also examples of functional elements being incorporated into academic library structures alongside subject librarians. Interestingly, of those participants who stated that they had "Subject Librarians structured in another way" (that is, other than a single team or several subject teams), in the comments many described how they were in teams with other professionals, often also providing student support, such as academic skills advisers, IT support officers, learning technologists, digital skills advisers and maths tutors. While being in the same team, the subject librarian roles appeared to be kept distinct from these other professionals. Some participants also mentioned in the comments having functional research support teams in addition to subject librarians, as well as functional matrix elements to their subject librarian roles.

The following questions in this section (Questions 6-9) further explored the functional elements of the organisational structures of the participating libraries. Figure 5.4 illustrates the answers to Question 6 regarding the types of functional teams or roles libraries had and shows how most libraries were using functional teams. Some participants also mentioned having other functional teams/roles as well (Question 7), these included archives, special collections, student engagement and digital humanities.

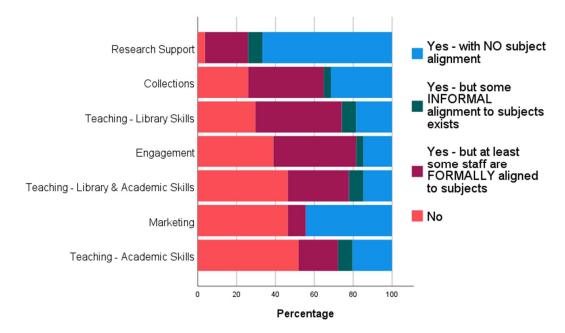


Figure 5.4: Q6 - Does the Library contain any of the following functional teams/roles? (n=54)

Notably, all but one participant indicated that their library had at least one of these functional teams/roles in their structure, although this participant went on to state that "We are a very lean team - I only wish that we did have some of those roles!" This library was one of only two without some form of functional research support. Whilst both of these libraries were unsurprisingly from post-92 universities, there were plenty of examples of other post-92, teaching-led universities having functional research support in their structures. This reinforces the findings of the gualitative strand of the research that established a growing need in academic libraries to provide distinct and separate research support services due to the complex and developing nature of this area. However, it is of note that of the 52 libraries that had research support teams/roles, 69% (36) had no subject alignment. Only functional marketing teams/roles were more likely to have no subject alignment -83% (24) of the 29 libraries with such teams/roles. In contrast, functional Collections, Teaching (library skills), Engagement, and Teaching (library and academic skills) were more likely to be aligned to subjects. Of those with these functional teams/roles, 43% of Collections, 26% of Teaching (library skills), 24% Engagement and 47% Teaching (library and academic skill) were not aligned to subjects. This indicates that library directors perceive it to be more important for these areas to be aligned to subjects, which is interesting since these are the areas often covered by the subject librarian role.

Academic skills teams were the least common functional team/role, although 48% of participating libraries did have one, and it was split as to whether or not these teams were aligned to subject or not – 42% (11) had no subject alignment, 14% (4) had informal subject alignment and 42% (11) had formal subject alignment. This split further highlights the differences in approach to teaching academic skills compared to library skills/information literacy, which was identified in the qualitative strand of the research, and suggests there are different views on the importance of subject knowledge when supporting students to develop these skills.

Furthermore, in terms of whether functional teams had any alignment to subjects, either formally or informally, those who did not have subject librarians in their structures were less likely to have any subject alignment in their functional teams. As Figure 5.5 shows, there were only a couple of instances of these libraries having functional teams with subject alignment, and notably, this was only for Engagement, where one of the six libraries had this subject aligned, and Collection Engagement, where this was subject aligned for two of the six libraries. Interestingly, despite Case Study D having functional research support and teaching support teams that were aligned to subjects, this was not the case for any of the libraries participating in the survey who did not have subject librarians. In comparison, as demonstrated in Figure 5.6, where libraries had subject librarians, their functional teams were more likely to be aligned to subjects in some way. Of those with subject librarians who stated their libraries has these functional teams; 26% of Research Support, 59% of Collections, 71% of Teaching (library skills), 72% of Engagement, 68% of Teaching (library and academic skills), 19% of Marketing and 50% of Teaching (academic skills) teams were formally subject aligned.

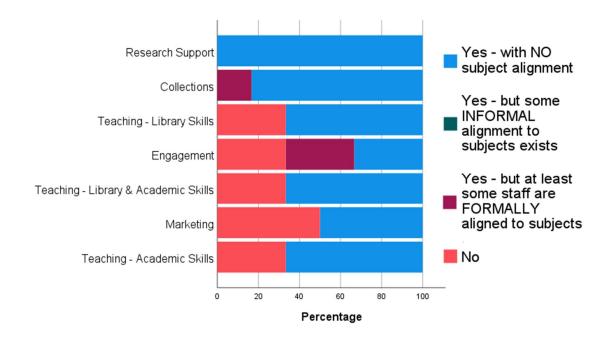


Figure 5.5: Functional teams of libraries without subject librarians (n=6)

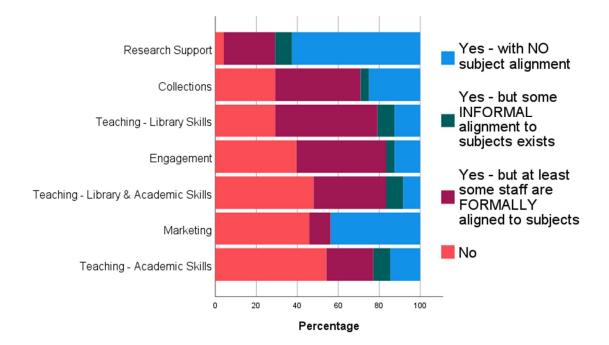


Figure 5.6: Functional teams of libraries with subject librarians (n=48)

Questions 8-10 investigated other functional elements that could exist in the organisational structures of academic libraries – matrix structures, projects teams and individual staff leading on activities – and revealed that many of the participating libraries were using these functional elements alongside the functional teams identified in Figure 5.4. Matrix structures were the least used, with 37% (20) of the participating institutions adopting a matrix element in their structures. In comparison, 72% (39) used project teams and 79% (42) assigned professional staff activities to lead on. From the comments made, it was clear a matrix structure was sometimes adopted as a way to manage libraries that had multiple sites, rather than to assign functional roles, although there were examples of this occurring. One participant commented how they had implemented a matrix structure due to budget cuts and the resulting *"rapidly decreasing number of staff"*, which made it impossible to have a functional team structure. While another commented how a matrix structure had evolved *"with the aim to break down silos and enable agility across teams"*. This was noteworthy since silos had been identified in the qualitative strand of the research as a potential challenge in both subject and functional structures. It was apparent from some of the comments

made regarding project teams that many were also using these as a way to connect teams and breakdown silos.

Notably, many of the comments from the libraries with subject librarians alluded to how, by using project teams and assigning activities to lead on, their subject librarians did have a functional element to their role, since these projects and activities were *"not subject focused"*. Although, those libraries that did not have subject librarians were still often using project teams and assigning responsibilities to lead on. However, only one discussed using project teams for subject engagement similar to Case Study E. Altogether, there were only five participating libraries that were not either using project teams or assigning responsibilities to lead on.

Finally, in this section, participants were asked to categorise the organisational structure of their library and the results are presented in Figure 5.7. Despite most participating libraries having subject librarians in their structure, the majority of participants classed their structures as some form of hybrid (70%) between subject and functional, suggesting a general acknowledgement that the organisational structures of academic libraries often fall on a spectrum between subject and functional.

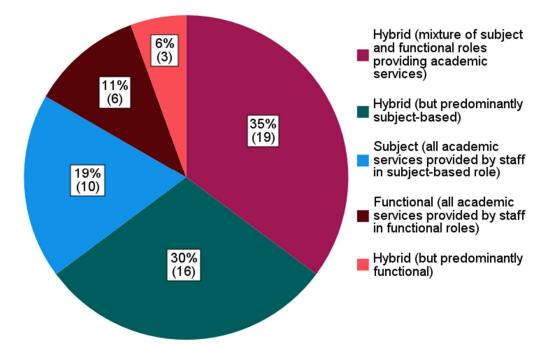


Figure 5.7: Q11 - How would you categorise the organisational structure of the academic services within the Library? (n=54)

Nevertheless, it is noteworthy that while all but one participant identified stated their structure had at least one functional team in Question 6, ten participants still identified their libraries as having a subject structure. Similarly, the six participants that stated their libraries did not have subject librarians (Question 4) went on to identify their structures as functional, yet, in Question 6, two of these stated that at least one of their functional teams had some form of subject alignment (Figure 5.5) and another used project teams for Faculty engagement. There is also the potential in functional structures that the library directors are unaware of some informal splitting of responsibilities around subjects. Therefore, it appears there are very few that could describe the element of their library's structure that provides academic services as purely subject or functional, with most combining elements of both albeit to varying degrees.

The comments made by participants regarding the categorisation of their library's structure echoed how most structures were a blend of subject and functional. Many of the comments suggested that support for students is often structured around subjects using subject librarians, with one participant stating how their subject librarians focus on *"teaching and content"*, while support for research was structured functionally. This implies a potential narrowing of the subject librarian role to focus mainly on student support. However, one participant commented how *"the functional roles are not necessarily traditional library roles"*, implying that academic libraries are adopting new roles and responsibilities which are often being added onto already existing subject structures in the form of functional teams and roles.

5.5 Qualifications of professional staff

The results of the qualitative strand of the research suggested that there was a movement towards bringing in people from outside of the librarianship profession who had a different skillset to librarians. Therefore, in the survey participants were asked whether the staff in the different teams/roles in their libraries had library qualifications or not. Figure 5.8 shows the results, with all "N/A" answers removed to aid comparison. While there are very few instances where a team/role does not include anyone with a library qualification, there are clear attempts being made to integrate other professionals into academic library structures. Out of the 54 libraries, only seven (13%) did not identify any instances of other professionals working in academic services roles in the library. Interestingly, there was no obvious connection between these seven libraries, they included all three different classifications of university, were of various sizes in terms of student numbers and the library was structured in various placed within the parent institution.

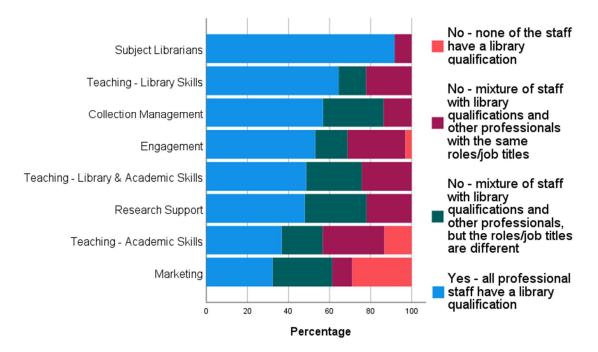


Figure 5.8: Q12 - Do the professional staff in the following teams/roles all have a library or information management/studies qualification (or are working towards one)? (N/A answers removed)

For the majority of subject librarian teams, all professional staff had a library qualification, although, interestingly, at four libraries subject librarians had been structured into teams with other professional staff who had the same job title as the librarians. Therefore, even for subject librarian roles, a librarianship qualification is not always essential. Significantly, one participant went on to state that at their library *"More importantly, all Subject Librarians are expected to have a teaching qualification"*. Nevertheless, it is clearly still unusual for subject librarians to be in teams with other professional staff, whereas it is more common for functional teams to contain a mix of professionals – 8% of Subject Librarian teams contain other professionals compared to 50% of functional teams. However, it is noteworthy that the functional teams/roles that focus on activities that are more traditionally part of a subject librarian's remit, such as collection management and teaching library skills/information literacy, are the teams most likely to contain only staff who have library qualifications. Of the libraries that had functional teams/roles for teaching library skills, 64% only contained staff with a library qualification, and 57% of functional collections teams/roles only

contained staff with a library qualification. This is in comparison to 48% of Research Support teams/roles, 37% of Academic Skills teams/roles and 33% of Marketing teams/roles.

It is noteworthy that the functional teams/roles where there are instances of none of the staff having a library qualification are mainly those that could be seen as being less traditional – teaching academic skills and marketing – although there are clearly many examples of librarians in these roles. Interestingly, at one library none of the staff in engagement roles had a library qualification. Whilst engagement could be seen to be a traditional part of the subject librarian role, this suggests the need for a library qualification in this type of role is beginning to be questioned. As previously discussed in the qualitative results, this was also being questioned at some of the case studies.

Overall, where a team contained a mix of different professionals there is a split as to whether the professionals have the same roles or if they are kept distinct from each other. However, when we look at the results for this question based on if the participant identified their structure as subject-based (Figure 5.9) or functional (Figure 5.10) in Question 11 we can see some differences.

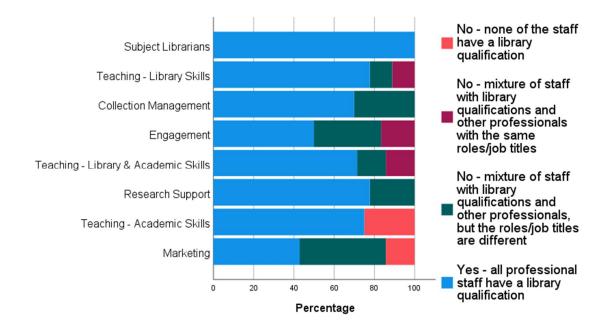


Figure 5.9: Professional qualification of staff in teams in subject-based structures (N/A answers removed)

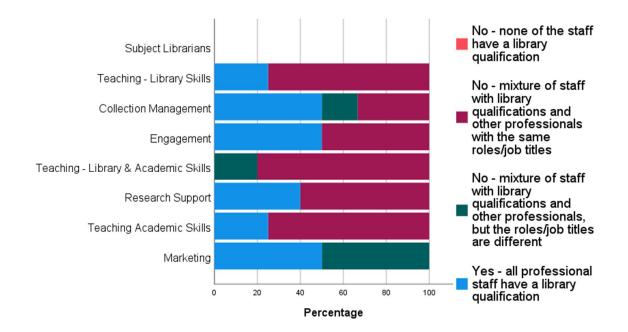


Figure 5.10: Professional qualification of staff in teams in functional structures (N/A answers removed)

Those with functional structures not only appear to be more likely to have teams that contain librarians mixed with other professionals, but they also appear to not differentiate between different professionals in these teams as much as those with subject structures. In the libraries that were identified as having a functional structure, they all had at least one team where librarians were mixed with other professionals and 67% (4 of 6) had at least one team where librarians were mixed with other professional in the same roles. In comparison, 35% (17 of 48) of the rest of the participating libraries and 10% (1 of 10) of libraries that were identified as having subject structures had at least one team where librarians were mixed with other professional structure might promote the removal of professional boundaries in an academic library. There is the potential that, in contrast, since the subject librarian role is undoubtedly tailored for those with a librarianship qualification, even if it is not officially an essential requirement, this emphasises the boundaries between professionals and leads to other professionals having distinct and separate roles in the library. Interestingly, none of the libraries with a functional structure identified having a team/role where there were no staff with a library qualification, whereas for the libraries with a subject-based structure there were instances of both

academic skills and marketing teams/roles not containing anyone with a library qualification. For example, one participant stated how they *"…we have the [academic skills team]. This is staffed by learning development specialists"*. This again suggests in subject-based structures, whilst different professionals are generally being brought in, they are often in roles distinct or separate from librarians.

For Question 13, participants were asked to elaborate on the different professionals working in the library and a variety were mentioned:

- Learning Developers
- Archivists
- Learning Technologists
- IT professionals
- staff with marketing degrees
- staff with teaching degrees
- lecturers
- digital specialists
- staff with PhDs in research support roles

As one participant stated *"We have many professional staff that are not librarians."* It was clear that many of the participating library directors were not concerned with their staff having a library qualification. This included one participant stated how *"There is an increasing move to relevant knowledge/skills/experience as an alternative"* and another that asserted, *"...it does not matter to me whether someone has the piece of paper, only what they can deliver. I see a need to diversify the skills we have in the Library"*.

There were only a couple of instances where a participant mentioned that a library qualification was a requirement, and unsurprisingly these were subject librarians and some collections roles. One participant alluded to how at their library a clear distinction was made

between librarians and other professionals because they had a policy "that any job title that incorporates librarian in the title must have a recognised qualification". However, altogether, there was a clear desire expressed by most participants to "diversify the skills in the Library" through the integration of different professionals into their library structures, but there are different approaches to whether or not these professionals were differentiated from librarians.

5.6 Library services and responsibilities

The library directors who participated in the survey were asked whether their libraries were providing a range of services (Figure 5.11) and how important they felt it was for their library to provide these services (Figure 5.12). There are a few interesting findings to note when comparing the results. Firstly, 83% (45) of the participating libraries were still 'Consistently providing' a named contact for academic departments, although, in comparison, only 60% (32) actually rated named contacts as being 'Very important'. There were in fact four library directors (7%) who stated their library was not providing named contacts for subjects and who also rated named contacts as being 'Not important at all'. Unsurprisingly, three of these identified their structure as functional, although one did identify their structure as 'Hybrid (but predominantly functional)' and had also stated their structure had subject librarians. This could indicate that the need for a named contact for subjects is being questioned by some in the sector.

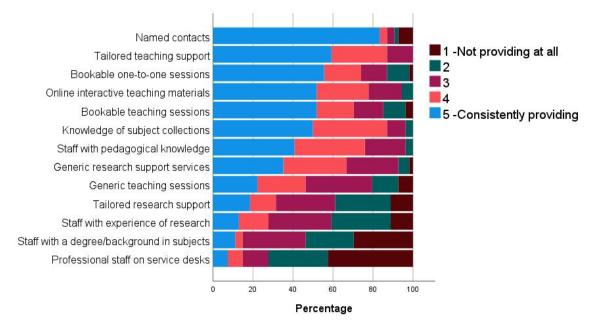


Figure 5.11: Q14a - Rate whether the Library provides the following (n=54)

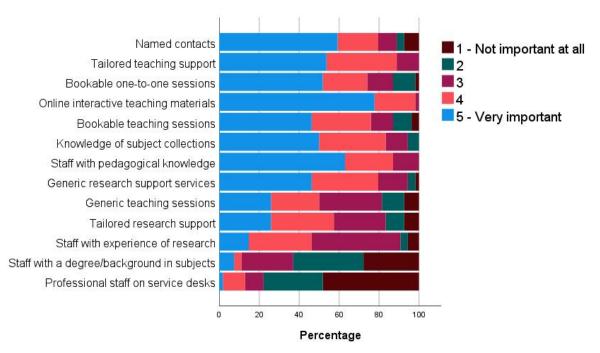


Figure 5.12: Q14b - Rate how important you deem it to be that the Library provides the following (n=54)

Nevertheless, named contacts are clearly prevailing in academic library structures; yet, the need for staff to have a degree/background in the subjects they support is not. Although, it should be noted that this is not a requirement that has disappeared completely since six library directors (11%) rated that they were 'consistently providing' this, and four (7%) of these rated it as being 'Very

important'. Altogether, there is some differences in opinion amongst library directors regarding named contacts and the need for staff with a degree/background in subject, which will clearly influence their decisions regarding structures. Although, knowledge of subject collections was still viewed as important, with none of the library directors stating that they were not providing this or that it was not important.

However, while knowledge of subject collections was still important, staff with pedagogical knowledge was clearly an area many library directors were wanting to grow - 41% (22) stated they were 'Consistently providing' this, while 63% (34) stated it was 'Very important' and no one declared it was 'Not important at all'. Another service many library directors appeared to want to grow was 'Online interactive teaching materials' since 52% (28) stated they were 'Consistently providing' this and 78% (42) deemed it to be 'Very important'. Although, it is likely this has been influenced by the move to online teaching during the COVID-19 pandemic. Nevertheless, both of these areas could be seen to be outside the traditional librarianship skillset and indicate a need to bring in people from outside the profession. These two main areas library directors appear to want to develop were also related to teaching support and, overall, the service associated with teaching support were clearly deemed to be some of the most important services libraries were providing, with 'Tailored teaching support', 'bookable one-to-one sessions' and 'bookable teaching sessions' all ranking highly. This is interesting considering the focus often placed on developing research support services in academic libraries.

Another interesting finding is that generally, tailored (i.e. subject-specific) teaching support appears to be provided more, and is deemed to be more important, than tailored research support -59% (32) of library directors stated they were 'Consistently providing' tailored teaching support and 54% deemed this to be 'Very important'. In comparison, only 19% were 'Consistently providing' tailored research support and 26% believed this to be 'Very important'. This difference perhaps explains why many libraries have created functional research support teams that are not aligned to

subjects, while maintaining subject librarians who can provide tailored teaching support. Although, the results could also suggest that some library directors would like to provide more research support tailored to subjects.

When the responses of library directors who identified their structures as functional (Figure 5.13 and Figure 5.14) were compared with the responses from library directors who identified their structures as subject-based (Figure 5.15 and Figure 5.16) for Question 14, some noteworthy findings emerged. Firstly, those libraries with a functional structure were more likely to be providing generic teaching sessions than tailored teaching sessions, with four (67%) 'Consistently providing' generic teaching sessions, compared to only one (17%) 'Consistently providing' tailored teaching sessions. Although, four of the six indicated that providing tailored teaching sessions was 'Very important', which appears to corroborate the findings of the qualitative strand of the research that tailoring services in a functional structure can be a challenge.

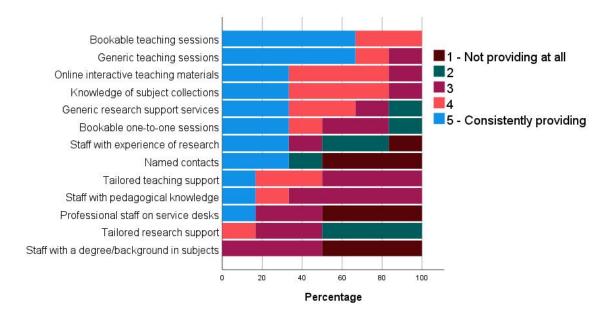


Figure 5.13: Ratings for whether libraries with functional structure provide the following services (n=6)

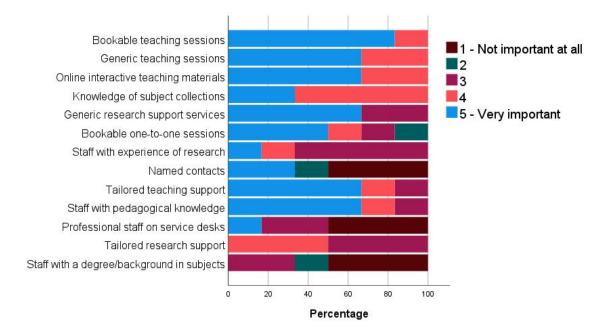


Figure 5.14: Ratings for how important library directors of functional structure deem the following services to be (n=6)

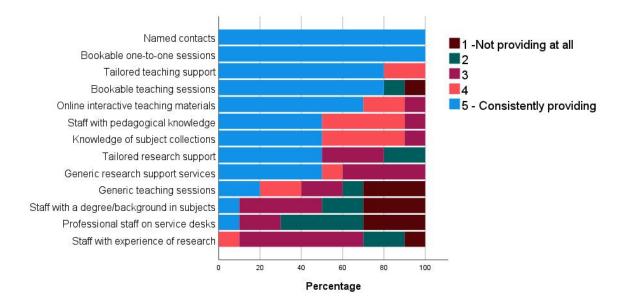


Figure 5.15: Ratings for whether libraries with subject structure provide the following services (n=10)

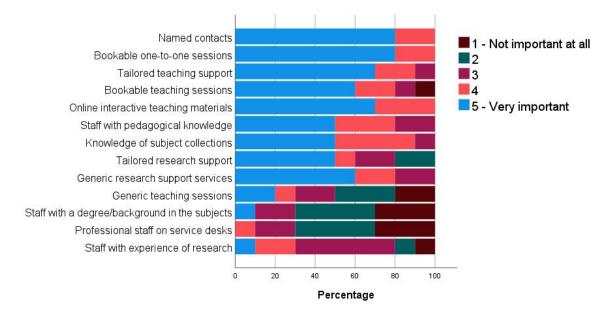


Figure 5.16: Ratings for how important library directors of subject structure deem the following services to be (n=10)

In comparison, for the 10 libraries with a subject structure, eight (80%) indicated that their libraries were 'Consistently providing' tailored teaching sessions and only two (20%) were 'Consistently providing' generic teaching sessions. However, interestingly, three (30%) of the library directors from libraries with subject structures believed it was 'not important at all' to provide generic teaching sessions, while all of the library directors from libraries with a functional structure rated it highly (4 or 5) in terms of importance. This indicates a difference in opinion amongst library directors as to the value of generic teaching sessions, with those from libraries with functional structures appearing to believe them to be more of a requirement.

Concerning generic research support, there was less discrepancy between responses provided by library directors from libraries with functional and subject structures. However, libraries with subject structures were more likely to be providing tailored research support – 5 (50%) of the libraries with subject structures were 'Consistently providing' this, whilst there were no libraries with functional structures 'Consistently providing' this service. This is potentially because subject librarians will often be providing some form of research support to their academic departments

alongside any functional research roles that may exist alongside them. Although, those with subject structures appear less likely to have staff with experience of research. This appears to align with the driver for functional structures to bring in staff with expertise. However, conversely, those with a subject structure appear more likely to have staff with pedagogical knowledge. It is also worthwhile noting that having a functional structure does not negate the use of named contacts for subjects, with two (33%) 'Consistently providing' them. This again illustrates how functional structures are being combined with subject-based elements in some libraries.

With the findings of the qualitative strand of the research suggesting that collection management practices were changing and this could be influencing organisational structures, the survey also explored this further. When library directors were asked how their collection budgets were managed, the majority (59%) were managed by a central team in the library (Figure 5.17). Therefore, it was not just libraries with functional structures that had this centralised approach, and signifies that many subject librarians no longer have budget management as a responsibility. This could be an example of the trend that was observed at Case Studies A and B where more administrative responsibilities were being removed from the role free up their time to focus on other responsibilities. Of the participating libraries, 22% (12) had subject librarians managing budgets, although one commented how "this was a very contentious issue." Many who responded with 'Other' went onto describe in the comments a mixed approach, for example book budgets being managed by subject librarians and journal/e-resource budgets being managed centrally. Although, one participant commented that "this will change to a more centralised approach as we seek to deliver e-textbook solutions." Notably, at none of the libraries was the budget managed solely by academic departments. However, at one library, whilst the majority of the budget was managed centrally in the library, a small percentage was held by academic departments. This participant went on to state that inconsistencies existed regarding how this was managed since "Some departments let the library make all decisions [and] some make every decision themselves."

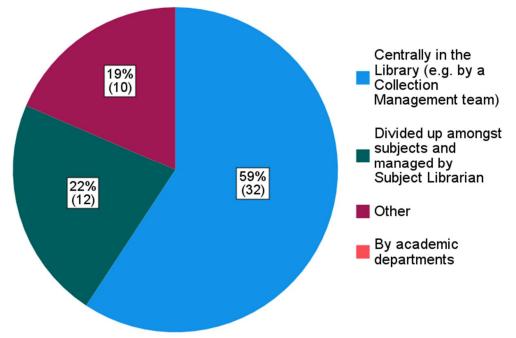


Figure 5.17: Q15 - How are collections budgets managed at your institution? (n=54)

Despite the majority of library directors indicating that their collection budgets were managed centrally, many went on to comment that there is still input from librarians. This can be observed in Figure 5.18, which shows that for the vast majority of libraries there is a balance of backoffice and librarian involvement in collection management to varying degrees, with no one indicating it is purely a back-office role based on automated practices. As Table 5.10 shows, this was even the case for those libraries with functional structures, where it might be assumed that collection management could be more of a back office role due to the lack of subject librarians. Interestingly, one participant who identified their library's structure as being functional stated, *"All staff are involved in engagement to some degree"* and another who identified their library is structure as "hybrid (but predominantly functional) stated, *"We expect all colleagues in the library to engage with academic and students to some degree. We have no back office roles."* This aligns with the previous findings from the case studies, which indicated that functional structures could be used to allow all staff to take ownership of their roles, rather than have all engagement focused through the subject librarian role.

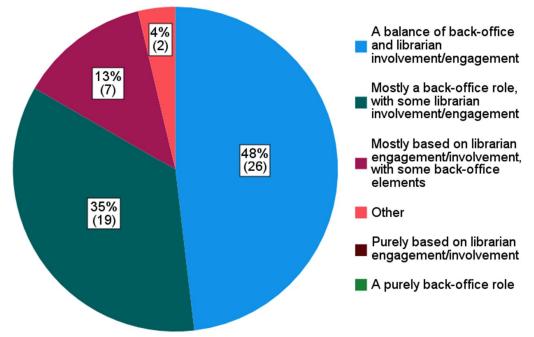


Figure 5.18: Q16 - To what extent is collection management at your library a back-office activity (based on reading lists, academic/student recommendations, usage figure, demand-driven acquisition etc.) or an engagement activity with librarian involvement in building collections? (n=54)

		Type of structure						
			Subject (all academic services provided by staff in subject- based role)	Hybrid (but predominantly subject- based)	Hybrid (mixture of subject and functional roles providing academic services)	Hybrid (but predominantly functional)	Functional (all academic services provided by staff in functional roles)	Total
Type of collection	Mostly a back- office role, with some librarian involvement	Count	5	5	6	1	2	19
management activities		% within Type of structure	50%	31%	32%	33%	33%	35%
	A balance of back-office and librarian involvement	Count	4	7	11	1	3	26
		% within Type of structure	40%	44%	58%	33%	50%	48%
	Mostly based on librarian engagement, with some back- office elements	Count	1	2	2	1	1	7
		% within Type of structure	10%	13%	11%	33%	17%	13%
	Other	Count	0	2	0	0	0	2
		% within Type of structure	0%	13%	0%	0%	0%	4%
Total		Count	10	16	19	3	6	54
		% within Type of structure	100%	100%	100%	100%	100%	100%

 Table 5.10: Contingency table for whether collection management is a back-office or librarian role (Q16) and type of structure (Q11)

Table 5.10 also show that 50% (5) of libraries that were identified as having a subject structure had collection management mostly as a back-office role, again showing how in many cases responsibilities regarding collection management are being removed from subject librarian roles. However, no matter the structure, the level of involvement librarians have with collection development appears to differ in practice, as well as there being clear differences implicit in the comments regarding how library directors view the importance of librarian involvement. Some library directors commented that they would like to increase librarian involvement in collection development, but cited factors such as capacity of librarians and restrictive collection budgets as obstacles for this. As one participant stated, a *"dearth of resources"* had meant that:

"Librarians are involved in understanding usage to a very granular level of detail to decide what is next in line for cancellation or highlighting with academic

colleagues the need for resources to be used. I would very much like the librarians to be building collections but we haven't had that luxury for some years."

There was also a comment from a participant from a library with a functional structure who stated that "would like to increase the librarian involvement but it's a question of capacity." This suggests the reduced involvement of librarians in collection management is often out of necessity, rather than a belief this was no longer required. However, in contrast, some library directors were discussing wanting to reduce librarian involvement in collection management with the aim of freeing up subject librarians "to do more added value teaching and engagement". These differences in opinion amongst library directors around collections management practices, and other services highlighted in this section, will inevitably influence how library directors choose to structure their libraries and could somewhat account for the differences in structures emerging in the sector.

5.7 Other responsibilities

A key finding of the qualitative stage of the research was that academic libraries appeared to be expanding their remits beyond traditional library responsibilities, around collections and information literacy, and this was inevitably affecting their organisational structures. This was particularly noteworthy because the responsibilities being acquired were not consistent for each academic library. Figure 5.19 further illustrates this divergence of responsibilities, as there is a variety of responses regarding the level of library involvement in different areas. Participants also mentioned in their comments other areas their libraries had responsibility for, which included archives, peer-assisted learning, the University Press, support students with specific learning difficulties and digital humanities. This variety of responsibilities will inevitably influence organisational structures, with the potential for different structures to emerge to accommodate the differing responsibilities.

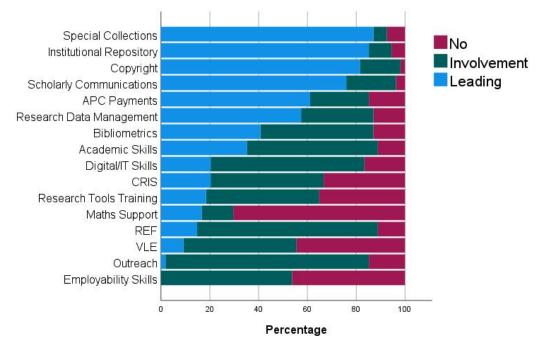


Figure 5.19: Q17 - Is the Library involved in delivering the following services and support within the institution? (n=54)

Unsurprisingly, the vast majority of libraries were leading on special collections within their university, since this is a more traditional collections-related role. However, the rest of the responsibilities do not necessarily have to sit within the library and there is potential crossover with other university departments, yet there were many areas libraries were involved in, and even leading. However, it appears from Figure 5.19 that libraries are more likely to be leading on areas related to research support (e.g. institutional repository, scholarly communications, APC payments, research data management), than student support (e.g. academic services, maths support, VLE). This accounts for why research support teams were the most common functional teams in the participating libraries (Figure 5.4).

Additionally, some interesting findings can be observed when the responses for libraries with functional structures (Figure 5.20) are compared with the responses from libraries with subject structures (Figure 5.21). Firstly, those with functional structures appear to be leading on more areas than those with subject structures. There were examples of libraries with functional structures leading on all but two of the areas (outreach and employability), whilst for six of the areas there are

no examples of subject structures leading, and none of the libraries with a subject structure were involved in maths support. On average, those with a functional structure were leading in seven of the areas, compared to those with a subject structure leading on four. This suggests that as libraries take on more areas of responsibility; these areas become added on to the structure as functional elements, diluting the subject-focus and perhaps influencing decisions to incorporate the responsibilities traditionally held by subject librarians into the structure functionally as well.

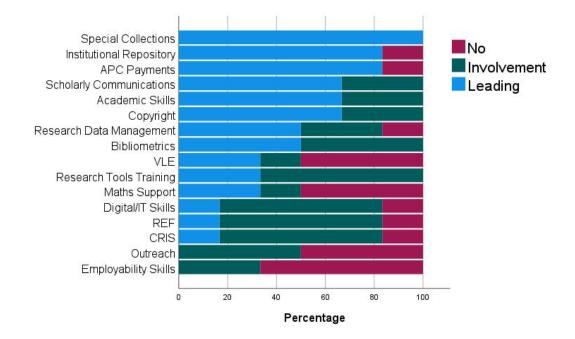


Figure 5.20: Library involvement in services and support (functional structures – n=6)

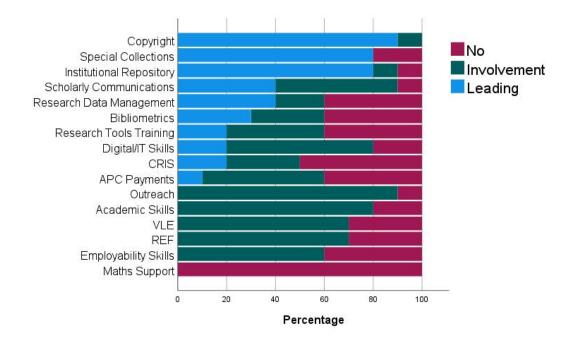


Figure 5.21: Library involvement in services and support (subject structures -n=10)

It is also noteworthy that none of the libraries with subject structures led on any of the areas related to student support, with the majority related to research support. In comparison, for those with functional structures, 67% were leading on academic skills and 33% were leading on both the VLE and maths support. This is interesting since the justification for functional restructures often centres on the need to increase research support, however this appears to be a need for most libraries and, therefore, the decision to remove subject librarians and create a more functional structure might have more to do with the incorporation of additional students support areas into the library remit.

5.8 Restructures

When asked about the approach that had been taken to changing the organisational structure of their library, the majority (65%) stated a mix of formal restructures and incremental

change had been used (Figure 5.22). One reason for this is following a restructure, further incremental changes are often necessary. As stated by one participant, *"We will...review the re-structure...so assess any minor changes that may be useful"*. This also illustrates that the decision between formal restructures and incremental change is not a binary choice for library directors. Notably, some participants remarked that more than one formal restructure had taken place in the last 10 years, although, many of the comments also suggested that while a formal restructure, or restructures, had occurred they were *"now moving more to a model of incremental change."* Interestingly, while it is clear that the vast majority of academic libraries have changed their structures in some way in the last 10 years, with only two participants indicating that no changes had been made and one of them went on to state that changes were *"long overdue."* Overall, it is clear there has been impetus within the sector to change the organisational structures of academic libraries in the last 10 years, with budget cuts often mentioned in the comments as the reason for the need to change structures. As one participant stated, *"None of that quite covers the reality, which has been regular financial cuts and attrition."*

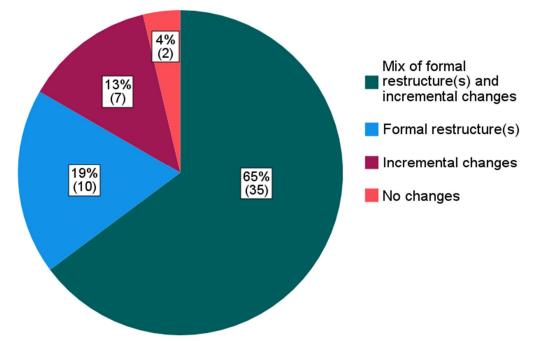


Figure 5.22: Q19 - How would you describe your Library's approach to making changes to the academic services element of the organisational structure in the last 10 years? (n=54)

Participants were next asked about the types of restructures that had been implemented,

with 44% (24) having carried out a functional restructure (Figure 5.23) and 31% (17) having completed a different type of restructuring exercise (Figure 5.24).

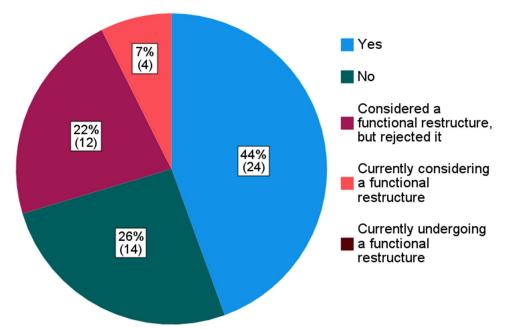


Figure 5.23: Q20 - Has the academic services part of your Library undergone a restructure around functional teams in the last 10 years or have you considered it? (n=54)

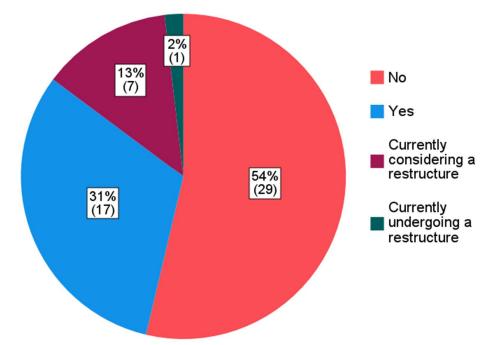


Figure 5.24: Q21 - Has the academic services part of your Library undergone a restructure in the last 10 years that was not around functional team, or are you currently considering it? (n=54)

It is clear that the number of libraries who have carried out a functional restructure is more than the number who do not have subject librarians, indicating that there are varying degrees of functional restructures that can occur. Some participants even indicated in the comments that their functional restructures had not removed subject librarians, but had reduced their numbers in order grow functional areas. This suggests that even where subject librarians have been retained their prominence within the library is often diminishing. Notably, at one library, such a restructure had been blocked because, as the participant put it, *" the Subject Librarians were able to mobilise massive support and sympathy from their departments."* This illustrates the powerful influence subject librarians can have within an academic library, with this participant going on to state that *"we should have recalled to our mind that bad subject librarians are liked by their departments, average subject librarians are loved by them, and good subject librarians are deified by them."* They expressed how instead of a restructure it would have been best to make the changes more incrementally *"through natural wastage."* This suggests incremental change could be used to evade resistance to organisational change, yet create the same outcome as a formal restructure that reframes the balance of structures away being subject-based and towards being more functional.

Nevertheless, 12 participants (22%) indicated that they had considered a functional restructure, but ended up rejecting it (Figure 5.23). The reasons one participant gave echoed the factors discussed in the qualitative results round staff satisfaction with them listing *"staff having the opportunity to explore different experiences, create expertise in areas but retain a working knowledge of other areas, job satisfaction, fulfilment"* as the reasons for rejecting a functional structure. However, another indicated that the small number of staff they had influenced their decision to retain a subject approach because they *"need teams of sufficient size to provide some measure of backup for individual services, which required a more generalist approach."* This suggests that if a library team is too small then a functional structure could have more problems with single points of failure than a team of subject librarians.

Other restructures appear to have focused on adjusting the subject librarian role to overcome challenges, which illustrates that the incremental changes to subject structures observed in case studies A and B were in some libraries being achieved via a restructure instead. For example, one survey participant discussed how at their library subject librarians had been restructured into teams after deciding, "The subject model worked best for us and was well regarded by our academic Schools." Another participant stated that they "underwent a restructure retaining elements of subject librarianship but changing the role from the very traditional original JD to something intended to be more strategic and engaged with Faculty and Departmental staff at a more senior level." They went on to state that their subject librarians now had an "increased focus on information skills and support for postgraduate students" rather than collections and working of help desks. This in itself could be seen as subject librarians becoming more functional as their role becomes more focused. Although, it is interesting that in two comments from participants it was mentioned how since undertaking a functional restructure further changes had been made to bring back some subject elements, implying that structures can become too functional. As one participant stated, "We implemented a functional approach with no subject links between liaison and departments but have undone that over the last twelve months."

Some of the comments participants made regarding the restructures their library had carried out, alluded to how "*financial pressures"* influenced their decision to restructure. This was interesting since this was not often discussed as a main factor in the qualitative strand of the research. When participants were asked to rate the significance of a range of factors in their decision making to change structures (Figure 5.25), the need to save money was rated as being 'Very significant' by 18 of the participants. Although, five participants rated it as being 'Not significant' at all, indicating this is not an issue for all libraries. Interestingly, all the five libraries that rated it as 'Not significant at all' had implemented some form of functional restructure, whilst the libraries where it was rated 'Very significant' were mixed in their approach to change, with some implementing functional restructures and others restructuring or incrementally changing structure

in some other way. Figure 5.25 show that the factors that were rated as being the most significant (ranked either 4 or 5) were 'Improve team working', 'Instigate a cultural change' and 'Consistency of services'.

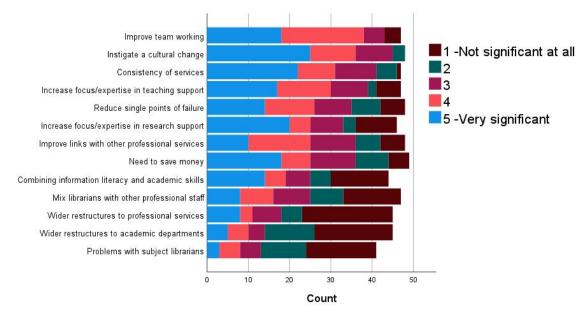


Figure 5.25: Q22 - If your Library's structure has undergone any changes in the last 10 years, or you are currently considering it, please rate the significance of the following in that decision.

When the reasons given for changing structures are compared between those libraries that carried out a functional restructure (Figure 5.26) and those that carried out another type of restructure (Figure 5.27), it is clear that the drivers did not actually differ that much. 'Improve team working', 'Instigate a cultural change' and 'Consistency of services' rank highly for both. This is interesting since these were established as some of the main advantages of functional structures in the qualitative strand of the research. In fact, some other reasons for restructures that might be expected to be more relevant to functional restructures – e.g., 'Mix librarians with other professional staff' and 'Combining information literacy and academic skills' – were rated as 'Very significant' by some participants that had carried out other types of restructures. Therefore, this implies that attempts are being made to restructure subject teams to achieve the same results as functional restructures in the drivers. It is noteworthy that for all types

of restructure 'Problems with Subject Librarians' ranked relatively low down, with only 3 library directors rating it as a 'Very significant' reason to restructure. Although, it is also the option participant were most likely to leave blank, suggesting this is potential a contentious issue that some were not willing to divulge their opinion on. Interestingly, of the three participants that ranked 'Problems with Subject Librarians' as being a 'Very significant' factor, two were currently considering a functional restructure and one had attempted a restructure that had been blocked by academic support for subject librarians.

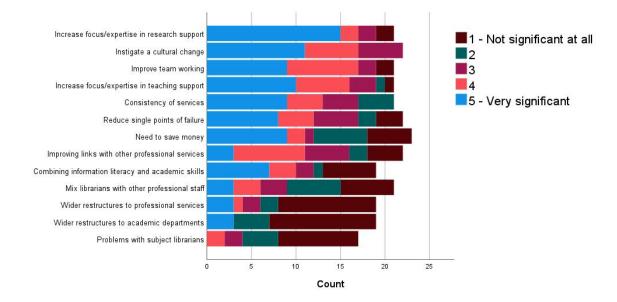


Figure 5.26: Reasons for undergoing a functional restructure

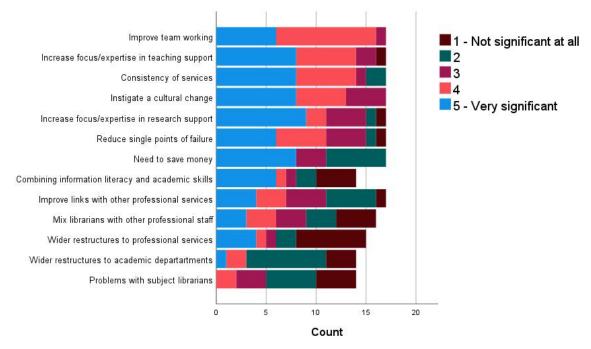


Figure 5.27: Reasons for undergoing other restructures

The main differences in the reasons provided for the restructures are that to 'Increase focus/expertise in research support' was the highest ranking reason for carrying out a functional restructure, yet for other restructures to 'Increase focus/expertise in teaching support' ranked higher. It is unsurprising that increased focus and expertise for research ranked so highly functional restructures. However, it is unexpected that six library directors whose library carried out another type of restructure ranked 'Combining information literacy with academic skills' as being a 'Very significant' reason, since the qualitative strand of the research indicated that this was often related to establishing a functional structure. However, it likely that other restructures involve retaining subject librarians, but removing some responsibilities to allow them to focus more on teaching, which, in some cases, would allow them to begin teaching academic skills or have them be structured in the same team as professionals teaching academic skills.

It could be surprising that 'Combining information literacy with academic skills' ranked so low in the reasons for functional restructures, however, as previously mentioned, not all functional restructures removed subject librarians. Therefore, the focus of some functional restructures will

have been on creating a functional research support team, and not on teaching support that would often continue to be provided via subject librarians. When the reasons for restructuring provided by those library directors who identified their structures as purely functional are examined (Figure 5.28), 'Combining information literacy and academic skills' ranked much higher, with five out of the six rating it either 4 or 5 in terms of significance, with the other library not providing an answer. One comment from the director of a library with a functional structure even stated this as their main reason for restructuring around functional teams.

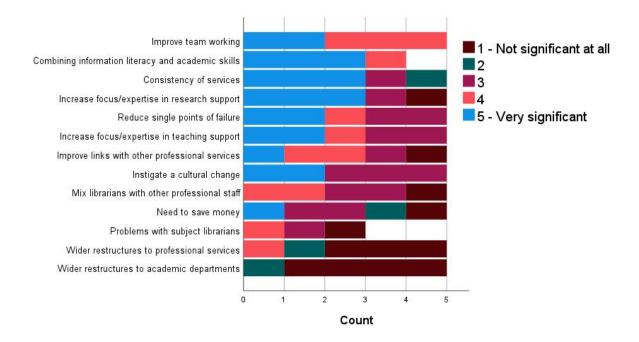


Figure 5.28: Reasons for restructures given by library directors who identify their structures as functional

In the comments, participants discussed some other drivers for restructures. Notably, one that had carried out a functional restructure and identified their structure as fully functional stated that the *"Move to new library enabled not only a move to a functional team approach, but also [to] realign workflows, functions and teams in the physical space to improve services to students and staff."* This aligns with the findings of the qualitative strand of the research that there is often a contingent factor acting as a catalyst for the decision to carry out a restructure that replaces subject librarians with functional teams. Other drivers for undertaking restructures that were discussed

included "Improve efficiency (reduce duplication of effort)", "Bring in new skills/plug skills gaps (e.g. communications, bibliometrics)" and "New institutional strategy and need for alignment." Whilst these drivers could be associated with functional structures, the participant mentioning these all still used subject librarians in their structure, again illustrating how subject structures are often being adapted to overcome challenges rather than removing the subject-element altogether.

5.9 Challenges

The participants were asked to rate how much of a challenge a range of different factors were for their library (Figure 5.29). The range of answers given for each factor suggests that there are no clear universal challenges for the academic libraries.

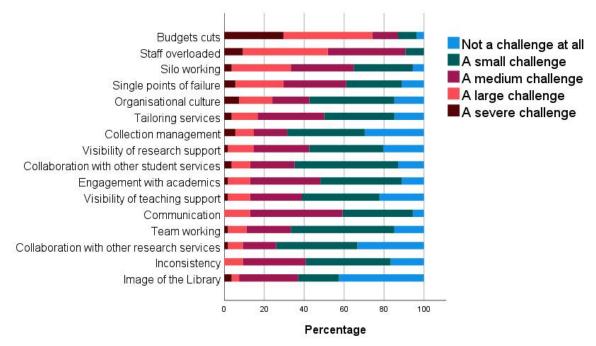


Figure 5.29: Q24 - How would you rate the following as challenges you currently face in your library? (n=54)

Overall, budget cuts appear to be the largest challenge facing many of the participating libraries, with 74% (40) rating it as either 'a severe challenge' or 'a large challenge', yet 4% (2) did

state it was 'not a challenge at all.' This is interesting since budget cuts were only occasionally discussed in the qualitative strand of the research, although this focus on budget cuts in the survey results could have been affected by the timing of the survey being towards the start of the COVID-19 pandemic when the financial impact on academic libraries was unknown. This was acknowledged in some of the comments made my participants. For example, one participant stated that, *"I have marked budget cuts as a severe challenge although at this stage these are anticipated budget cuts rather than known budget cuts. This is related to student numbers being impacted by COVID-19."* Although, there were some participants indicating that budget cuts were an issue before the pandemic. Understandably given the challenge associated with budget cuts, staff being overloaded was the next most common challenge identified by participants, with 52% (28) identifying it as either 'a severe challenge' or 'a large challenge', and no one stated it was 'not a challenge at all.' Some participants discussed *"recruitment and vacancy freezes"* due to the pandemic that were further adding to this problem. This implies that to some degree all of the participating libraries had to work within the confines of staff capacity and make decisions regarding priorities.

When the responses from participants who identified their libraries as functional (Figure 5.30) are compared to the responses of participants who identified their structures as subject (Figure 5.31), 'budget cuts' and 'staff overloaded' still rank as the main challenges for both. However, some slight differences did emerge. Firstly, 'tailoring services' and 'engagement with academics' appear to be more of a challenge in functional structures, than subject structures. This is in line with the findings of the qualitative strand of the research and makes sense since these are areas that are likely to be affected by a reduction is links with subjects. Although, it should be noted that subject structures are not guaranteed to improve engagement with academics' as 'a large challenge'. Significantly, in contrast to the qualitative findings, collection management appears to often be more of a challenge in subject structures. This could be due to overloaded subject librarians

not having the capacity for collection management, whilst a functional team would have the ability to focus their attention on such activities.

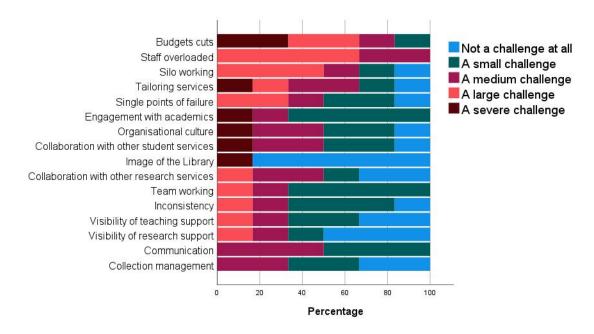


Figure 5.30: Challenge faced by libraries with functional structures (n=6)

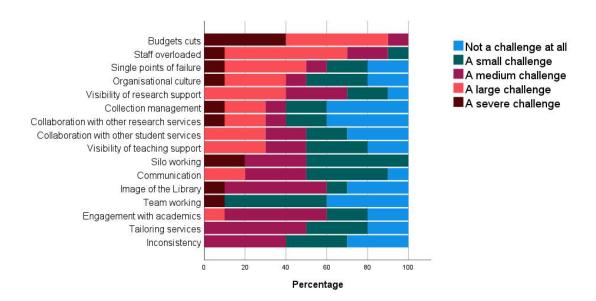


Figure 5.31: Challenges faced by libraries with subject structures (n=10)

It is also noteworthy that 83% (5 out of 6) of the participants from libraries with a functional structure identified the 'image of the library' as 'not a challenge at all'. This fits with an established driver for functional structures being to essentially rebrand the library and signal to the rest of the university it has moved beyond a traditional library. In comparison, 30% (3 out of 11) of the participants from libraries with subject structures and there were a couple of comments from participants who had retained subject librarians indicating problems with the image of the library, with one stating that one of their main challenges is *"the outdated perception of the library and what it's role is."* Although, one participant with a functional structure did rate the 'image of the library. Similarly, despite the focus on using functional structures to improve the viability of services, 33% (2 of 6) participants with functional structures rated 'visibility of teaching support' and 'visibility of research support' as a large or medium challenge.

Regarding the other challenges, it is surprising that 'inconsistency' is not perceived as more of a challenge for those with subject structures considering this is often regarded as a main challenge for this type of structure. Yet, this could be because changes have been made at these libraries to improve inconsistencies. Furthermore, it appears that functional structures are not guaranteed to improve consistency since one survey participant from a library with a functional structure rated 'Inconsistency' as 'a large challenge'. Altogether, for many of the other challenges there is little difference worth noting between the different types of structure and some challenges, such as 'silo working' and 'single points of failure'. It is clear many of the challenges can affect both types of structure, as identified in the qualitative results as well. This was also acknowledged in some of the comments made participants, such as one who stated that in a large organisation, *"Silo working is almost inevitable without constant adjustment"* and another who stated that *"Communications, in any organisation, will be identified by staff as an issue in staff surveys."*

In addition, there is clear variation in the severity of each challenge for libraries with both types of structure. This indicates there are other factors influencing these challenges, besides whether the structure is subject or functional, and adopting a particular structure will not inevitably remove a challenge. For example, one participant stated how *"The introduction of one open-plan office and the Matrix structure has almost eliminated the silo working."*

Despite 'collaboration with other student services' and 'collaboration with research services' not standing out as key challenges in the answers provided for Question 24, in the comments participants made, the relationship the library had with other professional services in the university was discussed by a few different participants. One participant described how *"Library staff still tend to operate in a bubble, quite unaware of other university departments",* while another stated how an *"inward facing, library-first culture means we don't engage with other parts of the university as effectively as we might",* with others mentioning issues with connecting with both research and student services. Notably, one participant stated:

"As more professional services' work overlaps with ours (e.g. there is a separate academic skills dept), we need to work with them and to be visible in the delivery of this - e.g. academic skills is delivered as a whole offering to students with a number of prof services adding to it - we need to have some branding here, otherwise we're not visible."

This is an interesting comment since it illustrates how as boundaries between academic libraries and other professional services becomes increasingly blurred, there is a question around the extent to which the library could become integrated with other services. This participant clearly believes there should be collaboration, but the library should remain distinct, yet, as previously discussed, in terms of academic skills, some libraries have adopted a functional structure to amalgamate information literacy and academic skills, to the point they are not distinguishable to users.

5.10 Final Comments from participants

At the end of the survey, participants were given the opportunity to provide additional comments. Firstly, they were asked about the impact of COVID-19 on their library's organisational structure and opinions regarding subject vs functional structure, and, finally, for any closing comments regarding their library's organisational structure and subject vs functional structures. From these final comments and other comments that participants made throughout the survey, the following themes emerged:

- Budget cuts and financial uncertainty following COVID-19 pandemic
- COVID-19 pandemic highlighted issues with collection management practices
- Balancing functional and subject elements
- Wider institutional context influencing choice of structure
- Importance of the library context

The potential for budget cuts and financial uncertainty following the COVID-19 pandemic emerged in many of the comments participants made throughout the survey, although, participants were divided in opinion regarding whether or not this had the potential to impact on organisational structures. Whilst some believed it would have no impact and they would be able to make saving within the current structure, others felt that if cuts to budgets were made then they would have to reassess their structures. A couple mentioned how if budget cuts were severe then, as one participant stated, *"a functional approach may be our only option for tackling the situation."* However, in comparison, another participant mentioned, *"If I could I would move to a functional structure but we don't have the capacity."* This again suggests a difference in opinion regarding whether a functional structure suits a smaller team or not. Additionally, it appears that the COVID-19 pandemic highlighted issues with collection management practices at some academic libraries due to the need to access collections online. One participant from a library with subject librarians

had noted that pressure had been placed on the subject librarians to deal with *"collection issues"* and this pressure was set to worsen if collections budgets were cut. While a participant from a library with a functional structure stated that, the pandemic *"has placed strain on collection services staff who have been involved in finding more and more electronic resources. We are putting more resources in here."* This suggests that in a functional structure it could be easier to adapt to changing priorities.

Nevertheless, and in line with the findings of the qualitative results, most of the comments either implicitly or explicitly referred to balancing subject and functional elements in their structures. As one participant stated, *"I think it's more nuanced than the binary choice either of 'subject' or 'functional'."* The need to have some form of subject alignment was often highlighted, with one participant stating how *"it is useful for academic departments to have named contacts that are familiar with their area of study".* Even some library directors who wanted to move their library to be more functional acknowledged the importance of some form of subject-alignment:

"Despite being frustrated by our attempts to reform our subject librarian system...I remain, essentially, a fan of libraries that are organised, to a degree, to reflect the subject structure of the university. They are slightly less efficient, yes, but if we move away from a subject-based structure, there is a strong danger that we will very efficiently do the wrong things. Also, most academic libraries are too large to command the support and affection of their users. To do this, the library needs to be broken down into smaller, ideally subject-based, units."

One participant even stated how "Subject is more important now to personalise the experience for everyone involved with learning, teaching and research". In addition, for some participants, it was felt that the COVID-19 pandemic and working from home had now increased the need for strong connections with subjects, with one participant stating how with the increase in online learning, "Subject knowledge and engagement with faculty and curriculum will become increasingly important

to ensure [the] library is embedded". Another participant from a library with a functional structure stated that the pandemic "has definitely changed my opinion - we operate on functional models at present but would like to look at subject based structures to improve interdepartmental relations and to encourage academic/Library engagement."

However, in comparison, the importance of having functional elements to a structure was also identified, with one participant from a library they identified as having a hybrid structure stating how "It is unlikely we will move back to a purely subject-based structure." Significantly, at this library subject-based librarians had been given functional responsibilities and the participant went on to state that "If this is not successful, we may have to adopt a different approach but the end result (based on current and predicted budget experiences) would be fewer subject librarian posts and the re-establishment of the functional posts we have lost". Many library directors also acknowledged the problems with a subject model, and they were attempting to revise the role to become more focused on engagement and teaching. One participant described how they were "supporting the team to approach academic liaison in a more strategic way...to develop a business partner approach, with librarians providing professional advice and support, proactively involved in the development of the curriculum and not simply a responsive service." There were also many examples of functional elements being incorporated into structures alongside subject librarians, with one participant stating that, while they had retained subject librarians, they had "centralised more in areas such as collection management, engagement and research support." Although, in order to fund these new functional roles a reduction in subject librarians had sometimes occurred. Notably, one participant suggested that given enough funds they would grow both the functional and subject elements of their structures, stating that, "Funding has meant we've had to really cut back on activities that we know students would benefit from. I would love to have more subject librarians (covering fewer subjects each) and more research and teaching and learning support."

Throughout the comments, there were clear examples of the wider institutional context influencing choice of structure. As one participant stated *"Library structures, especially in the area of library support need to reflect the local structure of the institution and its culture."* Firstly, how subject librarians are viewed by the wider institution was an important factor, with some indicating that they were well regarded within the university, which was clearly influencing decisions to retain the role. As one participant stated, *"we've always been able to argue that the subject librarian role is key in supporting academic activity and that losing this role would put additional pressure on academic staff."* There were also examples provided at two separate libraries where changes to structures had been blocked by academic staff who were attached to the subject librarian model, influencing the decision of the library directors to approach change more incrementally.

In addition, it was evident that the boundaries between the library and other professional services with the institution were having an impact on library structures, with one participant stating how *"Institutional politics plays a large part in the positioning of the academic service-focused roles."* For example, one participant mentioned how if superconvergence occurred in their institution, then they would have to reassess their structure, but there were many others discussing less official connections with other student services they were navigating. Connections with research services were also mentioned, although not as frequently, and as one participant stated:

"Combining the Library with Learning and Teaching services is relatively tried and tested, combining also with Research and Enterprise functions is less common and as a concept has huge potential to generate revenue, consistent and high quality provision of services, and to provide ownership of many processes that would otherwise be fragmented across separate directorates."

Therefore, as boundaries between other professional services become blurred, the level of collaboration between the library and other support services can differ between institutions, which could be influenced by *"institutional politics"* and *"political positioning"*. As one participant alluded

to, as the library expands the areas of support they are involved in, a functional structure may become more appropriate:

"I think the institutional culture and context is important, ours is a University with rapidly growing research activity but from a small base with very few research only staff. As a result the subject librarian role still works. If we continue to develop specialised research roles for academics then that argument may not be so strong"

Additionally, this blurring of boundaries was also likely influencing the desire some library directors were expressing to bring in other professional staff to work in libraries, with one participant who was considering a functional restructure stating that, *"I am convinced that I need multidisciplinary teams to provide the best level of support to users."*

Finally, similar to the findings in the case studies, the importance of the library context was inherent in many of the comment from participants. For example, one alluded to the importance of the staff within the structure by stating the *"...it has been important that people have been willing to be adaptable and flexible"*. Another regarded the size of the staffing as a limitation believing that *"The main issue with our structure is the tiny size of the team which limits our ability to be creative"*. However, the main contextual factor that emerged was the differences in the opinions of library directors themselves that were evident in the comments being made, which will inevitably be influencing the choices being made. Whilst most would appear to agree that structures require a balance of both subject and functional elements, some are more committed to maintaining subject librarians in some form, whereas others more in favour of functional structures. For example, one stated how *"I still believe that subject librarians is a really outdated model"*. The opinions of these library leaders were not only affecting choice of structure, but also the approach taken, with some less prepared to risk a radically restructuring exercise, particularly following the disruption of the COVID-pandemic:

"I don't want to introduce another stressor and disruption to the team during an already very difficult time and...the simplest case to make to the wider institution, especially the Finance department, is to maintain what we have as the current structure is tried and tested and is understood to work well."

5.11 Conclusion

This chapter has presented the findings of the library directors survey that formed the second phase of the exploratory, sequential mixed methods design of this research, and which was developed from the findings of the multiple comparative case study that were presented in Chapter 4. These findings have highlighted some key trends in academic libraries in the UK around the use of subject and functional structures, the qualifications of professional staff, their changing and diverging roles and responsibilities and the use of restructures, as well as highlighting some key differences in the opinions of library directors. Further qualitative data from the open-ended questions that add further depth to understanding are also presented. Some key similarities and differences between the findings of this stage of the research and the preceding qualitative strand of the research were discussed, but this will be explored further in Chapter 6 where the results of the integration stage of the research are presented, before these overall results are interpreted in the discussion section.

6. Integration and Discussion

6.1 Introduction

In order to complete the integration stage of the exploratory, sequential mixed methods research and combine the findings from the multiple comparative case study (Chapter 4) with the findings from the library directors' survey (Chapter 5), a table was created whereby key results from both the qualitative and quantitative strands were aligned to the research questions to allow for comparison. This table is presented in Section 6.2. Along with the key results from each stage, this table also identifies areas of agreement and discrepancy between the both sets of results. This is followed by the interpretation and discussion of these integrated findings in relation to the literature in Section 6.3.1.

6.2 Integration of qualitative and quantitative findings

1. To explore trends in the use of functional and subject teams and the approach to changing								
organisational structures in academic libraries in the UK								
Themes	Multiple Case Study	Survey – Quantitative	Survey – Qualitative	Complementary	Conflicting or			
		findings	findings	results	expanding results			
Combining subject and functional	 "supposedly we have no subject function whatsoever, but it's very difficult to get away from" "I can't see how the [research support] roles that I'm involved with would work anyway but functional" "we moved towards what you would probably think of as a more functional structure but within both of those teamsfor liaison, business relationship purposes with the university, we retained subject roles, which are at a very high level." "I don't think even the term functional is interpreted in one way" "there's an extent to which neither of them is perfect" "you need to maintain a veneer or a layer of subjectin order to manage that relationship with your 	 70% identified their structures as 'hybrid' 98% have at least one functional team providing an academic services role 96% have a functional research team - 67% of these are not aligned to subjects 48% have a functional academic skills team (of these, 42% not aligned to subjects) 83% 'Consistently providing' a named contact 	 <i>"I think it's more nuanced than the binary choice either of 'subject' or 'functional'"</i> <i>"centralised more in areas such as collection management, engagement and research support."</i> <i>"We implemented a functional approach with no subject linksbut have undone that over the last twelve months."</i> <i>"It is unlikely we will move back to a purely subject-based structure."</i> 	 Vast majority of libraries combining functional and subject elements to varying degrees Resulting in many variations in structures and variety of new roles Research support most likely to be functional Subject element sometimes reduced to grow functional areas 	 One survey participant identified that they had no functional teams Some survey participants identified their structures as being fully 'Subject' or fully 'Subject' or fully 'Functional' despite indicating they had elements of both approaches Example in the survey of a library establishing a functional structure and then bringing subject elements back in 			

Not traditional subject librarians	 customer, which is what we do with this hybrid model we've got." "the traditional role of a Subject Librarian doesn't exist anymore" "the adoption of [reading list management system], massively changed the way in which the Library operateswhich took away some of the things that were traditionally the [Subject Librarian's]" "most people in those roles don't have qualifications or background in those subjects" "We're not old-school subject. So, like old-school subject would be one librarian looking after Music and that would be it." "I know it's not a functional role but we have a very focused role" "we've stripped back a bit on what [subject librarians] are expected to do" 	 89% of libraries have a subject librarian type role 59% collections budgets managed centrally Collections described as a 'back- office' role in 50% of libraries with subject structures Some libraries with subject structures indicating that team working, single points of failure and inconsistency are 'Not a challenge at all' 	 to a faculty, they are not traditional 'subject' librarians." "changing the role from the very traditional original JD to something intended to be more strategic" "recently been reviewed with the aim to create a more strategic, Faculty-focused role". 	 Perception structures can be too functional Subject Librarian roles have often been reviewed and revised to improve challenges Role often narrowed to focus on teaching and engagement Reduced involvement in collections Little need for in- depth subject knowledge 	 11% of libraries from the survey were 'Consistently providing' staff with a degree or background in the subjects they support, and 7% rated this as 'Very important'
	tify the factors influencing che eloping role of academic libr	0 0	0		5
Themes	Multiple Case Study	Survey – Quantitative findings	Survey – Qualitative findings	Complementary results	Conflicting or expanding results
Wider university context	 "What makes a good library is that it's doing what its parent institution needs from it really" 	• 94% identify some form of centralisation in the	• "Library structuresneed to reflect the local structure of the	 Academic libraries and their structures need to align with the 	 Survey did not support the suggestion from case studies that

	 "libraries are part of their parent institution, and that is a realisation because I think historically we've always felt that sometimes we're somehow separate" "I think you've got to read the situation, respond to that, so, I think the local context is important." "I think the biggest change in HE is that customer mentality" "we've deliberately set this up so that we are supporting the university strategy" "the positive feedback that we get on our Subject Librarians in particularI think that's a really good reason to not scrap Subject Librarians." "We have a number of academics out there in some of the Schools that are very well disposed to the Library and that's because of the fact that they've had a relationship built with [their subject librarian] over the years" 	governance of their university	 institution and its culture" "ours is a University with rapidly growing research activity but from a small base with very few research only staff. As a result the subject librarian role still works" "We undertook an abortive restructuringthe Subject Librarians were able to mobilise massive support and sympathy from their departments" "There is a noted lack of support for Faculty Librarian posts" 	needs of their parent institution • Subject Librarians often well regarded by academics but unlikely for new posts to be funded	 libraries structured with student services or centralised governance promote functional structures Examples in survey of restructures getting blocked because of support from academic departments for subject librarians
Changing role of academic libraries and jurisdictional boundaries	 "it's the library as a service, I think, that's starting to become more prominent, rather than just the library as a collection" "library services have, probably, a core set of activities around collectionsand operating buildings. After thatthere are lots of other 	 98% of libraries in a service-focused directorate 67% of libraries with functional structures are leading on academic skills and 33% are leading on 	 "Institutional politics plays a large part in the positioning of the academic service- focused roles." "the functional roles are not necessarily 	 Emphasis on libraries providing services, not just collections and space 	 Drivers to change structures that related to mixing professionals and combining information literacy and academic skills not just ranked as

	 services that could be movable between different parts of the University." "You don't want to be stepping on people's toes either or doing something that's actually done somewhere else." "I know we've got a number of universities where actually these student support services and the Library are in the same organisational unitbecause it is quite clear there are times where their work overlaps and is complementary" "at other institutions with a much stronger Research Office it's been a lot harder to establish the library [research support team]" 	 VLE and maths support. No libraries with subject structures are leading on these activities. On average, those with a functional structure were leading on more areas than those with subject structures. 	traditional library roles" "Combining the Library with Learning and Teaching services is relatively tried and tested, combining also with Research and Enterprise functions is less common and as a concept has huge potential"	 Variation in the responsibilities and services of academic libraries The more additional areas a library is involved in, the more functional the structure is likely to be, particularly if libraries become involved in other student areas (e.g. academic skills) 	significant by those that carried out a functional restructure • Rather than focusing on research support, survey results indicate the importance of teaching support services to library directors and suggest they want to develop these services further.
Resourcing (budget and staffing) and current structures	 "this is not what we would have if we had a blank piece of paper" "in the challenging climate where if I went into the Registrar and say I need 15 extra staff, you know, that's unlikely to be resourced. Sooptimising the staffing you currently have" "It was probably an easier step for us to make than a lot of other ones because we had Faculty specific liaison, not subject-specific liaisonI can imagine that being much more problematic in other institutions 	 74% rated budget cuts as 'a severe challenge' or 'a large challenge' 18 participants rated the need to save money as a 'Very significant' factor in the decision to restructure, 5 rated it as 'Not significant at all' 3 library directors ranked 'Problems 	 "We are a very lean team - I only wish that we did have some of those roles!" "If I could I would move to a functional structure but we don't have the capacity." "rapidly decreasing number of staff" "The main issue with our structure is the tiny size of the team 	 Perception that you need a large team to create a functional structure in order to avoid single points of failure Libraries unlikely to get more funding for staff, particularly for subject librarians, so working within the confines of 	 Budget cuts emerged in survey as more important than it appeared to be in the qualitative strand of the research

Leadership	 where they do have those very strong School or discipline-based Library roles and those very historic connections." "maybe if those people hadn't been as an inflexible in their approach, they may not have taken that approach" "If I wanted to protect the library I'd 	 with subject Librarians' as a 'Very significant' factor in their decisions to restructure 60% of participants 	 which limits our ability to be creative" "I would very much like the librarians to be building collections but we haven't had that luxury for some years." "I still believe that 	current staff numbers • Differences in	Some survey
	 make sure the structure and teams are as ball and wool like and tangled as possible" "having started out as a subject librarian I doI have quite a lot of sympathy with subject librarians, I think it's fair to say." "if you've got academic advocating for either your subject librarian or your librarythen that becomes quite a powerful thing, and so if you wanted to avoid risk, that embeddedness and integration with that academic side of the organisation might be a more comfortable place than the corporate side of the organisation" "I don't see that you would gain that much and you might risk losing more than you think." 	rated 'Named contacts' as being 'Very important', but 7% rated it as 'Not important at all' and had functional structures • 7% of participants rated 'Staff with a degree/background in subjects as being 'Very important', but 28% rated it as 'Not important at all' 26% of participants rated 'Tailored research support' as being 'Very important', but 7% rated it as 'Not important at all'	subject librarians is a really outdated model" "I don't want to introduce another stressor and disruption to the team during an already very difficult time andthe simplest case to make to the wider institution, especially the Finance department, is to maintain what we have as the current structure is tried and tested and is understood to work well."	 opinions of library leaders regarding importance of some services Importance of how subject librarians are perceived by library leadership Some leaders not wanting to risk exposing the library by creating a functional structure Some leaders rejecting functional restructures due to believing staff 	participants were rejecting restructures in order to avoid creating a stressful environment for staff

Other contingent factors	• "I think sometimes there's never one change going on, there are several, of which doing things like moving to a functional model and changing how the library operates, is just one small piece."		• "Move to new library enabled not only a move to a functional team approach, but also [to] realign workflows, functions and teams in the physical space to improve services to students and staff	 enjoyed subject- based roles Many of the drivers for changing structures are same for most libraries irrespective of type of structure they create 	
functi	sess the attitudes of library s ional structures on the librar tural choices		, ,	•	
Themes	Multiple Case Study	Survey – Quantitative findings	Survey – Qualitative findings	Complementary results	Conflicting or expanding results
Empowerment and ownership of roles vs named contacts and relationship with academics	 "the individual relationships that the staff build up are extremely valuable and having that named contact and building up that relationship" "We do feel that there's a bit of a gap in how we engage with academics on the ground" "One element of that is, is trying to get staff at all levels to be dealing with customersbecause that then makes them accountable and have ownershiprather than acting as intermediary." 	 83% of libraries were 'Consistently providing' a named contact and 7% of libraries were not providing named contacts at all 1 out of 6 library with a functional structure rated 'Engagement with academics' as 'A severe challenge' and 2 out of 10 	 "We expect all colleagues in the library to engage with academic and students to some degree. We have no back office roles." "All staff are involved in engagement to some degree" "we operate on functional models at present but would like to look at subject 	 Subject librarians often associated with strong connections with academics Some libraries moving away from single point of contact for academics towards increasing ownership of roles by allowing 	• Subject structures not guaranteed to improve engagement with academics – 1 survey participant with a subject structure rated 'Engagement with academics' as 'A large challenge'

	 "They can go as the expert and talk to all the people they need to talk to" "Subject Librarians used to be quite powerful forcesWere they too powerful for the senior management teams, who knew they'd got to make a lot of changes and they knew this would be the main block?" 	libraries with subject structures rated it as 'Not a challenge at all'	 based structuresto encourage academic/Library engagement." "it is useful for academic departments to have named contacts that are familiar with their area of study" 	functional areas to do their own engagement.	
Consistency and efficiency vs tailoring of services & Focus and specialisation vs integration of services	 "I don't think you can deliver those personalised experiences if you don't understand the departments that you're working with" "you're empowering people to do something end-to-end, which means they can do it better and faster" "instead of trying to be on top of everything you're concentrating on one particular aspect now" "you're able to promote all the services together, as a cohesive whole" "the functional approach allows us to be very efficientbut we probably lack the capacity and the breadth that the subject roles gave usto be a bit morethinking outside the box or coming up with solutions which suited the academic need better" "we'd gone a little bit too down a, kind of, businessy route and a professional route and a functional 	 17% of libraries with functional structures 'Consistently providing' tailored teaching sessions, compared to 80% of those with subject structures No libraries with functional structures 'Consistently providing' tailored research support, compared to 50% of libraries with subject structures No libraries with a subject structure rated 'Inconsistency' as 'A severe challenge' or 'A large challenge' 	 <i>"I remain, essentially, a fan of libraries that are organised, to a degree, to reflect the subject structure of the university. They are slightly less efficient, yes, but if we move away from a subject-based structure, there is a strong danger that we will very efficiently do the wrong things."</i> <i>"the attention each subject is more important now to personalise the experience for everyone involved with learning,</i> 	 Tailoring services more of a challenge in a functional structure Functional structures more perceived to be more efficient Some libraries maintaining subject approach in order to tailor services, but making changes to improve efficiency, consistency, and focus 	 Functional structures not guaranteed to improve consistency – 1 survey participant with a functional structure rated 'Inconsistency' as 'A large challenge'

Image of the Library	 route, and it was working really, really good for the building and day-to-day practice, but it kind of lost its academic soul a little bit" "a drive towards efficiency inevitably makes you very processoriented and if you're very processoriented, then you potentially can move to a point where you say, you're not adding value, you're just carrying out a process" "projecting that image that we're there to enhance your learning or enhance your research skills or act as an engagement partnerrather than it's justthe Librarian for your subject who will help you to find the resources in your subject" "there is something inherently 'proper librarian' about [subject librarians] and if you didn't have that level what does a Library mean?" "that restructure has created the capacity to make changes to the remit of both of those teams, and they've already started picking up a lot more than they used to do" 	 83% of participants with functional structures rated the image of the library as 'not a challenge at all', compared to 30% of participants with subject structures 33% of participants with functional structures rated the visibility of teaching support and the visibility of research support as a large or medium challenge 52% rated staff 	 teaching and research" "the outdated perception of the library and what it's role is" "Silo working is 	 Functional structures sometimes used to attempt to improve the library to the rest of the university and emphasise a focus on research and teaching support Silo working, 	 1 participant with a functional structure rated the 'Image of the library' as 'a severe challenge' In the survey, some participants with functional structures still perceived the viability of both teaching and research support services to be a challenge The survey showed
challenges	 •if you break down one set of shos then all you're doing is replacing them with another one" • "[subject librarians are] really focused on teaching and research. 	being overloaded as 'a severe challenge' or 'a large challenge'	almost inevitable without constant adjustment"	staff overloaded and single points of failure can be challenges	little difference in many of the challenges faced by libraries

Library context	 Sometimes the bit that gets squeezed is collection development" "the area that's less clear, I think, is kind of like collections andhow, so no one really is responsible for knowing about the depth of collections anymore" "We've just changed emphasisit's only ever going to have a limited effect unless you increase the size of library services, which nobody's going to do." "you can spend a lot of time and effort tinkering with that, but actually if you don't have the people's attitude and you don't create the right atmosphere, then actually the structural changes don't make much difference." "people who work in traditional structures are achieving fantastic thingsYou know, I think part of it's down to leadership, and what they expect and what you're empowered to do and what you're empowered to 	 33% rated silo working as 'a severe challenge' or 'a large challenge' 30% of libraries with a subject structure rated 'Collection management' and 'A severe challenge' or 'A large challenge' 	 "strain on collection services staff who have been involved in finding more and more electronic resources" "it has been important that people have been willing to be adaptable and flexible" 	 Importance of other factors influencing if the structures are successful or not (e.g. people in the structure, leadership, culture etc.) 	irrespective of structure • The survey indicated collection management can also be an challenge in subject structures				
4. To explo	4. To explore the impact of specialisation and the increasing use of functional teams/roles on librarians								
•	connection to changes occu		0						
Themes	Multiple Case Study	Survey – Quantitative findings	Survey – Qualitative findings	Complementary results	Conflicting or expanding results				

Themes	Multiple Case Study	Survey – Quantitative	Survey – Qualitative	Complementary	Conflicting or
		findings	findings	results	expanding results
Other	• "is really good to actually get	 87% of libraries had 	• "diversify the skills	 Majority perceive 	• 13% of libraries in
professionals	people in that are from a non-library	other professionals	in the Library"	that there is a	the survey only had

working in the library	background to challenge our thinking""I wouldn't want a team of complete librarians"	working in academic services roles within the library	• "I am convinced that I need multidisciplinary teams to provide the best level of support to users."	need to bring other professionals into the library to fill skills gaps	staff with library qualifications working in academic services roles
Boundaries between different professionals	 <i>"I think it's an on-going process of negotiation to be honest. I think we are still learning to figure out how we can work well togetherI think we're still learning to understand each other's roles and what we do and the differences between it."</i> <i>"Subject Librarians, that's going to be a harder nut to crack for somebody who's not a librarian obviously"</i> <i>"Where it's slightly more problematic, I think, is that we are a different profession. We have a very different idea of what we do"</i> <i>"we obviously understand where [the boundary] is most of the time, but the academics don't, they just see us as one thing"</i> <i>"I feel that close synergy with staff in other parts of the University, and sometimes actually it's closer with them than maybe some of the other areas with the Library"</i> 	 67% (4 of 6) of libraries that were identified as having functional structures had at least one team where librarians were mixed with other professional in the same roles, compared to 35% (17 of 48) of the rest of the participating libraries and 10% (1 of 10) of libraries that were identified as having subject structures 8% of Subject Librarian teams contained other professionals, compared to 50% of functional teams 	 "we have the [academic skills team]. This is staffed by learning development specialists" 	Structures using subject-based roles more likely to maintain distinction between different professionals	• Four libraries from the survey had subject librarians structured into teams with other professional staff who had the same job title as the librarians (no examples of this at the case studies)
Qualifications and skillset	• "the functional roles are probably more likely to get someone who isn't a Librarian."	 64% of functional teams/roles teaching library skills, 57% of 	 "There is an increasing move to relevant knowledge/skills/expe 	 People in functional roles with 'traditional' library 	

	 "a lot of what we do doesn't have to be done by a librarian." "a different mindset, and potentiallya different set of skills" "we get to do loads of different things. So, you feel that you're kind of developing your professional skillset, and I think that would be kind of a worry if you were just doing one thing" "I do not have an information literacy degree or a librarianship degree or a librarianship qualification, but I am delivering information literacy sessions to students it kind of devalues the expertise and the qualifications." "sometime I think actually in my career to get ahead would different qualification not bemore beneficial." "I think there is a bit of a crisis of confidencein terms of traditional library skills." 	collections teams/roles, 48% of research support teams/roles, 37% of academic skills teams/roles and 33% of marketing teams/roles only contained staff with library qualifications	rience as an alternative" "it does not matter to me whether someone has the piece of paper, only what they can deliver. I see a need to diversify the skills we have in the Library" "any job title that incorporates librarian in the title must have a recognised qualification" "More importantly, all Subject Librarians are expected to have a teaching qualification"	responsibilities (e.g. collection management and teaching library skills/information literacy) more likely to have library qualification • Increasing need for teaching qualifications	
Impact on librarians	 "I didn't like the idea thatI couldn't do all three things anymore." "We're getting sent up a little culde-sac" "I would go so far as to as to say I actually do not feel like a Librarian at all" "I do worry about going for other jobs." 		 "staff having the opportunity to explore different experiences, create expertise in areas but retain a working knowledge of other areas, job satisfaction, fulfilment" 	 Concerns about job satisfaction, professional identity and career progression for librarians in functional structures 	

•	"when we've advertised [for new		
	staff], you'll get people going: 'What		
	is that?' 'I don't know what that is!'"		

6.3 Discussion

6.3.1 Trends in the use of functional and subject teams

6.3.1.1 Combining subject and functional structures

It is discussed in the literature that in order to survive organisations need to continuously adapt to the rapidly changing and complex environments they all operate in (Hayes, J., 2014; Jantz, 2012b; Tolbert & Hall, 2016). Consequently, it is clear from the findings of this research that in accordance with this, the organisational structures of academic libraries in the UK are changing and adapting. This is resulting in changes being made regarding the way the academic services element of a library is structured, with this research supporting the conclusions of Hoodless & Pinfield (2018) in that academic libraries are now creating organisational structures that combine both subject and functional elements to varying extents to provide academic services.

At the time of their research, Corrall (2014) identified that academic libraries had generally settled on mixed structures, whereby technical and front-of-house services are structured functionally and academic services are structured around subjects, however this has now become an oversimplification. Whilst this research has established that the majority of academic services structures still have a strong subject element in the form of subject-based librarians, it is clear that they are becoming more functional in response to the drivers identified by Hoodless and Pinfield (2018). What Corrall (2014) identified as an emerging trend of using functional specialists to support subject-based librarians is now the dominant model existing in the UK. For the majority of academic libraries, the academic services component of their structures is becoming a mixed, or hybrid, structure in itself that formally combines both subject and functional elements. Even where

individuals do not identify their structures as hybrid, it is clear that this combination of subject and functional usually does exist, with very few of the libraries involved in this research being recognisable as exclusively subject or exclusively functional in the way they structure their academic services.

When Woodhead and Martin (1982) conducted their survey into the use of subject specialists in UK university libraries, as well as functional and subject structures, they identified the following three classifications for how libraries can be structured to combine subject and functional elements:

- Dual where some librarians have subject-based roles and others have functional roles
- Hybrid where librarians have both subject and functional responsibilities
- Three-tier where senior librarians have subject responsibility and functional responsibilities are provided by middle grade members of staff and supported by clerical staff (p. 98)

This research has shown that of these three categories it is the Dual structure that now dominates; with most structures now having functional roles and teams in addition to subject-based librarians. Hybrid structures, which can also be described as matrix structures, appear to be occasionally used to structure subject and functional responsibilities, but it is not the dominant model, instead being more often used when libraries have multiple sites to manage. Significantly, even where matrix structures are used to assign subject and functional responsibilities, additional exclusively functional roles usually also exist. In terms of the three-tier structure, this is also rare. Whilst there may be some functional roles that are on lower paygrades to subject-based, many functional roles are being created at the same level within the structure as subject-based librarians, signalling the importance of these roles. However, it should be noted, the results of this research have established that, despite the dominance of Dual structures, academic library structures are becoming a lot more complex and often do not neatly fall into one of these three categories. As

discussed above, structures can contain elements of more than one of Woodhead and Martin's categories. Therefore, for this research, when referring to hybrid structure this encompasses any structure that formally combines subject and functional elements, and incorporates all three of Woodhead and Martin's (1982) categories.

Nevertheless, in terms of functional roles that are being created alongside subject-based roles, Figure 6.1 illustrates some of the ways these are being incorporated into academic libraries structures and how structures can now exist along what Hoodless and Pinfield (2018) identified was a spectrum from subject to functional. In a purely subject-based structure, the traditional subject librarian role, as depicted in Diagram A, encompasses the full range of academic services the library offered. This includes collections, teaching and learning support, research support, and marketing and data, with a holistic engagement role overlaying all these other responsibilities. As previously mentioned, technical, back-office collections roles were the first to move out the domain of subject-librarians into a functional team, as depicted in Diagram B, with subject librarians retaining responsibility for engagement with faculty regarding collections. In many ways, this was to enable subject librarians to focus more on direct support for users. Significantly, many would still class this as a subject-based structure and it would be categorised as such using Woodhead and Martin's (1982) categories where subject teams can be supported by a central team providing some functions.

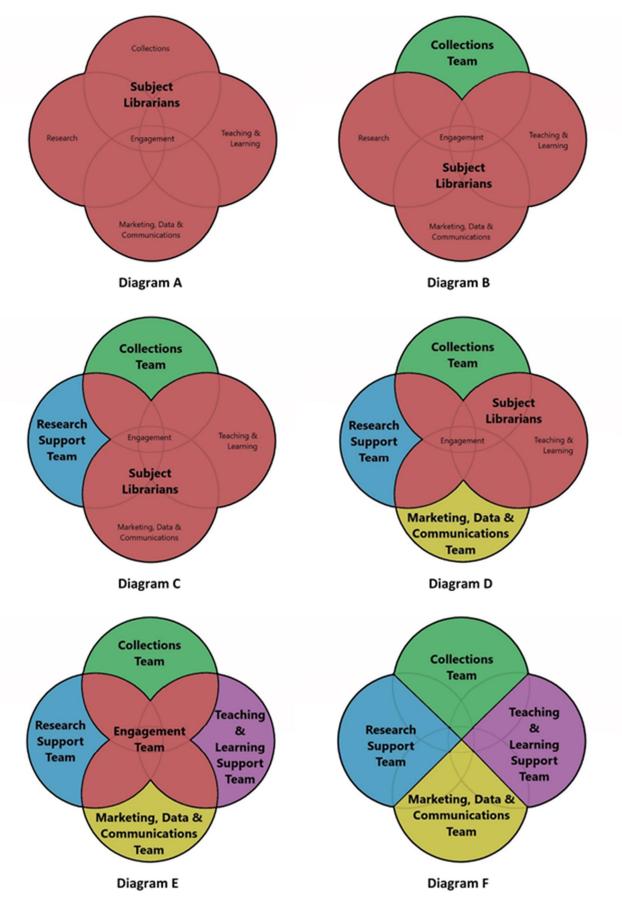


Figure 6.1: Combinations of subject and functional elements to structures

Now, with the growth in research support services across the sector, it appears to be generally accepted that these extra, complex responsibilities cannot be completely subsumed into the subject librarian remit, and new functional research support roles are required to support the subject-based librarians, as illustrated in Diagram C. The results of this research show that separate functional research support roles now appear to be an almost universal component of academic library structures. This is similar to the way that functional teams focusing on technical/back-office collections responsibilities, such as acquisitions and cataloguing, were identified by Corrall (2014) as prevalent in the sector. Interestingly, even at this stage some might still class their structures as subject-based librarians maintaining responsibility for engagement activities, or if these new functional research roles have a strong engagement focus as well, which they appear to increasingly have.

Nevertheless, a structure combining subject-librarians with a functional administrative collections team/roles and some form of functional research support (Diagram C in Figure 6.1) now appears to be the baseline for academic library structures when combining subject and functional components. This accounts for the prevalence in the literature of examples of academic libraries establishing functional research support roles and teams. In many ways, this mirrors the trend towards the separation of research and teaching observed throughout higher education sector identified by the likes of Brown and Carasso (2013). Significantly, in the majority of cases it was found that these functional research support teams/roles are not subject aligned. This is perhaps due to the fact that they often exist in addition to subject-based librarians who, as explained by S. Brown et al. (2018), can provide an understanding of the research support requirements of different subjects to complement the research expertise in the functional roles.

In many ways, this growth across the sector regarding functional research support roles and teams in academic library structures appears to be illustrative of DiMaggio and Powell's (1983) institutional isomorphism at work, with academic libraries emulating each other by establishing similar roles and teams in their structures. However, there are many examples from this research of additional functional elements being incorporated into academic library structures, demonstrating the spectrum of structures between subject and functional identified by Hoodless & Pinfield (2018). For example, as further illustrated in Figure 6.1, some have also decided to create separate functional marketing and/or data roles, as depicted in Diagram D. A trend that is clearly influenced by the impact of the marketisation of higher education on academic libraries. This adds a further functional element, pushing the organisational structure further towards the functional end of the spectrum. A step further than this appears to be the removal of subject-librarians, which although still rare in the sector, this research has shown that there has been a growth in such structures since Corrall (2014) identified the UML's functional structure as unique in the UK. The decision to remove subject librarians appears to be related to the expansion of a library's teaching and learning support remit beyond information literacy education, which will be discussed in Section 06.3.2. Although, it is not inevitable that this will lead to the removal of subject librarians and throughout Section 6.3.2 many of the contextual factors influencing the decision will be explored as well.

Nevertheless, significantly, even where a library has a functional structure some form of subject alignment often still exists. This could be in the form of a subject-aligned engagement team, similar to the model developed during the restructure at the University of Manchester, and illustrated in Diagram E in Figure 6.1. Alternatively, structures may not have such a team, with each functional team responsible for their own engagement, as depicted in Diagram F. Nevertheless, even in cases such as this, it is rare for no subject-alignment to exist, with at least some of the functional teams often either formally or informally aligned to subjects, with teaching and learning teams being more likely than research support teams to have some form of subject alignment. Significantly, it was identified in this research that when academic libraries had removed all subject-alignment from

their structures, this was often regretted and steps were being made to re-establish a subject element. This was particularly evident in the comments made by participants in the survey with the experiences of working through the COVID pandemic appearing to reinforce the need for some form of subject alignment in a structure.

However, in reality, the diagrams in Figure 6.1, whilst illustrating different options for how subject and functional elements can be combined to provide academic services, are an oversimplification of the subject-functional spectrum. Essentially, whilst it can be seen that academic libraries are emulating each other's structures along the lines of DiMaggio and Powell's (1983) institutional isomorphism with regard to combining subject and functional elements to provide academic services, their structures are paradoxically diverging in how this is actualised. Beyond the baseline structure of supporting subject-based librarians with functional research support roles, there appears to be a multitude of possibilities for how library responsibilities can be compartmentalised and how subject and functional elements can be combined, with the organisational structures of academic services becoming a lot more complicated and diversifying as a variety of new roles emerge.

Figure 6.2 to Figure 6.7, which roughly depict the organisational structures of the case study libraries from this research, illustrates this growing divergence and complexity of how academic services are being structured. Altogether, what has been observed in the results of this research is the divergence of academic library structures as predicted by the likes of Lankes (2014), Gremmels (2013), Schonfeld (2016) and Dempsey and Malpas (2018). Significantly, this could be seen as unexpected since it has been argued by the likes of Jantz (2017) that academic libraries resemble each other in terms of structure due the mechanism identified by DiMaggio and Powell's (1983) that promote institutional isomorphism. In addition, it is suggested by DiMaggio and Powell (1983) that these isomorphic pressures are especially strong during times of environmental uncertainty, which as Jantz (2012b) also argues is the position academic libraries currently find themselves in.

Therefore, this indicates a potential reduction in, although not a complete removal of, the influence of the three isomorphic forces identified by DiMaggio and Powell (1983). This will be explored further in the subsequent sections of this discussion, particularly sections 6.3.2 and 6.3.3.

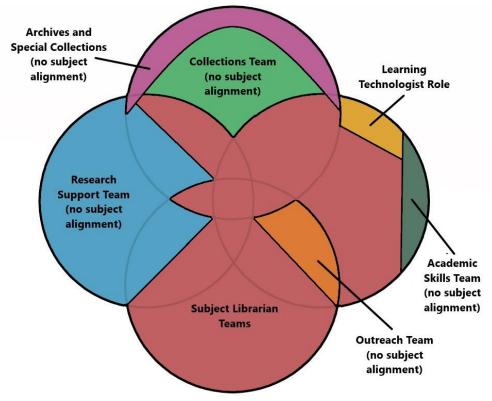


Figure 6.2: Subject and functional elements of Case Study A

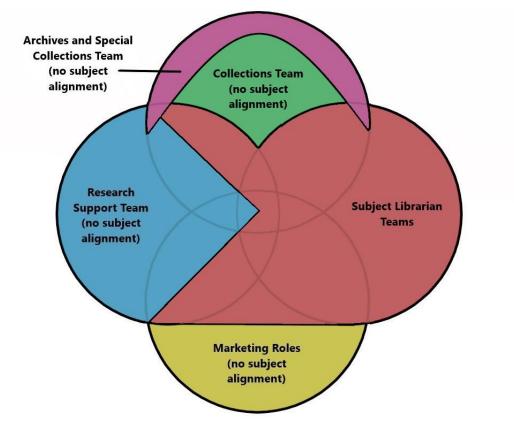


Figure 6.3: Subject and functional elements of Case Study B

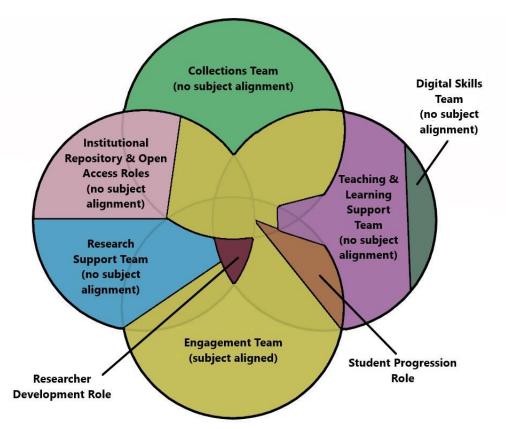


Figure 6.4: Subject and functional elements of Case Study C

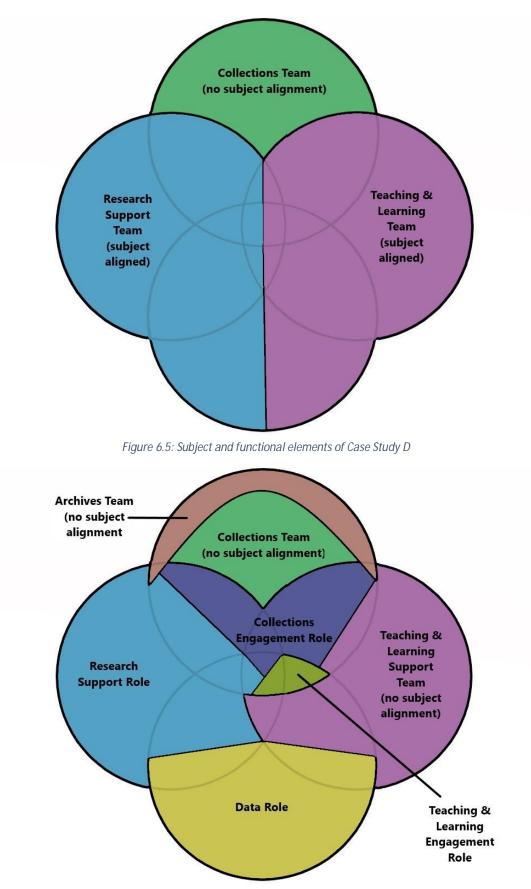


Figure 6.6: Subject and functional elements of Case Study E

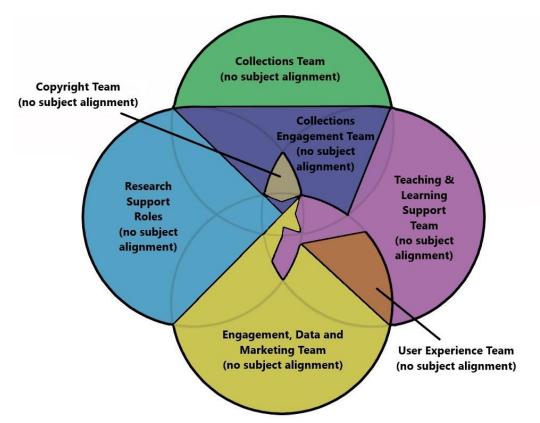


Figure 6.7: Subject and functional elements of Case Study F

6.3.1.2 Changes to subject-based roles

In addition to demonstrating the diversity of academic library structures and roles, significantly, Figure 6.2 to Figure 6.7 also illustrate that even where subject-based librarians have been retained the growth of functional roles is reducing their prominence in the delivery of the academic services provided by the library. Figure 6.8 illustrates the roles and responsibilities with regards to academic services that the traditional subject librarian role encompassed, which included responsibilities around collections, teaching and learning, research support and marketing, data and communications for the library. Each of these spheres of activity is represented by a circle in the diagram, all of which intersect since there are clear areas of crossover where some responsibilities do not fall neatly into one category. In addition, technical and administrative tasks would sit at the periphery of the circles with activities becoming more engagement focused and strategic towards the centre of the diagram. Therefore, altogether, there was a holistic nature to the traditional

subject librarian role that allowed for the integration of all these responsibilities and the related engagement activities.



Figure 6.8: Academic services roles and responsibilities

However, the possible roles and responsibilities that can fall within these spheres of activity are now expanding and diversifying, which will be explored further in Section 6.3.2.2. Figure 6.8 also illustrates just some of the responsibilities related to academic services that can now reside within the domain of an academic library that have emerged from both this research and the literature. Due to this growth in services, it is widely accepted that the subject librarian role can often no longer carry out all of the responsibilities within these four spheres of activity (Hoodless & Pinfield, 2018; Rodwell & Fairbairn, 2008). As Child (1972) identifies, as an organisation's activities become more complex and diverse, the need for specialised functional roles to deal with the expansion of knowledge and environmental understanding increases.

As previously discussed, some collection management activities were the first to be removed from the remit of subject librarians in order to grow other services, however, as Corrall (2014) identified, it was the clerical, administrative and technical responsibilities that were removed, and engagement around collections remained the responsibility of subject librarians. It is clear that some of the new functional roles can also be predominantly technical or clerical in nature, particularly some new functional research support roles, for example, ones focused on managing APC payments. However, significantly, this research has shown that many of the new functional roles that are now being created are not just focused on technical and clerical responsibilities, but are often encroaching into the library engagement role that was once exclusively occupied by subject librarians. Some new functional support roles, particularly those focused on research support, can even have a strong strategic focus to the role. Figure 6.2 to Figure 6.7 in Section 6.3.1.1, which visually depict how academic services were structured at each of the case study sites, illustrate this point since many of the functional teams and roles depicted do not just sit on the periphery of the diagrams but extend into the centre. This demonstrates that these roles have a strong engagement element, and sometimes even a strategic focus. Therefore, this is not only requiring decisions to be made regarding boundaries between functional and subject librarian roles, but also potentially diminishes the centrality of subject librarians in the provision of academic services to the rest of the institution. This is particularly evident when it is taken into account that there were many examples found in this research of the number of subject-based librarians being reduced in order to grow the number of functional roles within structures.

In addition to this potential reduction in the prominence of subject librarians in academic library structures as functional roles increase, a key theme that emerged in this research was that

even when participants identified the continuation of a structure that was based on subject librarians, it was frequently expressed how these were far from traditional subject librarians. A key trend that can again be identified as an example of DiMaggio and Powell's (1983) institutional isomorphism at work as similar changes are made to the role across the sector. The changes being made to these roles that were detailed in the results of this research include addressing issues around efficiency, consistency and focus, as well as making the role more strategically focused. Significantly, these were some of the main drivers for creating functional structures, and to an extent, the subject librarian role is often being made more functional, by being stripped back to focus on the activities of engagement and teaching and learning support.

6.3.2 Contextual factors influencing decisions around organisational structures

It was clear that the results of this research generally align with the findings of Hoodless and Pinfield (2018) in that academic libraries were reacting to opposing factors driving them in one direction towards implementing functional structures, whilst simultaneously also driving them towards maintaining subject structures. This is resulting in libraries often combining both elements to varying extents, which is leading to the diversity of organisational structures observed in this research. Significantly, when discussing the drivers for either maintaining a subject-based approach or undertaking a restructure to create a functional structure, the results generally support the original findings of Hoodless and Pinfield (2018), with the senior managers interviewed discussing many of the same drivers. Although, there were some small differences that will be highlighted in the discussion below.

Nevertheless, when the results of this research are combined with the findings of Hoodless and Pinfield (2018) what emerges is that it appears as though DiMaggio and Powell's (1983) three mechanisms of isomorphic change are not in alignment, which is resulting in the diversity, rather

than homogeneity, being observed in structural changes. As identified in the results of this research, academic libraries are being exposed to a range of common drivers to change their organisational structures. To an extent, these common drivers can be described in the terminology of DiMaggio and Powell (1983) as coercive pressures, since many of them relate to the external pressures exerted on academic libraries due to the marketisation of higher education, influence of new public management practice and the associated drive to become more innovative organisations. Whilst these coercive pressures promote a functional approach to structuring academic libraries, academic libraries are also being exposed to the normative pressures of the profession of librarianship, which promote the continuation of subject-based structures. The impacts that both functional and subject-based structures have on academic libraries and how they relate to this conflict between the coercive and normative isomorphic pressures will be further explored further in Section 6.3.3.

Nevertheless, since all academic libraries are being subjected to these opposing drivers and pressures, Hoodless and Pinfield (2018) identified how it was the contextual factors unique to each academic library that were instrumental in accounting for how individual libraries were responding to these pressures and to the resulting decisions regarding where their organisational structures fell on the functional-subject spectrum. Therefore, this research was able to explore in more depth the contextual factors that were leading to the diversity of structures and roles that were observed in the results of this research. These contextual factors are outlined below with most of them generally aligning with some of the elements of the McKinsey 7S model of Waterman, Peters and Philips (1980), as well as the extended version created by Cox et al. (2019). The elements from these two models that emerged as being most influential in terms of choice of organisational structure are discussed below and included:

- Wider institutional context
- Library services
- Library staff and skills

Library leadership

6.3.2.1 Alignment with the wider institutional context

The results of this research confirmed that the need to align with the strategy of the overall institution was a considerable driver influencing the changes that are occurring to the structures of all academic libraries in the UK. Significantly, whilst Hoodless and Pinfield (2018) identified that alignment with university strategy was a key driver for implementing a functional restructure, the results of this research have established that even where a subject-based structure has been maintained attempts are being made towards strategic alignment with university priorities. However, it is noteworthy that despite this common drive for strategic alignment, no patterns emerged in this research regarding the choice of structure for an academic library and the mission group of the parent institution, which corroborate the previous findings of Hoodless and Pinfield (2018). Although, Hoodless and Pinfield (2018) did identify a driver for maintaining a subject-based approach was the perception that functional structures were more appropriate for large, researchintensive universities, yet, this did not emerge in this research as a driver anymore and is one of the differences with the original findings. This is likely because since the original research there has been an increase in functional restructures across the sector, including examples at teaching-led universities that have been reported in the literature (Hoodless & Pinfield, 2018; Woolley & Core, 2018).

Therefore, altogether, whilst the alignment with the strategy of the overall institution is clearly a major influence on the changes that are occurring to the structures of academic libraries, it does not account for the differences between the structures of different libraries observed in this research. Yet, interestingly, this finding contrasts with the views expressed by Dillion (2008), Lankes (2014), Schonfeld (2016), Dempsey & Malpas (2018) and Malpas et al. (2018) who all envisioned that the organisation of academic libraries would diverge as they align themselves with the type of

university they are a part of. Malpas et al. (2018) expected that "a research library will have strong incentives to provide support for emerging forms of digital scholarship, and to provide curatorial services for a broad range of research outputs" whilst "A library in a teaching-focused institution may invest more in services supporting areas relating to student success" (p. 11). Notably, these commentators are discussing the changes that are occurring to academic libraries from the North American context and further research would be required to establish the trends occurring there; however, this research has shown that for the UK this is an oversimplification.

As McNicol (2005) identifies, all universities are going to have elements in their strategy that relate to teaching and learning, including improving the student experience, and research, and these are the areas that academic libraries can most easily support since they are most related to their core business. It is clear from the results of this research that the vast majority of academic libraries in the UK, irrespective of whether the parent university is research-intensive or teaching-led, are expanding their research support and structuring this support functionally. Similarly, libraries in research-intensive universities are still expected to support students, and there were examples in this research of research-intensive universities growing their student support alongside research support. Although beyond the scope of this research, this could be seen to be indicative of the homogeneity, rather than diversification, observed to be occurring in the UK higher education system by the likes of Brown and Carasso (2013) and Sauntson and Marsh (2011). In particular, the almost universal establishment of functional research support within academic libraries in the UK that was identified in this research appears to support the view that "the research library is seen as a terminal point in evolution" (Dempsey & Malpas, 2018, p. 67), with all libraries aspiring for this status due to the prestige associated with it. This contrasts with the diversifying US higher education system described by Dempsey and Malpas (2018), although it would be interesting for future research to investigate the changes occurring to academic libraries and their organisational structures in the US further in order to compare with the UK.

Nevertheless, whilst this research identified some homogeneity regarding the structuring of core services, particularly the establishment of functional research support, it was also shown that beyond this the organisational structures of academic libraries in the UK were actually diversifying. Significantly, it is the differing ways and extents to which academic libraries are expanding their remits beyond core activities that can go some way to account for the diversity of organisational structures that were observed in this research, which will be explored further in Section 6.3.2.2. Whilst commentators such as Dempsey and Malpas (2018) present a convincing argument regarding the diversification of libraries due to different university missions, they appear to make the implicit assumption that key activities to support the direction of the university will inevitably be placed in the remit of the library and these will be stable. However, as identified McNicol (2005) and Cooper et al. (2022), due to contextual factors that will be discussed in Section 6.3.2.3, it is often impossible for academic libraries to support every aspect of their university's strategy. In addition, for the UK context at least, the library is operating alongside other professional support services and any responsibilities that fall outside of core library activities could be placed in other support areas in the university or vice versa. Therefore, irrespective of whether or not the institutional priorities of universities in the UK are diverging or converging, the impact of the wider institutional context on academic libraries and their choice of organisational structure appears to be more complex than the mission group of the parent institution.

The way in which the wider institution, particularly the university leadership, perceive the role of the library in contributing to strategic activities is also going to have a substantial impact on the remit of the library and the subsequent choice of organisational structure to support this. As Jantz (2012b) discusses, the ability of an academic library to innovate is to some extent going to be either restricted or facilitated by their parent institution. Cooper et al. (2022) identified that "university leaders have widely varying expectations of the library". This ranged from "modest expectations" where leaders valued the status quo and had little strategic expectation for the library, to the belief that the library should be contributing more strategically, to others who viewed

"their library as an innovative partner" that successfully contributed to the strategic directions of the institution (Cooper et al., 2022, pp. 16–17). It is clear that if the university leadership does not see the library as a strategic partner then key strategic activities are unlikely to be placed within their remit and library leadership may not feel the pressure to expand their services. As McNicol's (2005) research discussed, some library directors believed they faced difficulties in contributing to certain strategic priorities due a lack understanding amongst university leadership regarding how the library' role related to these priorities. In addition, where university leaders value the status quo it is likely to benefit the library to maintain at least the appearance of a subject-based structure and where changes are made these are likely to be best made incrementally. Whilst, in contrast, this research has confirmed the previous findings of Hoodless and Pinfield (2018) in that a functional restructure can be used to signal a cultural change and attempt to rid the library of problematic aspects of its image.

However, it is of note that in this research there was no mention of university leaders who were resistant to change in the library. Similarly, in their research, Baker and Allden (2017) reported that university senior leaders were generally recommending that libraries move out of their traditional areas. In addition, despite identifying some university leaders who promoted the status quo, Cooper et al. (2022) also stated that, "We heard several times that the library director was too meek in cutting costs for long-standing roles that have become decreasingly valued relative to the university's needs, and as a result insufficiently redeploying personnel resources to address new priorities." (p. 18). This is reflected in the findings of this research, which established an unwillingness amongst university leadership to increase funding for traditional subject-based roles, with functional library roles more likely to secure additional funding for the library. Therefore, it appears that university leadership are unlikely to oppose the removal of subject librarians, and could be, whether intentionally or not, promoting academic libraries to adopt functional restructures.

However, there were some examples from the survey of academic staff who were resistant to change and valued the continuity provided by subject librarians and had, therefore, managed to block restructuring exercises, requiring these libraries to make structural changes more slowly thorough incremental change. This is in contrast to other examples in the results where anticipated resistance from academic staff to changes that removed subject librarians did not materialise, or at least not to the extent to prevent it, and provides an example of how different institutional contexts can influence the choice of organisational structure for the library. It is clear that academic libraries have to navigate the expectations of both library leaders and academics regarding the role of the library within the institution, which could be in opposition. Therefore, it would be interesting for future research to investigate these expectations further, including how they might differ between universities.

Whilst the opinions of university leaders require further investigation, the results of this research indicated that, in agreement with the findings of Baker and Allden (2017), there is no consensus amongst university leaders regarding the responsibilities and position that an academic library has within its parent institution. As McNicol (2005) predicted, some university leaders are no longer structuring their academic libraries as separate units within the institution, and are instead grouping them with other departments. Yet, significantly, there is variation across the sector as to which departments academic libraries are grouped with within universities. Whilst this research did not establish a link between how academic libraries were structured within their overall institution and the choice of organisational structure for the library, it is illustrative of the disparity in the sector regarding the position and role of an academic library within the remit academic libraries, which as will be discussed below, is influencing decisions being made regarding organisational structures.

6.3.2.2 Changing role of academic libraries and jurisdictional boundaries

It is widely acknowledged that academic libraries are having to redefine their role within universities and innovate in order to remain relevant and not become marginalised within their institution, with one main approach they are taking being innovations with regard to services that go beyond those traditionally provided by libraries (Jantz, 2012b; Law, 2009; Rowley, 2011). There were many examples of the development of such services in the libraries involved in this research. As indicated above in Section 6.3.1.2, as academic libraries expand their services this drives organisational structures to become more functional, since these new responsibilities can often not be incorporated into the subject librarian role. However, whilst Quinn (2000) discussed how the impact of McDonaldization was resulting in academic libraries providing the same services, this similarity was not observed in the results of this research. Beyond core library services, there is a distinct diversity occurring in the services being included within the remit of academic libraries, which is resulting in a diversity of structures developing. Libraries with a larger remit of responsibilities, whilst this does not always result in the removal of subject librarians, are likely to have more functional elements to their organisational structures overall.

One of the eleven strategic shifts Cox et al. (2019) identified for academic libraries was "a growing range of services", but in line with their findings this growth is not occurring consistently throughout the sector. Although, as previously discussed, this growth is also not consistent with the mission group of a university. Instead this research suggests that this disparity in services is related more to one of the other strategic shifts identified by Cox et al. (2019), that of the library's relationship and boundaries with other stakeholders within the university, which can differ between institutions. As discussed by McNicol (2005), with academic libraries becoming more outward-looking and seeking to align with institutional priorities, they have to consider how the library relates to other areas of the university and how the role of the library will fit into with the services already provided elsewhere. Furthermore, Rowley (2011) discusses the importance of collaborative innovations for academic libraries, which involves the development of relationships and library

services that connect different departments and span organisational boundaries. As McNicol (2005) states, "library provision does not, and should not, exist in a vacuum" (p. 508).

This research has shown that there is a wide range of new responsibilities and services that are being placed within the remits of academic libraries as they expand beyond their traditional roles and shift their emphasis away from collections to services, which has been discussed in the literature as being essential for their survival. Many of these new roles and responsibilities have been mentioned throughout the findings of this research and include academic skills, research data management, bibliometrics, researcher training, employability skills and digital skills to name a few. However, it is clearly not inevitable that these new services will be provided by the library, since they crossover with other university departments, particularly IT departments, research offices and student services, within which many of these services can also be located (Pinfield et al., 2017; Verbaan & Cox, 2014).

As identified by Pinfield et al. (2017) academic libraries are having to navigate a complex environment of both collaboration and competing for services with other professional groups within the university. The outcomes of this ongoing navigation are dependent on multifaceted contextual factors that relate the McKinsey 7s models (Cox, A. M. et al., 2019; Waterman et al., 1980), and include existing relationships between professional groups, leadership of the institution and the different departments and organisational culture. Therefore, how these responsibilities and services are assigned within a university is not consistent throughout the sector, and for each potential new service the academic libraries can expand into their involvement can range from no involvement at all, through various degrees of collaboration and division of responsibilities, up to the Library leading or even taking sole responsibility for a service. When investigating the development of research data management services, Verbaan and Cox (2014) described the development of services within an institution as a 'constellation', which can actually be used to describe the development of all services within a university as it conveys how the composition will likely be unique to that institution.

Therefore, this negotiation for jurisdictional boundaries occurring within each institution is reducing the impact of the memetic processes discussed by DiMaggio and Powell (1983) on academic libraries since the resulting differences in services means that, whilst library leaders can model elements of their organisation on other academic libraries, they cannot be completely replicated.

Altogether, the resulting decisions being made regarding the positioning of services within the institution are having a large impact on the structures of academic libraries, which reinforces the importance of the inclusion of 'Services' within the extended McKinsey's 7S model created by Cox et al. (2019). As the remit of an academic library expands, there is a clear need to rethink the organisational structure, and the more services additional to core library services that an academic library acquires, the more likely it is that these will become functional elements in the library structure. This is because, as has been discussed in the literature by such people as Rodwell and Fairbairn (2008) and firmly established in the results of this research, subject-based librarians are already overloaded and generally unable to take on additional responsibilities. In addition, the reluctance amongst university leaders to increase funding for subject-based librarians, which was identified in this research, is resulting in an inability to increase the size of subject librarian teams to grow their capacity for new responsibilities. In contrast, functional roles are generally more likely to gain the library additional funding as they often more clearly link to the strategic activities of the institution. Consequently, this means that providing new services via a matrix structure using subject librarians is often not feasible and does not place the library in an advantageous position to secure additional functional, which explains why this model is not often used in the sector. Therefore, as the remit of an academic library grows and takes on more services this is pushing organisational structures more towards the functional end of the subject-functional spectrum, which is resulting in the reduction of the prominence of subject librarians within the organisational structures of some academic libraries, as discussed in Section 6.3.1.2.

In addition, as libraries expand their academic services and their remit increases beyond that which can be provided by subject-based librarians, structures inevitably become more complex and the number of ways that responsibilities can be divided up increases, contributing further to the diversity of structures being witnessed. Significantly, when Pinfield et al. (2017) surveyed library staff, whilst they identified confidence amongst participants that the academic library would continue to be involved in, and in many cases leading in, a wide range of service in 10 years' time, similar to the findings of this research, their results showed no consensus as to what these services would be. Therefore, whilst Cox et al. (2019) identified that the growth in library services was an 'incomplete' strategic shift, the diversity of library services being observed may not be the result of a transitional period in which by the end academic libraries will converge and again resemble each other. Although, future longitudinal research would be required to confirm this and investigate if this divergence in library services, and the resulting variation in organisational structures, continues.

Nevertheless, in relation to how the expanding and diversifying remit of academic libraries specifically impacts on decisions regarding the continuation of subject-based librarians in library structures, the original research carried out by Hoodless and Pinfield (2018) highlighted the significance of expanding into research support areas. In their research, they identified that for senior managers who had undertaking a large-scale functional restructure, whereby subject librarians were removed, one of the main drivers discussed was the need to grow their research support services and provide clear expertise in this area (Hoodless & Pinfield, 2018). The results of this research show that evidently senior managers still use this as one of the main justifications for removing subject librarians and replacing them with functional teams. However, this research has also shown that the vast majority of academic libraries are developing functional research support, often alongside their existing subject librarians. The specific responsibilities relating to research support and differences in jobs titles relating to research support in libraries, but it now appears to be widely accepted that these responsibilities are at least partially structured functionally. Therefore, the

increasing need to provide expertise to support research does not fully account for the decision being taken by some to remove subject librarians completely and replace them with functional teams.

The emphasis on research support by senior managers can be attributed to the fact that academic libraries are well established at providing teaching and learning support within universities, however their role in research support is not as recognised (Baker & Allden, 2017; Brown, J. M. & Tucker, 2013). Therefore, as evidenced in the literature review and commented on by Corrall and Jolly (2019) there has been a distinct focus on the ways academic libraries are extending their roles to support research, with comparatively little discussion on the changing and expanding role of teaching and learning support services in academic libraries. Cooper et al. (2022) also identifies that university leaders tend to be more focused on their university's research strategy, which is illustrative of the impact of what Brown and Carasso (2013) identify as the prioritisation of research over teaching resulting from marketisation policies that promote research selectivity. Therefore, it is unsurprising that not only are the majority of libraries establishing functional research support roles, but also the need to establish expertise around research support continues to be used to justify a functional restructure that replaces subject librarians with functional teams.

Nevertheless, significantly, what emerged from this research, which had not been present in the original research conducted by Hoodless and Pinfield (2018), was the impact on organisational structures, specifically the use of subject librarians, when academic libraries expand their range of services in relation to student support. Ironically, whilst the well-established role of the academic library in supporting teaching and learning has led to a focus on the need to grow research support services and the competition for jurisdiction in this area, it is in fact the jurisdictional claims and resulting boundaries regarding student support that are having the largest impact on decisions regarding subject librarians.

As academic libraries expand their services within the domain of research support, particularly in relation to new areas such as research data management, it is well documented that the library is often competing for jurisdiction with other professional groups within the university, specifically IT services and research administrators (Pinfield et al., 2017, 2014; Verbaan & Cox, 2014). Yet, as identified by Verbaan & Cox (2014) when discussing RDM, but equally relevant for research support services as a whole, academic libraries do not appear to be "fighting for "full jurisdiction"" and instead "the parties are working towards a "divided jurisdiction"" (p. 217). Full jurisdiction, as defined by Abbott (1988), can include subordinating other professional groups involved in an area of work. However, there was no evidence in the findings of this research to suggest this was happening in terms of research support services, with services being divided amongst professional groups, albeit not consistently, and no examples of previously established research administrators or research offices being relocated into the library.

In contrast, in terms of teaching and learning support services more diversity emerged regarding the settlement of jurisdictional boundaries with other professional groups providing student support services, particularly in relation to the positioning of other professional groups within the library. Analogous to new areas emerging in the domain of research support, new areas have opened up in terms of teaching and learning support, particularly around providing academic/study skills, employability skills and other lifelong skills. This is in response to marketisation policies that have promoted the growth and diversification of students entering higher education whilst simultaneously redefining the student as a 'consumer' who requires value for money from their degree (Brown, R. & Carasso, 2013; Maringe, 2011; Molesworth et al., 2009). Supporting learning and teaching has been a core role for academic libraries for years and has long been incorporated into the mission statements of academic libraries, particularly in relation to information literacy support (Corrall & Jolly, 2019; Wadas, 2017). Therefore, academic libraries are well placed to expand the support they provide to students, particular in relation to developing the skills they require for their studies and their future employment. However, comparable to when they

are looking to expand their research support services, academic libraries are often competing for jurisdiction with other professional groups within their institution. In this instance, it is predominantly student support services, and more specifically often the growing profession of Learning Developers, who support students in their transition and progression through university, and particularly in the development of academic literacies (Hill et al., 2010). Significantly, these teams of Learning Developers can be positioned in various areas of the university, including student services, careers, academic departments or even the Library (Briggs, 2018). Additionally, IT services could also have claim to jurisdiction in this area, as they can be involved in teaching digital and IT skills to students.

Unlike with the jurisdictional challenges around research support, there were examples in this research of libraries expanding into new student support areas that sometimes involved preexisting teams being moved into the remit of academic libraries. The extreme of this is superconvergence, although it has been questioned as to whether this is the library 'taking over or getting lost' (Heseltine et al., 2009, p. 124). Nevertheless, whilst super-convergence may be rare and predominantly occurring in post-92 universities, this research has shown that there are examples of various combinations of services related to student support being moved into academic library structures across the sector, particularly those with any responsibility for teaching students and supporting them in the development of their skills. This is evidently influenced by some of the same factors driving full super-convergence, particularly the focus on improving the student experience and making it easier and clearer for students to access services by bringing different services together (Heseltine et al., 2009). This is again associated with the impact of the marketisation of higher education and the redefining of the student as a consumer (Nixon et al., 2011; Parkes et al., 2014). Significantly, a comparable motivation to unite research support within an institution does not currently appear to exist, which could partially account for the settlement on some form of divided jurisdiction amongst professional groups providing research support.

Whilst some teaching and learning services have the potential to be moved into the remit of the library and be structured as additional functional teams, with little impact on subject-based librarians, this is not always the case, particularly if these teams have any responsibilities involving teaching students. This is because, despite often being described as role with a variety of responsibilities (Brewerton, 2011), subject librarians are strongly associated with information literacy education (Cox, A. M. & Corrall, 2013). As discussed in Section 6.3.1.2, this prominence of information literacy teaching in the subject librarian role is only increasing as their responsibilities are being striped back to predominantly focus on engagement and information literacy education in order to avoid overloading staff and to make the subject librarian role more strategically focused. Therefore, if other teams providing teaching support to students are relocated into the library it is evident from the results of this research that this can lead to a questioning of the boundaries between these teams and subject librarians due to the similarities in the focus on developing student skills. This is particularly the case with teams that teach academic or study skills that are relocated into the library, due to the clear overlap between academic skills and information literacy (Howard, H., 2012).

Altogether, a key finding of this research was that despite the importance often placed on the need to develop research support, a determining factor in the decision to undertake a functional restructure that removes the subject librarian role is the, often implicit, motivation to unify the library's provision for student support. This is usually following the move of other student support teams into the library, with this having occurred in most of the examples in this research of libraries that had carried out functional restructures that removed the subject librarian role. There was one example of this not being the case; however, whilst a pre-existing team had not been moved into the library, the library was expanding their student support provision beyond information literacy education to include academic skills. Therefore, since the subject librarian role is strongly associated with information literacy education, by removing the role and replacing it with a functional team focused on teaching and learning support this can signal to the rest of the university that the library

is expanding their skills support beyond information literacy. This could be seen as an attempt to claim jurisdiction of this area and try to avoid competing professional groups being established elsewhere in the university, which potentially becomes more important than reflecting the structure of academic departments.

Significantly, this is comparable to what is happening regarding the establishment of research support teams. Functional teams are being used to advertise the library's involvement in new areas of responsibility and in some ways claim jurisdiction of these areas. This is also another reason why matrix structures are not often used to structure subject and functional responsibilities, since they do not clearly advertise these claims to new jurisdictions in the same way. However, whilst subject librarians are involved in research support it is not as ingrained in the role as information literacy support. Therefore, when libraries expanding into new research support roles, this is not having the same impact on decisions regarding the use of subject librarians beyond the potential reduction in their number in order to grow functional research roles.

Nevertheless, despite this centrality of expanding the teaching and learning support provided by the library to decisions regarding the use of functional structures, it is important to note that it is not inevitable that when the library's remit expands to include areas such as academic skills support that the subject librarian role will be abandoned. There were examples of teams responsible for developing student skills, particularly academic skills, moving into the library and being kept separate from subject librarians; these teams being combined with subject librarians but retaining their individual identities and job titles; and subject librarians taking on responsibility for academic skills. Therefore, the decision to remove subject librarians from academic library structures and replace them with functional teams is more complex than whether or not the library has expanded into new areas of teaching and learning support, despite it clearly being a significant consideration in decision-making. From this research, many contextual factors relating to the library emerged that

are also influencing the decisions being made regarding organisational structures, which will be explored in the next section.

6.3.2.3 Library context

As well as the impact of the wider institutional context and the related changing role of academic libraries on the choice of organisational structure for academic libraries, it is clear from the results of this research that the library context is also an important factor with regard to the divergence of structures observed in the sector. Whilst the different services that are being placed within the library remit are having a large impact on the choice of organisational structure, as discussed above, it is not inevitable that the inclusion of certain services will result in a particular structure, and there are other contextual factors related to the library itself at play. Significantly, most of these internal library factors are related to the "barriers to strategic performance" for academic libraries that Cox et al. (2019, p. 320) identified. This is unsurprising given that Cox et al. (2019) also acknowledged that most of these strategic barriers fall within the McKinsey 7S model and, therefore, due to the interdependent nature of the elements of this model, these potential barriers are also influencing, and often restricting, the choice of organisational structure for academic libraries. The factors related to the library context that emerged from this research as influencing the choice of library structure and contributing to the diversity of structures across the sector included resource limitation, staff, the library building and its position on campus, and the library leadership, all of which will be explored below.

1. <u>Resource limitations</u>

Cox et al. (2019) identified that lack of resources can be a barrier to the strategic performance of academic libraries as it prevents them from being able to respond to new strategic

directions effectively. This barrier is strongly related to the organisational structure because, as this research has shown, library leadership is often restricted in their choice of organisational structure due to the current size of the workforce, as it was discussed how funding to increase staffing was generally unavailable, particularly for subject-based roles. Therefore, when attempting to respond to the strategic direction of the parent institution and expand the remit of the library, library leadership often has to rethink core subject-based structures in order to grow other areas. Consequently, the constraints of library budgets appear to be driving structures to become more functional, sometimes out of necessity, particularly since it is functional roles that seem more likely to earn the library additional funding.

In addition, some participants in this research believed that functional structures were more appropriate for libraries with a larger pool of staff from which to create functional teams of an adequate size and avoid single points of failure. Although, as Child (1972) discusses, whilst there is an argument that organisations of a larger size benefit more from specialisation, he does highlight there is a debate regarding the impact of size on choice of organisational structure and there are options available to smaller organisations in adopting functional structures. The results of this research further highlight this debate, with the results showing academic libraries of a range of sizes adopting functional structures that remove subject librarians. Nevertheless, significantly, this research has shown that there is some disparity across the sector regarding staffing levels, whilst size may not be deterministic in terms of organisational structure, it will put a constraint on the choices available (Child, 1972). Therefore, variations in the size of the workforce are also contributing to the diversification of structures in the sector.

2. <u>Staff</u>

Cox et al. (2019) identified lack of skills and problems with organisational culture as potential barriers to the strategic performance of academic libraries, which both relate to the individual staff

that are working within different academic libraries. Significantly, as Hoodless and Pinfield (2018), identified, a full restructure around functional teams that removes subject librarians can occur when library leadership perceive there to be a problem with the organisational culture of the library and want to instigate a cultural change. In addition, where there is perceived to be a lack of specific skills in the library, this research has shown that functional structures and roles are being used to bring people with different skillsets, including different professionals into the library, which will be explored further in sections 6.3.3 and 6.3.4. Furthermore, in general, it is clear from the results of this research that, in connection with the above factor regarding restriction of staffing size, the organisational structures of academic libraries are being created to suit the current staff and their skillset, with some roles being created with specific staff in mind. Altogether, there is often the implicit suggestion that with a different group of staff, a different organisational structure would be used, which again is further contributing factor to the diversity of structures in the sector.

3. The library building and its location on campus

Interestingly, what emerged from this research was the impact of the library building itself on the organisational structure of academic libraries, which, significantly, does not align with any of the elements of the McKinsey 7S model and is not explicitly present in the extended model of Cox et al. (2019). However, this research has shown that the library building and its location on campus can affect the services, particularly in relation to student support, that are placed within the remit of the library, which, as discussed in Section 6.3.2.2, will in turn affect the choice of organisational structure for the library. Not only are libraries with multiple sites often more suited to subject-based structures, libraries that are centrally located and with a suitable design are better placed to expand into other areas of student support and become central to the student experience. Therefore, as identified by Wales (2018), the location of an academic libraries has a significant impact on its

strategic development, and, consequently, a poor location and/or design of a library building could be added to the list of barriers to strategic performance identified by Cox et al. (2019).

It is significant that the contingent factor that is often involved in the decision to restructure around functional teams involves the library moving into a new, often purpose-built, building. This creates an ideal opportunity for library leadership to change organisational structures, since a disruptive change is already occurring and the desire to avoid disruption is often a driver for changing structures incrementally rather than via a formal restructuring exercise (Hoodless & Pinfield, 2018). However, in addition, other student support services are often being relocated into these new buildings along with the library to create a centre for student-facing services, which is why a new building can also be the catalyst for super-convergence (Bulpitt (ed.), 2012). Altogether, as discussed above, being positioned with student service creates the opportunity for a library to expand its teaching and learning support, which has the potential to promote a more functional structure for the library.

4. Leadership

In many ways, the above discussion on the findings of this research appear to align with the explanation of structural variation provided by contingency theory (Donaldson, 2001), in that there is no ideal model of organisational structure that can be applied to all academic libraries. Contingency theory would claim that each individual library is developing their structure in response to a complex set of internal and external factors. Whilst, as discussed above, some of these internal and external contextual factors do promote certain decisions regarding organisational structure, what emerged from the findings of this research was the key influence of the individual library leaders themselves. This influence is evident in the above discussion of the contextual library factors affecting structural choices, particularly regarding resource limitations and staff, and the way they interpret these factors. This importance of the individual library leaders that was clearly identified in

this research aligns with Child's (1972) theory of 'strategic choice' in the determination of organisational structures. Consequently, the development of a causal sequence of factors that predicts structural development is impossible (Child, 1972), since the opinions, preferences, and even personalities, of the individual library leaders all emerged as significant factors.

Whilst, as discussed in Section 6.3.2.1, the ability for a library to innovate and change can be influenced by how the wider institution views it and its role, as stated by Jantz (2012b), individual leaders also have a profound impact as well. Cox et al. (2019) identified that there is a tendency for library managers to "want to be seen as good institutional citizens and not risk takers" (p. 320), and the findings of this research indicate that a functional restructure, that completely removes subject librarians, is considered to be a more risky choice of structure. Hoodless and Pinfield (2018) identified that this was because of the disruptive nature of such restructures and the perceived potential a functional structure has to negatively impact on the reputation of the library and its relationships with academics. However, this research has also identified that it is believed a functional structure has the potential to be damaging to the identity of the library and the unique position it holds within an institution. These perceived risks of a functional structure will be explored further in Section 6.3.3. However, it is clear that the choice to carry out a functional restructure and remove subject librarians is unlikely to be carried out by a risk averse library leader. Therefore, since library leaders are discussed in the literature as generally being risk averse, often due to the traditions embedded within the librarianship profession (Cox, A. M. et al., 2019; Jantz, 2012b), it is unsurprising that despite the growth of functional teams within academic libraries, the complete removal of subject librarians from organisational structures is still rare in the sector.

Nevertheless, the impact of library leadership on decisions around the choice of organisational structure for academic libraries goes further than whether or not they are risk averse. As identified by McNicol (2005) and Cooper et al. (2022), due to the resource limitations often faced by academic libraries that are discussed above, it is impossible for academic libraries to support

every aspect of their university's strategy and decisions have to be made by library leaders as to which will be prioritised. This is illustrative of the importance of 'strategic choice' discussed by Child (1972), with different library leaders having different opinions regarding what should be prioritised, which was identified by Pinfield et al. (2017), when they found "no consensus about which trends were most important" for academic libraries (p. 55).

Whilst the impact of how university leadership view the role of the library within their institution is inevitably going to influence whether or not strategic activities and services are placed within the remit of the library, this research has shown that library leadership are not passively involved in these decisions. There were clear examples in this research of library leadership proactively attempting to expand library services into new areas. As discussed by McNicol (2005), some library leaders focus on the strategic areas that the library can clearly support, however, others are able to see opportunities in strategic areas that are not as obviously associated with the library and, significantly, are able to persuade university leaders of the importance of the library's involvement in these activities. Whilst McNicol (2005) identified that these decisions were influenced by resource constraints and university leadership, these differences in the ambition and influence within the institution of library leadership are unavoidably contributing to the differences in services, and consequently, structural choices, observed in this research.

Although, it is noteworthy that this influence of strategic choice is also a factor shaping the decision making of both university leadership and leaders of other professional services within the university as well. Child (1972) stated, when discussing the boundaries between an organisation and its environment, that these are "defined in a large degree by the kinds of relationship which its decision-makers choose to enter upon with their equivalents in other organisations, or by the constraints which more dominant counterparts impose upon them" (p. 10). In this quote, Child is discussing relationships between different organisations, but this equally applies to the relationship between different professional teams within a university setting. Therefore, further research would

be required to investigate the interdependent nature of the strategic choices made by different leadership groups within universities and the impact of these on the positioning of strategic activities in relation to the library by examining the opinions of university leadership and leaders of other professional services regarding jurisdictional boundaries.

Nevertheless, the impact of library leadership evidently extends to the very way that leaders interpret, and even influence, the external and internal environments in which academic libraries are operating, in accordance with Child's (1972) theory of 'strategic choice'. Hoodless and Pinfield (2018) identified this in their research in the opposing drivers for both functional and subject-based structures with senior library managers varying in the importance they place on different factors that were impacting on structures. Significantly, the results of this research have further highlighted the increasingly divergent views amongst library leadership and lack of consensus regarding priorities and even the vision for the future of academic libraries.

As will be discussed in the next section, subject and functional structures have opposing benefits, which often relate to the conflicting coercive and normative pressures (DiMaggio & Powell, 1983) being exerted on academic libraries. Therefore, the value individual library leaders place on these opposing benefits, and their personal attitudes towards the conflicting pressures of marketisation and professionalism, which can elicit emotional responses from individuals, is strongly influencing the choice of organisational structure and is contributing to the variations in structures being observed in the sector. Significantly, Pinfield et al. (2017) highlighted the many paradoxes library leaders are simultaneously contributing to and navigating, and to a large extent, the diversity of structures that are emerging along the subject-functional spectrum is emblematic of the conflicting advice, opinions and pressures that are prolific in the sector.

6.3.3 Impact of different structures

In terms of the impact that functional and subject structures have on the library and ways of working, it was evident that they were perceived by the participants in this research to provide opposing benefits to the library. Therefore, what appears to be occurring in the sector is that library leadership are combining subject and functional elements in their structures in order to balance these opposing benefits in a way that suits both the contextual factors unique to each institution and their own opinions regarding the importance of these benefits, both discussed in Section 6.3.2. This is resulting in organisational structures that fall at various points along the subject-functional spectrum and the diversity of structures observed in the sector. It also explains why structures that are completely functional or subject-based are extremely rare in the sector, as these will entirely lose the advantages of the other type of structure.

Significantly, the opposing benefits of functional and subject-based structures often relate to the coercive and normative mechanisms identified by DiMaggio and Powell (1983), although instead of aligning to create isomorphic change as DiMaggio and Powell predict, they are in fact in conflict. As will be discussed below, the benefits of functional structures often relate to external coercive pressures around the marketisation of higher education, the influence of new public management practices in the public sector and the associated pressure for academic libraries to innovate. Whilst, in contrast, the benefits of subject-based structures relate to normative pressures from the librarianship profession. Overall, the impact of a functional structure is that it can move a library away from a "bureaucratic-professional' model associated with traditional subject-based structures, which is based on the norms and values of the librarianship profession, and moves it towards a 'consumer-managerial' model, which Nicholson (2015) sees as trend throughout Higher Education due to marketisation. Therefore, the mixing of functional and subject elements in structures can be seen as the "hybridization" (Reed, 2005) of both models.

Figure 6.9 illustrates the opposing benefits of functional and subject structures, with each described in more detail below along with how opinions regarding the importance of these benefits can differ. This includes discussion of how functional structures relate to 'consumer-managerial' models and coercive pressures towards new public management practices, whilst subject structures relate to 'bureaucratic-professional' models driven by the normative mechanisms of the profession. Significantly, whilst Figure 6.9 resembles the diagram created by Hoodless and Pinfield (2018) regarding the opposing drivers for functional and subject-based structures and there is some crossover, there are distinct difference. This diagram focuses on the potential impacts of the opposing structures, rather than drivers, and incorporates factors that are more implicit in decision-making regarding choice of organisational structure that did not emerge in the original research, and which could inform future decision making regarding structures of academic libraries.

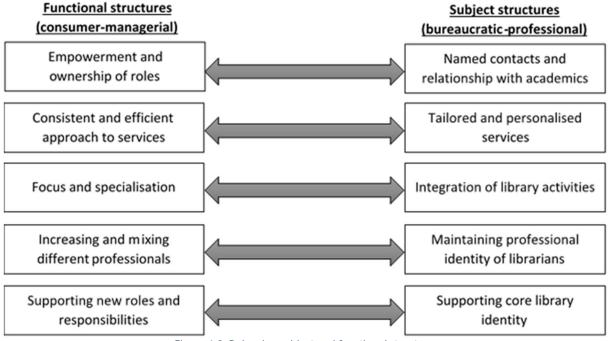


Figure 6.9: Balancing subject and functional structures

6.3.3.1 Ownership/empowerment vs named contacts/relationship with academics

One of the main benefits of subject-based structures discussed by participants in this research, as well as one of the main drivers identified by Hoodless and Pinfield (2018) for libraries to maintain subject-based structures, was the strong relationships with academics and their departments that they allow to develop. In agreement with the findings of Hoodless and Pinfield (2018), the risk of jeopardising the strong relationships subject librarians have with the academics they support was still one of the main concerns participants had with regards to implementing a functional structure that removed subject librarians. This was also one of the main disadvantages participants from libraries with functional structures identified in their structures and was usually the reason those who had implemented a functional structure either had incorporated a subject element at the time of implementation or had done so after the structure was reviewed. This ability to develop strong relationships with academics is clearly perceived to be important in order for academics to become partners with academics in the learning, teaching and research processes, which is deemed to be crucial in the future role libraries (Delaney & Bates, 2015; Meulemans & Carr, 2013; Pinfield et al., 2017). Although, it is notable, that despite being in the minority, there were some participants, particularly library directors, who felt that named contacts were not a requirement for academic libraries.

Significantly, what emerged from this research, which was not identified as a driver for implementing a restructure around functional teams in the research carried out by Hoodless and Pinfield (2018), but is a clear benefit of such structures, is that ownership and power are distributed more equally across the library. Whilst subject-based librarians providing named contacts for academic departments and being able to build up strong relationships with them is seen as an advantage of subject-based structures, this research has shown that this can lead to them holding a lot of power within the library. Significantly, this impacts on the ownership other teams in the library have regarding their own roles and responsibilities, including involvement in overall decision-making within the library. This can lead to tension and communication issues between subject librarian

teams and other functional teams in the library, and this has already been observed between subject librarians and technical services teams (Gould & Mezick, 2021). This has the potential to increase as academic libraries take on additional responsibilities that have to be structured functionally. As Child (1972) describes, as organisations become more complex, overall coordination of sub-team activities becomes more difficult, and there is pressure towards functional autonomy. Child is discussing this in terms of managerial coordination, but it equally applies to subject librarians coordinating the engagement activities for the whole of the library. This goes some way to explaining the reduction in the prominence of the subject librarian role in the provision of academic services, particularly their central role in engagement, illustrated in Figure 6.2 to Figure 6.7 in Section 6.3.1.1.

Overall, functional structures have the potential to create empowered teams, who, as recommended by Sweeney (1994), have a well-defined set of goals and responsibilities and the authority to make decisions regarding these. Although, it is noteworthy that this research has shown that this impact of empowerment and ownership functional structures can have has the potential to be reduced if an engagement team is used in an attempt to replicate the advantages of named contacts and a strong relationship with academics associated with subject structures. This could explain why some libraries that have restructured around functional teams have decided to incorporate subject elements into their structures in other ways, such as functional teams with either formal or informal subject alignment.

Nevertheless, significantly, whilst not explicitly discussed by participants in this research, functional structures have the potential to impact on the ability of academic libraries to innovate. Hage and Aiken (1967), identified centralisation of power and decision-making as one of the key aspects of organisational structure that can impact on an organisation's ability to change and innovate, arguing that in a centralised organisation change can easily be blocked, whilst a decentralised structure can bring together a variety of perspectives, which promotes change. The ability of subject librarians in some structures to delay decision-making or even prevent changes

being made due to the power they hold within the library was alluded to by some participants. As stated by Jantz (2012b) it is believed that structures that empower all staff will "undoubtedly create a more innovative environment in the library and increase the flow of new ideas" (p. 11). Therefore, functional structures could be related to coercive pressures (DiMaggio & Powell, 1983) libraries are facing to innovate and create an environment to promote this, the need for which there is much discussion in the professional literature (Baker, 2016; Brundy, 2015; Deiss, 2004; Jantz, 2012b; Rowley, 2011).

6.3.3.2 Efficiency and consistency vs. tailored and personalised services

This research established that one of the main impacts of implementing a functional structure was that it was perceived to improved efficiency and consistency within the library, however in doing so it was felt this affected the library's ability to tailor and personalise services. This finding of the research is perhaps unsurprising given that these were two of the main opposing drivers for functional and subject-based library structures identified by Hoodless and Pinfield (2018) in their research. However, similar to how the expansion of empowerment and ownership amongst staff within academic libraries can be an impact of a functional structure and is related to the drive towards innovation in academic libraries, the increase in efficiency and consistency is related to coercive pressures (DiMaggio & Powell, 1983) to become more business-like. This is connected to the growth of new public management approaches in Higher Education in the UK, which promotes the adoption of managerial discourse and an increasing focus on productivity, profitability, accountability and measurable outcomes in higher education (Olssen & Peters, 2005; Sauntson & Marsh, 2011). Significantly, these business-like approaches are linked to innovation with Jantz (2012b) stating how "the ability to clearly track and assess impact will become increasingly important as libraries become more innovative" (p. 10). Although, Jantz (2012b) does also

acknowledge that not all library leaders are going to agree that business-like approaches are appropriate for public non-project organisations, and these approaches can divide opinion.

A key criticism of functional structures that is related to these concerns regarding the use of business-like approaches in academic libraries was that they reduced the ability for academic libraries to tailor and personalise services, which, significantly, was perceived to be the key way academic library can add value to its institution. This is also the key argument of Curry and Farmilo (2018) in their defences of subject-based librarians. Although, it is noteworthy, that this was more of a concern for teaching and learning support services, rather than research support services, which explains why research support services are more likely to be structured functionally, with teaching and learning support often remaining with subject-based librarians or in functional teams that are either formally or informally subject-aligned.

Nevertheless, questions were raised in this research regarding what level of subject knowledge was actually required in order for library services to be adequately tailored and whether subject alignment was actually a requirement. This need for subject alignment in order to tailor services could be seen to be an example of the norms and traditions associated with the librarianship profession. The subject librarian role originally developed due to the need for deep subject knowledge in order to build subject collections, and has become a dominant and widely used professional role, both in the UK and in other countries (Corrall, 2013; Cotta-Schønberg, 2007; Pinfield, 2001; Woodhead & Martin, 1982). The links between the subject librarian role and professional legitimacy will be explored further in Section 6.3.3.5. However, it is significant to note that other professional groups do not appear to have the same tradition or perception that tailoring services requires a strong subject alignment. This includes other professional services providing teaching support to students, despite librarians perceiving this to be the area most requiring subject alignment and tailoring of services.

6.3.3.3 Focus and specialisation vs. integration of library services

Similar to the above opposing benefits, it is unsurprising that participants perceived the ability for staff to be able to focus and develop specialist knowledge in their areas to be a key advantage of functional structures, whilst subject structures allowed for the holistic integration of library services. This is because again these were two of the opposing drivers for functional and subject-based library structures identified by Hoodless and Pinfield (2018). In addition, these opposing benefits also align with the general management literature whereby it is accepted that functional structures can promote efficiency and allow for in-depth expertise and specialisation to develop, but this can lead to poor coordination and communication across the functional units (Daft et al., 2017; Tolbert & Hall, 2016). This, therefore, creates a general trade-off between specialisation and integration of activities within an organisation (Lawrence & Lorsch, 1967; Waterman et al., 1980).

This impact of increased focus and specialisation regarding functional structures is related to the above benefit of improving efficiency and consistency, and, therefore, the associated influence of managerialism in higher education. Although, as discussed in sections 6.3.1.2 and 6.3.2.2, it is also a practical requirement as the activities of an organisation become more complex and diverse (Child, 1972). Significantly, whilst the other benefits of functional structures can be related to attempts to improve innovation in the library, paradoxically, the resulting loss of integration that can result is believed to stifle innovation (Daft et al., 2017; Tolbert & Hall, 2016). In addition, the results showed that this lack of integration could lead to gaps in library services developing as well as duplication of work. Therefore, some libraries that have created functional teams and roles have attempted to maintain the integration of library services by continuing to use subject librarians for overall library engagement activities, or, where subject librarians have been removed from the structure, engagement teams have been created for this purpose. Although, as discussed above, this can have its own negative effects on innovation, and wherever there are multiple library teams, whether

subject or functional, the results of this research have indicated how most libraries need to improve connections and communication between teams in order to facilitate integration of library services.

6.3.3.4 Increasing and mixing different professionals vs. maintaining professional identity of librarians

The impact of the increasing use of functional teams/roles on librarians, and how these changes are connected to wider changes to the librarianship profession, will be explored further in Section 6.3.4. However, it is worth noting here that a key impact of functional structures that emerged from this research was that they facilitate the bringing in and mixing of different professionals within the library. Significantly, the need to bring different professionals into the libraries and a key driver for changing structures, irrespective of the organisational structure chosen. Functional roles and teams are a key way that academic libraries are achieving this, since the job titles usually do not contain the title 'librarian' or have a librarianship qualification as an essential requirement of these posts. Even though there were examples across the sector of subject-based librarian roles also not having a librarianship qualification as an essential requirement, it was clear these were unlikely to attract applicants from non-librarian backgrounds. Therefore, functional teams and roles are important for increasing the diversity of professions and skills within an academic library.

Again, this benefit of functional structures is connected to creating an innovative environment for academic libraries. Along with decentralisation, discussed above in Section 6.3.3.1, Hage and Aiken (1967) identified that the complexity of an organisation, which is related to the number of different professional types and the associated diversification of knowledge and skills, can also promote creativity and innovation as it increases. Significantly, as stated by Jantz (2012b), "Diversification of knowledge can be characterized by the number of occupational job titles" (p. 5),

and as this research has shown these are increasing in academic libraries, particularly via the increasing number of functional roles. However, often, although not always, these functional roles were structured separately from subject-based librarians in different teams, which, as discussed above in Section 6.3.3.3 can restrict communication and integration between staff, and consequently innovation.

Therefore, for academic libraries that had restructured around functional teams and removed the subject librarian role, this had facilitated the mixing of professionals within individual functional teams, particularly in teaching and learning teams whereby librarians were often mixed with other teaching professionals. In addition, as discussed above in Section 6.3.3.1, the removal of subject librarians has the potential to increase the involvement of other professional groups in decision-making. Therefore, the capacity a functional structure has to both increase the complexity of the organisation and decentralise power means they have the potential to improve innovation and a library's responsiveness to change (Hage & Aiken, 1967; Jantz, 2012b).

Nevertheless, it was also clear from the results of this research that there was the potential in functional structures for librarians to feel a loss of their professional identity, particularly if they ended up in a functional teaching and learning support role alongside other professionals with the same job title. It was was evident that many librarians strongly associate their professional identity with subject librarian roles and there is a clear tension between structurally connecting librarians with other professionals and maintaining the professional identity of librarians. In addition, in many ways, mixing subject librarians with other professionals and giving them the same job title actually reduces the number of occupational job titles, which Jantz (2012b) argued was important for increasing the complexity and diversification of knowledge within an organisation. Therefore, where this has been implemented, there is the potential for these teams to become a homogenous group of professionals in the future, rather than the mixture of professionals they start out as, as staff leave and are replaced. Significantly, as will explored further below, this homogeneous group of

professionals will not necessarily be librarians. Therefore, in order to balance this, there were some example that came out of the survey of subject librarians being structured into teams with other professionals providing teaching support to students; however, they retained their subject librarian title and job description. Although, this mixing of professionals would still bring challenges and need managing.

6.3.3.5 Supporting new roles and responsibilities vs. supporting core library identity

Altogether, a functional structure supports the library in the development of new roles and responsibilities, which is demonstrated by the tendency for new services being provided by academic libraries to be structured functionally. As previously discussed, partially this is due to new responsibilities not being able to be incorporated into the subject librarian role, but as identified by Hoodless and Pinfield (2018), and confirmed in this research, it also makes these new services more visible to users whilst simultaneously advertising the library's jurisdictional claims to these new areas. This can help an academic library transform its image from what could be deemed to be a persisting traditional image, particularly around collections. Markedly, the combining of functional and subject elements in organisational structures can be interpreted as academic libraries attempting to develop into the ambidextrous organisations that Jantz (2012b, 2015, 2016) advocates for them to become in order to promote innovation by supporting both the exploitation of current services and the exploration of new ones. As Jansen et al. (2009) express structural differentiation, whereby current services are structured separately to new services, can support these conflicting demands and promote ambidexterity, which aligns with the fact most academic libraries are structuring new services into functional roles and teams alongside their existing subject-based librarians. Although, Jantz (2012b), states how "The greatest challenge for academic library leaders" will be in creating the proper balance, and minimizing the inherent conflict between exploratory efforts and the more traditional activities that support existing services" (p. 11).

Significantly, the findings of this research did reveal some concerns regarding the increasing use of functional roles and teams on core library services. To an extent, this appears to be due to budgetary constraints, which are requiring library leaders to make choices as to what to prioritise. As discussed above in Section 6.3.2.3, library leaders have different opinions regarding this, with the differences in opinion observed in this research regarding the extent to which there is a need for librarian involvement in collection management illustrative of this. Nevertheless, this need to expand into new areas is often leading to the reduction in the number of traditional library roles in order to grow new services. This conflict between traditional and new services is also strongly evident in the case study provided by Raju et al. (2018) of the restructuring of the University of Cape Town libraries whereby subject librarians were replaced with functional teams. In their discussion of the restructure, Raju et al. (2018) state that "hard choices had to be made between maintaining traditional services and adopting new ones" (p. 424) and describe "the need to shed or reduce old tasks in order to take on the provision of new services or provide greater support for specific services, e.q. bibliometrics services" (p. 425).

Additionally, where restructures have removed subject librarians and replaced them with functional teams, even if there was no intentional reduction in traditional services due to budgetary restrictions, it was often felt this had occurred. These reductions in traditional services were often perceived to be around named contacts, tailoring of services and the ability to market holistically the full range of library services, as well as other gaps that can emerge due to the complex nature of the subject librarian role and the difficulties involved in separating out the responsibilities of the role. All of these potential reductions in traditional services are discussed above in sections 6.3.3.1, 6.3.3.2 and 6.3.3.3, although another perceived decline in core library services was often around support and knowledge regarding collections. Nevertheless, whist these perceived reductions in core library services were identified as tendencies of functional structures, they were not inevitable.

Yet, significantly, what clearly emerged from this research was, similar to how functional roles can lead to a loss in the professional identity of librarians, as discussed in Section 6.3.3.56.3.3.4; there was the general perception that if subject-based librarians were removed from the organisational structure, this could result in the loss of the identity of the library itself. It was evident from the findings that the use of subject librarians in academic libraries has become assimilated into the norms and traditions of the librarianship profession, and their use in organisational structures provides what DiMaggio and Powell (1983) and Meyer and Rowan (1977) would describe as legitimacy to an academic library and aid its survival as an institution. It is significant that participants from both inside and outside of the librarianship profession questioned what a library was without subject librarians. According to Rogers (2003), one of the five characteristics of innovations that contribute to their rate of adoption is the compatibility with current values and culture of the adopters. Therefore, if a functional structure that does not contain subject-based librarians is considered to be, what Jantz (2017) would describe, as a management innovation then it is perhaps unsurprising that they are still relatively rare in the sector, since they generally conflict with current professional norms. Altogether, it is clear that the normative pressures (DiMaggio & Powell, 1983) of the librarianship profession promote the continuation of subject-based structures.

In addition to subject librarians being strongly associated with the image of academic libraries, as their organisational structures become more functional, it is clear that there is challenge in creating an overall collective identity for the library, this can apply even where libraries have maintained subject librarians. This is connected to the issues regarding the holistic integration of library services that is discussed above in Section 6.3.3.3. As Jantz (2016) states this is the "structural conundrum" (p. 53) of creating ambidextrous organisations, since separate structures are needed to promote knowledge and expertise around new services, however, this limits communication throughout the organisation. Yet, the findings of this research show that there is the potential for the challenge to go beyond communication to the ability to maintain an overall library identity that

unites the functional teams. As Child (1972) states structural differentiation, whilst it can lead to homogeneity within teams, which was observed in the findings of this research, it also leads to a distinct heterogeneity amongst the different teams.

This increasing heterogeneity is significant for the library and its identity because as discussed above in Section 06.3.2.2, many of the new services, and consequently the resulting functional roles and teams, crossover with other professional services in the university, within which many of these services can also be located (Pinfield et al., 2017; Verbaan & Cox, 2014). Attis and Koproske (2013) predicted that in response to the need for academic libraries to undergo a "strategic paradigm shift" and develop a new services, "Traditional organizational boundaries are likely to fade and the word 'library' will cease to adequately describe the suite of both virtual and physical academic support services offered to patrons" (p. 19). Significantly, the increasing use of functional roles and teams facilitate this blurring of boundaries and possible questioning what constitutes a library. There is the potential for staff in libraries working within functional roles to identify more with the other professional services in the university, such as research services or student services, than the library, especially if the staff within these teams do not have a librarianship background, which this research has shown is an increasing trend. There is also the potential that university leadership could question the positioning of these teams within the library and not with these other professional services.

It has long been acknowledged that academic libraries hold a unique and, arguably, valued position within universities, often being referred to as the heart of the university (Gyure, 2008; Housewright, 2009). However, what emerged from this research is that there is a perceived risk associated with the use of functional structures in academic libraries as they have the potential to expose the library and deemphasise this uniqueness within the institution. In many ways, this uniqueness from other professional services within the university is entrenched in the use of subject librarians due the strong relationships with academics they enable and related ability to become

partners in the academic process, which in many ways is related to the normative pressures of the profession previously discussed.

Significantly, two styles of alignment that Pinfield et al. (2017) identified for academic libraries was that of service-provider and partner, and to a larger extent the impact of a functional structure is that promotes the former by supporting the development of "key services and support activities required by users in line with institutional requirements" (p. 6). In contrast, subject structures promote the partnership model of alignment. Altogether, the balancing between functional and subject structures is a result of the conflict libraries are experiencing between the needs of the institution and allegiance to the profession, which has been discussed in the library management literature (Cooper et al., 2022; McNicol, 2005; Wilson & Halpin, 2006).

6.3.3.6 Other contextual factors determining the impact of structures

Despite all of the impacts of both functional and subject structures that are discussed above, it is important to note, that in line with critical realist principles, these are all tendencies of these structures, but they are not inevitable outcomes. In addition, there were common challenges associated with most libraries no matter their structure, most notably silos and communication problems. The results of this research have shown that in accordance with the McKinsey 7s model (Waterman et al., 1980), that changing organisational structures does not necessarily lead to organisational change, and the other elements of the model will also have an influence on the results of the choice of structure, in particularly staff, organisational culture, and the style of leadership.

Additionally, as Waterman et al. (1980) state "Changes in strategy and structure, on the surface, may happen more quickly. But the pace of real change is geared to all seven S's." (p. 26). It was clear from the findings of this research, that particularly when a functional restructure had occurred that had removed subject librarians, because on the whole the staff within the structure

remained the same, the full impact of such a restructure might not be fully realised. For example, sometimes as a result of some restructures professional librarians were ending up in roles they did not want to be in, which was affecting their job satisfaction, and significantly, it has been argued that low job satisfaction can impede the development of an innovative environment (J. Hage & Aiken, 1967). In addition, whilst Hoodless and Pinfield (2018), identified that sometimes a functional restructure was used to instigate a cultural change and change ways of working, there were clear examples of staff reverting back to old roles to a certain extent, in particular around relying on previous subject knowledge. Therefore, the full impact of functional structure may not be known until these staff have left and been replaced, and significantly, in a functional structure, these replacements may not be from a librarianship background.

6.3.4 Impact on librarians and the profession

Most of the impacts that the increasing focus on specialisation and functional teams/roles are having on librarians and librarianship have been alluded to throughout the previous sections of this discussion chapter. However, it is clear that as Mackenzie and Martin (2016b), discussed there is an increasing "diversity of professional roles" (p. 174) emerging in academic libraries and a clear diversification of the profession occurring that is illustrated in the variety of roles and structures that have been observed in the results of this research. In many ways, as discussed throughout this chapter, this is out of necessity as academic libraries expand their roles and responsibilities within universities. However, many professional librarians who participated in this research echoed the concerns that have been expressed by Quinn (2000) and Gremmels (2013), that this is having an impact on the profession and its core values, with many participants also expressing how they felt the librarian skillset was not being valued, particularly in functional structures where subject-based librarians had been removed.

There were also clear concerns expressed regarding the increasing use of functional roles in academic libraries and the resulting impact on career paths for professional librarians. As DiMaggio and Powell (1983) state ""Personnel flows within an organizational field are encouraged by structual homogenization, for example the existence of common career titles and paths...with meanings that are commonly understood" (p. 153). Therefore, it was clear that as structures and roles were becoming more diverse, professional librarians often did not feel their skills were suited to many of the new roles that were being created, and in some cases, they did not understand what some of the roles were. Since subject-based roles are often being reduced in order to increase functional roles, it was felt that roles appropriate for librarians were being restricted.

Altogether, what clearly emerged from this research, which has been alluded to throughout this chapter, is that the increasing use of functional roles and teams in academic libraries is often reducing the prominence and influence of the profession within academic libraries or at least has the potential to do so in the future. A key element of this is the significant reduction in a librarianship qualification being a requirement for working in many library roles, with even subject-based librarian roles now often not having a librarianship qualification as an essential requirement. This is significant because as Jantz (2012b) acknowledges the requirement for professional qualifications is "evidence of a significant normative force" (p. 5). Although, people from outside of the librarianship profession are unlikely to apply for roles that use the title librarian, even if a librarianship qualification is not essential.

Nevertheless, where a library has carried out a restructure around functional teams and subject librarians have been removed, this has the potential to further reduce the prominence of the profession within the library in the future. Whilst professional librarians are generally placed within new functional structure at the moment as a result of restructuring process, when they eventually leave these roles, it is likely that the vacant posts may not be filled by librarians. This has the potential to impact of the normative forces affecting libraries, discussed above in Section 6.3.3.

Although, further research would be required to ascertain if this increased reduction in the number of professional librarians in functional structures will happen. Yet, overall, the increasing use of functional structures and roles in academic libraries appears to be related to the impact of managerialism and has the potential to undermine "the power and status of professional workers" (p. 3) as discussed by Wilkinson et al. (2016).

7. Conclusion

7.1 Introduction

This final chapter brings together all of the findings that have been discussed throughout this thesis to present the conclusions of this research. It beings with an overview of the research, before summarising the key findings that relate to each of the research objectives to demonstrate how the aims of this research have been fulfilled. These findings contribute new practical and theoretical knowledge to a range of different areas. These include library management, the changing role of academic libraries, the evolution of librarianship as a profession, the general management literature regarding the role and choice of formal structures in organisations and research into changes occurring in Higher Education, as well as a methodological contribution, all of which will be explored. This chapter will conclude with proposals for future research and then present recommendations for library directors when reviewing their organisational structures.

7.2 Overview of the research

The aim of this research was to assess the relationship between organisational structural changes and the transformation of the academic library, with a particular emphasis on exploring and explaining how functional teams are being used in university libraries in comparison to subject-based teams to provide academic services, including teaching, learning and research support to users. In doing so, how these changes to structures relate to the relationship of academic libraries

with the wider organisation and the changes occurring in Higher Education, as well as the impact on librarianship as a profession, were investigated.

In order to achieve the aims of this research an exploratory, sequential mixed methods design underpinned by a critical realist philosophical stance was adopted. The initial, qualitative strand consisted of a multiple, comparative case study of six academic libraries in the UK, with a range of organisational structures along the subject-functional spectrum. At each case study site, semi-structured interviews and focus groups were conducted and documents were collected, with the data being subjected to a thematic analysis using NVivo. The themes that emerged from this, which were discussed in Chapter 4, were then used inform the subsequent quantitative stage of the research. This stage consisted of a survey design with a questionnaire completed by library directors in the UK, the results of which are presented in Chapter 5. The final stage of the research was the integration of the findings from both the qualitative and quantitative stages, which is presented in Chapter 6 along with along with the interpretation of the findings and discussion of the integrated results in relation to the research objectives and the literature.

Overall, despite organisations within the same field often resembling each other in terms of organisational structure, the results of this research show that the structures of academic libraries in the UK are diverging as subject and functional elements are being combined to varying extents. This is occurring because of differences in the remits of individual academic libraries, with no consensus regarding the future role of libraries within universities and the positioning of jurisdictional boundaries emerging. In addition, the differing ways library leaders are interpreting and prioritising the paradoxical pressures academic libraries are facing is also influencing structural choices, with subject and functional structures in many ways emblematic of the conflicting advice, opinions and pressures that are prolific in the sector and in particular the conflict between professionalism and managerial agendas within higher education. Altogether, functional structures are linked to the diversification of the profession, but also have the potential to reduce the influence of the

profession within the library, and impact on professional identity. Below the finding of this research are summarised in relation to each of the research objectives in order to demonstrate how the aims of this research have been fulfilled.

7.3 Summary of findings

7.3.1 Objective 1 - To explore trends in the use of functional and subject teams in academic

libraries in the UK

The findings of this research show that the organisational structures of academic libraries are changing in response to the dynamic environment in which they are operating. Whilst Corrall (2014) identified that the academic services element of academic libraries are generally structured around subjects, since then there has been an increasing trend towards the incorporation of functional elements and, for the vast majority of academic libraries, to describe this component of their structures as exclusively subject-based would now be an oversimplification. Significantly, the majority of academic services structures still have a strong subject element in the form of subject-based librarians, however, what Corrall (2014) identified as an emerging trend of using functional specialists to support subject-based librarians is now the dominant model that has been adopted in the UK. Furthermore, whilst still in the minority, there has been an increase in the number of libraries in the UK that have restructured completely around functional teams and removed their subject-based librarians since Corrall (2014) identified the UML's functional structure as unique in the UK. Although, it is noteworthy, that even where such functional restructures have taken place, some form of subject-alignment usual does exist, either formally or informally.

Significantly, another key finding of this research is that as academic libraries increase the use of functional roles and teams within their structures this is resulting in a reduction in the prominence of subject-based librarians in the delivery of the academic services provided by libraries to their institutions. This is because often these new functional roles are not just administrative or technical roles, but can have a strong engagement and sometimes even strategic focus. Additionally, a clear trend emerged in the findings of addressing the widely acknowledged challenges of subject librarians by stripping back the role to focus on engagement and teaching and learning support, which in many ways is making it a more functional role in itself.

Altogether, the findings of this research support the conclusions of Hoodless & Pinfield (2018) in that academic libraries are now creating organisational structures that combine both subject and functional elements to varying extents to provide academic services. This is resulting in structures that exists along a subject-functional spectrum, with the baseline now generally being that academic services are provided by subject librarians who are supported by at the least a functional research support team/role. However, a key finding of this research is that beyond this baseline structure there are a multitude of possibilities for how library responsibilities can be compartmentalised and how subject and functional elements can be combined, with the organisational structures of academic services becoming a lot more complicated and diversifying as a variety of new roles emerge. To an extent, what has been observed in the results of this research is a trend towards the divergence of academic library structures as predicted by the likes of Lankes (2014), Gremmels (2013), Schonfeld (2016) and Dempsey and Malpas (2018), rather than the homogeneity institutions in the same field are often expected to exhibit (DiMaggio & Powell, 1983; Meyer & Rowan, 1977).

7.3.2 Objective 2 - To identify the factors influencing choices regarding organisational structures and how they relate to the developing role of academic libraries and overall changes occurring in Higher Education

It was clear from the results of this research, and the findings of Hoodless and Pinfield (2018), that academic libraries are reacting to a variety of opposing pressures that are driving them in one direction towards implementing functional structures, whilst simultaneously also driving them towards maintaining subject structures. Consequently, it is the contextual factors unique to each academic library that are instrumental in influencing how academic libraries are responding to these opposing drivers and the decisions being made regarding organisational structures, with this research identifying these key contextual factors and how they are impacting on structural choice.

Firstly, there is the key influence of the wider context of the parent institution to which academic libraries have to align in order to remain relevant. However, whilst some have predicted the organisation of academic libraries would diverge in accordance with the mission group of their parent institution (Dempsey & Malpas, 2018; Lankes, 2014; Malpas et al., 2018; Schonfeld, 2016), the findings of this research do not support this. Significantly, instead, it is the differing ways and extents to which academic libraries are expanding their remits beyond core activities that is resulting in the diversity of organisational structures.

This research has shown that there is a wide range of new responsibilities and services that can be placed within the remit of academic libraries, however, many of these services crossover with other university departments. The decisions regarding which services are placed within the remit of an academic library are strongly influenced by the wider institutional context, in particular how university leadership perceive the role and position of the library within the university, the library's relationship with other professional service departments and the resulting negotiations over

jurisdictional boundaries. Consequently, overall, the diversification of the organisational structures of academic libraries is linked to the lack of consensus regarding the future role of libraries within universities and the blurring of professional boundaries that is occurring in Higher Education, which has been discussed by Whitchurch (2006, 2008, 2013) in the literature.

As the remit of an academic library expands, there is a clear need to rethink the organisational structure, and the more services additional to core library services that an academic library acquires, the more likely it is that these will become functional elements in the library structure. This is because subject-based librarians are generally already overloaded with responsibilities and there is a reluctance amongst university leaders across the sector to increase funding for these roles to enable them to grow their capacity to take on new responsibilities. In addition, as the responsibilities of an academic library expand and become more complex, so do their structures and the number of ways that responsibilities can be divided up increases, contributing further to the diversity of structures.

Nevertheless, in relation to how the expanding and diversifying remit of academic libraries specifically influences decisions regarding the continuation of subject-based librarians in library structures, an influential factor is when a library expands their student support services beyond information literacy teaching. This is particularly the case when other teams providing teaching support to students are relocated into the library as this can lead to a questioning of the boundaries between these teams and subject librarians due to the similarities in the focus on developing student skills. Therefore, underlying this growing trend of functional structures, particularly where subject librarians have been removed, is the impact of marketisation policies on Higher Education, which is creating a drive to unify student support in the university, with functional teams being used by some libraries to claim jurisdiction of this area.

Although, despite this centrality of expanding the teaching and learning support provided by the library to decisions regarding the use of functional structures, it is important to note that it is not

inevitable that when the library's remit expands to include areas such as academic skills support that the subject librarian role will be abandoned. As well as the importance of alignment to the wider institutional context, the internal library context is also an important factor with regard to the choice of organisational structure and the observed divergence of organisational structures in the sector. These internal factors include resource limitations, staff, the library building and its location on campus, and the library leadership, which can all affect the ability of an academic library to strategically align and expand its services, and impact on the options available for organisational structures.

However, the key factor that emerged from this research was the influence of the library leadership and the way they interpret, and even influence, the external and internal environments in which academic libraries are operating, in accordance with Child's (1972) theory of 'strategic choice'. Significantly, this research showed that subject and functional structures have opposing benefits, therefore, the value individual library leaders place on these opposing benefits, and their personal attitudes towards conflicting pressures, in particular marketisation and professionalism, is strongly influencing the choice of organisational structure and is contributing to the variations in structures being observed in the sector. Altogether, the diversity of structures that are emerging along the subject-functional spectrum to an extent is emblematic of the conflicting advice, opinions and pressures that are prolific in the sector.

7.3.3 Objective 3 - To assess the attitudes of library staff and senior library managers around the impact of subject and functional structures on the library and ways of working and how these perceived impacts relate to structural choices

In terms of the impact that functional and subject structures have on the library and ways of working, it was evident that they were perceived by the participants in this research to provide opposing benefits to the library. Although, it is important to note, that in line with critical realist principles, these are all tendencies but not inevitable outcomes of these structures, and the other elements of the McKinsey 7s model (Waterman et al., 1980) have an impact on these outcomes.

Nevertheless, the impacts a functional structure are perceived to have on academic libraries include increased empowerment and ownership across all library roles; consistency and efficiency of services; increased focus and specialisation; the ability to bring in new skills from outside of the librarianship profession and integrate different professionals; and supporting the library to provide new roles and responsibilities. Significantly, most of these impacts relate to external coercive pressures around the marketisation of higher education, the influence of new public management practices in the public sector and the associated pressure for academic libraries to innovate. In contrast, the impacts a subject-based structure are perceived to have on academic libraries revolve around the ability to add value to the services the library provides, predominantly through the ability to build strong relationships with academics, tailor and personalise services and market services holistically. However, it is also strongly perceived that subject structures promote the integration of library activities and support both the professional identity of librarians as well as the core identity of the library. Therefore, the impacts and benefits of subject-based structures relate to normative pressures from the librarianship profession.

Overall, the impact of a functional structure is that it can move a library away from a "bureaucratic-professional' model associated with traditional subject-based structures, which is based on the norms and values of the librarianship profession, and moves it towards a 'consumer-managerial' model, which Nicholson (2015) sees as a trend throughout Higher Education due to marketisation. In many ways, a functional structure aligns the library as a service-provider within the institution, whilst a subject structure promotes it as a partner to academics and the academic

process, which Pinfield et al. (2017) identifies as two means of alignment for academic libraries that are not mutually exclusive. Therefore, academic libraries are often attempting to balance both subject and functional elements in their structures to get the benefits of both approaches and balance the needs of the institution with needs of the profession, which has been by Wilson and Halpin (2006).

7.3.4 Objective 4 - To explore the impact of specialisation and the increasing use of

functional teams/roles on librarians and the connection to changes occurring to

librarianship as a profession

It is clear that as Mackenzie and Martin (2016b), discussed there is an increasing "diversity of professional roles" (p. 174) emerging in academic libraries and a clear diversification of the profession occurring that is illustrated in the variety of roles and structures that have been observed in the results of this research. Many professional librarians who participated in this research echoed the concerns that have been expressed by Quinn (2000) and Gremmels (2013), that this is having an impact on the profession and its core values. Many participants also expressed how in functional teams and roles they felt the librarian skillset was not being valued and there was often a distinct loss of professional identity for some librarians, since many librarians strongly associate their professional identity with subject librarian roles. Additionally, there were clear concerns expressed regarding the increasing use of functional roles in academic libraries and the resulting impact on career paths for professional librarians, with many professional librarians not feeling their skills were suited to many of the new roles that were being created and their career options were being reduced.

Altogether, what clearly emerged from this research is that the increasing use of functional roles and teams in academic libraries is often reducing the prominence and influence of the profession within academic libraries or at least has the potential to do so in the future. A key element of this is the significant reduction in a librarianship qualification being a requirement for working in many library roles, with even subject-based librarian roles now often not having a librarianship qualification as an essential requirement, which has the potential to reduce the normative pressures of the profession on academic libraries. Significantly, where a library has carried out a restructure around functional teams and subject librarians have been removed, this has the potential to further reduce the prominence of the profession within the library in the future, as there is more chance of these roles being replaced with staff from outside of the librarianship profession. Overall, the increasing use of functional structures and roles in academic libraries appears to be related to the impact of managerialism and has the potential to undermine "the power and status of professional workers" (Wilkinson et al., 2016, p. 3)

7.4 Contribution to knowledge

Due to the interdisciplinary nature of the research, the findings of this study make original and significant theoretical, practical and methodological contributions in a range of areas. These are summarised below:

1. Contributions to library management practice and the LIS literature

The primary contribution of this research is to library management theory and practice, since it increases the understanding and knowledge around the shifting role and transformation of academic libraries in relation to their institutions and the changing networked environment, by focusing attention on how this has manifested in changes to organisational structures and librarian roles. This study builds on the on the previous research carried out by Hoodless and Pinfield (2018),

as well as other key studies, such as that carried out by Corrall (2014), by providing an in-depth study of how the organisational structures of academic libraries are changing and in particular contributes quantitative data to complement the previous qualitative studies. Whilst this study has a strong focus on investigating the perspective of library directors, it does also provides an original contribution by incorporating the perspectives of professional staff as well.

As well as a theoretical contribution to the LIS field, the findings of this research could provide a significant contribution to professional practice, as they can be used by library leaders to inform their decision-making regarding changes being made to the organisational structures of academic libraries. In line with critical realist principles and contingency theory (Donaldson, 2001) from the management literature, the findings of this research do not provide prescriptive advice regarding how academic libraries should be structured, but instead highlight the complex factors that need to be considered and reflected upon to ensure organisational structures are suitably designed for the individual academic library. The findings of this research identify the benefits and challenges associated with functional and subject-based structures and highlights the complex contextual factors that could both affect the choice of structure for their library and influence the success of their chosen structures. Recommendations for library directors that have emerged from the research can be found in Section 7.6.

Furthermore, this potential contribution to practice could extend beyond academic library leaders in the UK, since there is evidence in the literature of academic libraries in other countries undergoing similar changes to organisational structures, particularly examples of the increasing use of functional teams and questioning of subject-based models. In addition, the results could also be of interest to professional librarians working in academic libraries to gain a better understanding of the changes occurring to their profession.

2. Contributions to management literature and the role of organisational structures

The contributions of this research extend beyond the LIS field, particularly into the management literature and theories regarding organisational structures and organisational change. It provides a case study of a non-profit organisation that is part of a larger, parent organisation, which is unusual in the literature, and details the complex range of factors involved in designing and implementing organisational structures. In particular, it provides support for Child's (1972) theory of strategic choice, as well as contributing to the debate regarding institutional change within an organisational field.

3. Contributions to Higher Education research

The results of this study additionally contribute to the field of Higher Education research, particularly the impact of marketisation policies and the associated new public management agendas on the changing and diversifying roles and identities of professional staff working within universities in the UK, which is the focus of research conducted by Whitchurch (2006, 2008, 2013). This study contributes to this field by presenting a case study of a professional group within universities and demonstrates how the blurring of boundaries is affecting their role and position within universities. It also contributes to the debate over the impact of managerialism on professional freedom and power within higher education (Nicholson, 2015; Wilkinson et al., 2016), by providing an example of how the prominence and influence of professional librarians are being reduced within academic libraries in the UK.

4. Methodological contribution

As described in the Methodology section of this thesis, it has been argued that a critical realist approach to mixed methods suits an explanatory, sequential mixed methods design, whereby quantitative research methods are used to identify patterns and trends before qualitative methods are employed to uncover the mechanisms causing these trends (Zachariadis et al., 2013). This is

because in critical realism, generalisations that are typically associated with exploratory mixed methods designs, are not considered to be meaningful in critical realism due to the complex, open social systems, (Zachariadis et al., 2013). However, this study contributes an example of how an exploratory, sequential mixed methods study can be designed using critical realist principles by focusing on the ability of the quantitative strand of the research to complement and expand the results of the initial qualitative stage, rather than generalise the findings. This is done by using the quantitative strand to explore patterns of divergence, as well as similarity, with the results of qualitative strand, as well as including some qualitative, open-ended questions in the questionnaire to allow participants the opportunity to provide contextual information, which is important in critical realist studies. Additionally, this research provides an example of a study conducted in the field of library studies from a critical realist perspective, for which there are few example, with most in the LIS literature coming from information behaviour and information systems research (Mingers, 2004; Wikgren, 2006; Zachariadis et al., 2013).

7.5 Recommendations for future research

The following are recommendations for future research based on the findings of this study:

1. One of the main limitations of this study is that it is restricted geographically in its scope to changes that are happening to the organisational structures of academic libraries in the UK. The initial plan for this research was to conduct a much larger survey that would have been sent out to academic libraries in other countries in order to be able to compare the trends occurring in the UK with those happening elsewhere. However, it became clear that this was too ambitious a task for the current research project due to the complexity of the phenomenon being investigated and the decision was made that the UK should be the focus, but it would be valuable for similar studies to be conducted in other countries. It would be particularly

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interesting to investigate the changes that are happening in the United States as commentators have suggested that academic libraries there will diverge in line with the type of university they are a part of (Dempsey & Malpas, 2018; Malpas et al., 2018; Schonfeld, 2016). Significantly, this research showed this was not occurring in the UK, so it would be interesting to find out if it is a trend in the US or not. Additionally, it would also be beneficial to extend this research to countries where the trend towards functional structures does not appear to be occurring.

- 2. It is clear from the results of this research and the literature review that academic libraries are in a current period of transformation. Therefore, a longitudinal approach could be adopted to investigate whether the trends observed in the results of this research around the divergence of the roles and responsibilities of academic libraries and the resulting diversity of organisational structures and roles continue. This could also serve as a longitudinal study of the development of the librarianship profession and its changing jurisdictional boundaries. In particular, it would also be beneficial to research if the prominence of professional librarians within academic libraries reduces as they can increasingly be replaced with staff from other professions.
- 3. Since a key finding of this research was the importance of the wider institutional context on the decisions being made regarding the role of the library and the resulting organisational structures, in particular the variations in the positioning of jurisdictional boundaries across the sector. Future research could investigate this wider institutional context, specifically the perspectives of stakeholder outside of the library concerning their views on the future role of academic libraries and their services. Some research has been conducted regarding the views of university leadership by Baker and Allden (2017), but the focus was specifically on library leadership, and future research would benefit from a focus on obtaining their views regarding library organisational structures, library roles and responsibilities and jurisdictional boundaries. In addition, an interesting perspective would also be the other professional services managers

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and staff with whom the library is often in competition with in regards to jurisdictional boundaries.

7.6 Recommendations for practice

The following recommendations for library directors emerged from the results of this research:

- Due to the divergence of the roles and responsibilities of academic libraries that has been observed in the results of this research, library directors cannot just copy the structures of other university libraries. Instead, there needs to be strong alignment to the parent institution and its needs.
- 2. There are risks associated with both functional and subject approaches to structuring academic libraries, of which library directors need to be aware when designing organisational structures.
- 3. Library directors need to work closely with other professional services in the institution so that jurisdictional boundaries are clear.
- 4. When looking to change the organisational structure of the library it is important that whilst staff are challenged to change mindsets, they also need to be supported through these changes, which have the potential to impact on their professional identity and job satisfaction. Where staff end up in new roles, they need to be provided with training opportunities.
- 5. The results of this research have shown that the roles and responsibilities of academic libraries are growing more complex, and even where subject-based librarians are remaining there is an

increasing need to split up some responsibilities into functional roles. Therefore, it is important as structures become more complex and contain a diversity of roles that the whole range of services and responsibilities of the library are clearly mapped to each role clearly to ensure that no gaps appear in library services and there is no duplication of effort.

6. Additionally, as academic libraries and their structures grow more complex, this research has shown that there is an increasing need for library directors to improve coordination and communication across teams and roles in order to avoid the loss of the integration of library services, which is a risk as the library's remit grows. This is also needed in order to try to maintain some form of collective library identity between staff that may have a wide range of backgrounds, roles and responsibilities.

8. <u>References</u>

- Abbott, A. (1988). *The system of professions: an essay on the division of expert labor*. Chicago: The University of Chicago Press.
- Abbott, A. (1998). Professionalism and the future of librarianship. *Library Trends*, *46*(3), 430–443. Retrieved from https://search-proquestcom.sheffield.idm.oclc.org/docview/220452054/fulltextPDF/921A13CA2454076PQ/1?accounti d=13828
- Ackroyd, S. (2009). Research designs for Realist research. In D. Buchanan & A. Bryman (Eds.), *The SAGE handbook of organizational research methods* (pp. 532–548). Los Angeles: SAGE.
- Ackroyd, S., & Karlsson, J. C. (2014). Critical Realism, research techniques, and research designs. In P.
 K. Edwards, J. O'Mahoney, & S. Vincent (Eds.), *Studying organizations using Critical Realism: a practical guide* (pp. 21–45). Oxford: Oxford University Press.
 https://doi.org/10.1093/acprof:oso/9780199665525.003.0002 Abstract
- Acocella, I. (2012). The focus groups in social research: advantages and disadvantages. *Quality and Quantity*, *46*(4), 1125–1136. https://doi.org/10.1007/s11135-011-9600-4
- ACRL. (2014). Top trends in academic libraries: a review of the trends and issues affecting academic libraries in higher education. *College & Research Libraries News*, 75(6), 294–302.
- ACRL. (2016). 2016 top trends in academic libraries: a review of the trends and issues affecting academic libraries in higher education. *College & Research Libraries News*, 77(6), 274–281.
- Adams Becker, S., Brown, M., Dahlstrom, E., Davis, A., DePaul, K., Diaz, V., & Pomerantz, J. (2018). *Horizon Report: 2018 Higher Education Edition*. Louisville: EDUCAUSE. Retrieved from https://library.educause.edu/~/media/files/library/2018/8/2018horizonreport.pdf

- Adams Becker, S., Cummins, M., Davis, A., Freeman, A., Giesinger Hall, C., Ananthanarayanan, V., ... Wolfson, N. (2017). *Horizon Report : 2017 Library Edition*. Austin, Texas. Retrieved from http://cdn.nmc.org/media/2017-nmc-horizon-report-library-EN.pdf
- Adams Becker, S., Cummins, M., Davis, A., Freeman, A., Hall Giesinger, C., & Ananthanarayanan, V.
 (2017). *Horizon Report: 2017 Higher Education Edition*. Austin, Texas. Retrieved from http://cdn.nmc.org/media/2017-nmc-horizon-report-he-EN.pdf
- Alexander, B., Ashford-Rowe, K., Barajas-Murphy, N., Dobbin, G., Knott, J., McCormack, M., ... Weber, N. (2019). *Educause Horizon report: 2019 Higher Education edition*. Louisville. Retrieved from https://library.educause.edu/resources/2019/4/2019-horizon-report
- Allmark, P., & Machaczek, K. (2018). Realism and Pragmatism in a mixed methods study. *Journal of Advanced Nursing*, (January), 1–9. https://doi.org/10.1111/jan.13523
- Anand, N., & Daft, R. L. (2007). What is the right organization design? *Organizational Dynamics*, *36*(4), 329–344. https://doi.org/10.1016/J.ORGDYN.2007.06.001
- Anderson, R. (2013). *Can't buy us love: the declining importance of library books and the rising importance of special collections*. Retrieved from http://www.sr.ithaka.org/wp-content/uploads/2013/08/SR_BriefingPaper_Anderson.pdf
- Andrade, R., & Zaghloul, R. (2010). Restructuring liaison librarian teams at the University of Arizona Libraries, 2007-2009. *New Library World*, 111(7/8), 273–286. https://doi.org/10.1108/03074801011059911
- Appleton, L., & Abernethy, P. (2013). We said...we did!: A partnership approach to developing library and student support services. *New Review of Academic Librarianship*, *19*(2), 208–220. https://doi.org/10.1080/13614533.2013.800766
- Arts Council England. (2013). *The library of the future*. London. Retrieved from http://www.artscouncil.org.uk/library-future

- ARUP. (2015). *Future libraries: workshops summary and emerging insights*. Retrieved from https://www.arup.com/publications/research/section/future-libraries
- Ashcroft, T., Bird, L., Bull, S., Harper, P., James, A. M., & Robertson, C. (2020). Engagement with impact: enhancing the student learning experience during year one of a functional library model. *New Review of Academic Librarianship*, *26*(1), 31–55. https://doi.org/10.1080/13614533.2019.1630450
- Ashkenas, R., Ulrich, D., Jick, T., & Kerr, S. (2002). *The boundaryless organization: breaking the chains of organizational structure*. San Francisco: Jossey-Bass.
- Astbury, B. (2018). Making claims using realist methods. In *Doing realist research* (pp. 59–77). Los Angeles: SAGE.
- Attis, D., & Koproske, C. (2013). Thirty trends shaping the future of academic libraries. *Learned Publishing*, *26*(1), 18–23. https://doi.org/10.1087/20130104
- Auckland, M. (2012). *Re-skilling for research: an investigation into the roles and skills of subject librarians required to effectively support the evolving needs of researchers*. Retrieved from http://www.rluk.ac.uk/wp-content/uploads/2014/02/RLUK-Re-skilling.pdf
- Ayres, L. (2008). Thematic coding and analysis. In L. R. Given (Ed.), *The SAGE encyclopedia of qualitative research methods* (pp. 868–869). Thousand Oaks: SAGE. https://doi.org/10.4135/9781412963909
- Bains, S. (2013). Teaching "old" librarians new tricks. *SCONUL Focus*, *58*, 8–11. Retrieved from https://www.sconul.ac.uk/publication/teaching-'old'-librarians-new-tricks
- Bains, S. (2014). Manchester's new order: transforming the academic library support model. Retrieved February 7, 2018, from http://www.rluk.ac.uk/news/manchestersneworder/

Baker, D. (2016). Making sure things can never be the same again: innovation in library and

information services. 1–44. https://doi.org/http://dx.doi.org/10.1108/MRR-09-2015-0216

- Baker, D., & Allden, A. (2017). *Leading libraries: the view from above*. London. Retrieved from https://www.sconul.ac.uk/publication/the-view-from-above
- Banfield, L., & Petropoulos, J. A. (2017). Re-visioning a library liaison program in light of external forces and internal pressures. *Journal of Library Administration*, *57*(8), 827–845. https://doi.org/10.1080/01930826.2017.1367250
- Barile, S., Saviano, M., & Simone, C. (2015). Service economy, knowledge, and the need for T-shaped innovators. *World Wide Web*, *18*(4), 1177–1197. https://doi.org/10.1007/s11280-014-0305-1
- Barnett, R. (2011). The marketised university: defending the indefensible. In M. Molesworth, R. Scullion, & E. Nixon (Eds.), *The marketisation of higher education and the student as consumer* (pp. 39–51). London: Routledge.
- Bass, R., & Slowe, S. (2018). Supporting Open Access at Kent: new staff roles. *Publications*, 6(17). https://doi.org/10.3390/publications6020017
- Bazeley, P. (2009). Analysing qualitative data: more than indentifying themes. *Malaysian Journal of Qualitative Research*, *2*(9), 6–22. https://doi.org/10.1017/CBO9781107415324.004

Bazeley, P. (2013). *Qualitative data analysis: practical strategies*. London: SAGE.

- BBC News. (2016). Libraries lose a quarter of staff as hundreds close. Retrieved January 26, 2018, from BBC News website: http://www.bbc.co.uk/news/uk-england-35707956
- Belger, J., & Crossley, J. (2017). Supporting research staff and post- graduates at the University of the West of England, Bristol: The growth of library research support. SCONUL Focus, 69, 5–7.
 Retrieved from http://eprints.uwe.ac.uk/32511
- Bell, S., & Shank, J. (2004). The blended librarian: a blueprint for redefining the teaching and learning role of academic librarians. *College & Research Libraries News*, *5*(3), 372–375.

https://doi.org/10.1080/15228950903054054

- Bennett, S. (2009). Libraries and learning: history of paradigm change. *Portal: Libraries and the Academy*, *9*(2), 181–197. https://doi.org/10.1353/pla.0.0049
- Berman, E. A. (2017). An exploratory sequential mixed methods approach to understanding researchers' data management practices at UVM: integrated findings to develop research data services. *Journal of EScience Librarianship*, *6*(61). https://doi.org/10.7191/jeslib.2017.1104
- Berry, J. N. (2002). Arizona's new model. *Library Journal*, *127*(18), 40–42. Retrieved from https://web-p-ebscohost-com.sheffield.idm.oclc.org/ehost/detail/detail?vid=3&sid=fcd3960eecdd-4945-8720-

5b270b063c0c%40redis&bdata=JnNpdGU9ZWhvc3QtbGI2ZQ%3D%3D#AN=7712856&db=buh

Bhaskar, R. (1975). A realist theory of science. London: Verso.

- Biddiscombe, R. (2002). Learning support professionals: the changing role of subject specialists in UK academic libraries. *Program*, *36*(4), 228–235. https://doi.org/10.1108/00330330210447190
- Biesta, G. (2010). Pragmatism and the philosophical foundations of mixed methods research. In A.
 Tashakkori & C. Teddlie (Eds.), SAGE Handbook of Mixed Methods in Social & Behavioral Research (2nd ed., pp. 95–118). Thousand Oaks: SAGE.
 https://doi.org/10.4135/9781506335193
- Blau, P. M., & Scott, W. R. (1962). *Formal organizations: a comparative approach*. San Francisco: Chandler.
- Boddy, J., Neumann, T., Jennings, S., Morrow, V., Alderson, P., Rees, R., & Gibson, W. (n.d.). Limits of confidentiality: professional and elite interviews. Retrieved April 18, 2018, from The Research Ethics Guidebook website: http://www.ethicsguidebook.ac.uk/Limits-of-confidentiality-eliteinterviews-232

- Bordeianu, S., Lewis, L. K., & Wilkinson, F. C. (1998). Merging the acquisitions and serials department at the University of New Mexico: a case study. *Library Acquisitions: Practice & Theory*, *22*(3), 259–270. https://doi.org/10.1016/S0364-6408(98)00080-5
- Bowen, G. A. (2009). Document analysis as a qualitative research method. *Qualitative Research Journal*, *9*(2), 27–40. https://doi.org/10.3316/QRJ0902027
- Bradbury, K., & Weightman, A. (2010). Research support at Cardiff University Library. *SCONUL Focus*, *50*, 65–70. Retrieved from https://www.sconul.ac.uk/sites/default/files/documents/19_2.pdf
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*. https://doi.org/10.1191/1478088706qp063oa
- Brewerton, A. (2011). "... and any other duties deemed necessary:" an analysis of subject librarian job descriptions. *SCONUL Focus*, *51*, 60–67. Retrieved from https://www.sconul.ac.uk/sites/default/files/documents/18_2.pdf
- Brewerton, A. (2012). Re-skilling for research: investigating the needs of researchers and how library staff can best support them. *New Review of Academic Librarianship*, *18*(1), 96–110. https://doi.org/10.1080/13614533.2012.665718
- Briggs, S. (2018). Moving from Learning Developers to Learning Development Practitioners. *Journal of Pedagogic Development*, 8(3), 1–7. Retrieved from https://uobrep.openrepository.com/bitstream/handle/10547/622923/474-1224-1-SM.pdf?sequence=1&isAllowed=y
- Brodie, M. (2012). Building a sustainable library at Macquarie University. *Australian Academic & Research Libraries*, *43*(1), 4–16. https://doi.org/10.1080/00048623.2012.10700619
- Brown, A., & Roberts, J. M. (2014). An appraisal of the contribution of critical realism to qualitative and quantitative research methodology. In P. K. Edwards, J. O'Mahoney, & S. Vincent (Eds.), *Studying organizations using Critical Realism: a practical guide* (pp. 300–317). Oxford: Oxford

University Press.

- Brown, J. M., & Tucker, C. (2013). Expanding library support of faculty research: exploring readiness. *Portal: Libraries and the Academy*, *13*(3), 283–299. https://doi.org/10.1353/pla.2013.0019
- Brown, M., McCormack, M., Reeves, J., Brooks, D. C., & Grajek, S. (2020). 2020 EDUCAUSE Horizon Report: teaching and learning edition. In *EDUCAUSE Review*. Retrieved from https://library.educause.edu/resources/2020/3/2020-educause-horizon-report-teaching-andlearning-edition
- Brown, R. (2011). The march of the market. In M. Molesworth, R. Scullion, & E. Nixon (Eds.), *The marketisation of higher education and the student as consumer* (pp. 11–22). London: Routledge.
- Brown, R. (2015). The marketisation of higher education: issues and ironies. *New Vistas*, *1*(1), 4–9. https://doi.org/doi:10.4324/9780203842829
- Brown, R., & Carasso, H. (2013). *Everything for sale? The marketisation of UK higher education*. London: Routledge.
- Brown, S., Alvey, E., Danilova, E., Morgan, H., & Thomas, A. (2018). Evolution of research support services at an academic library: specialist knowledge linked by core infrastructure. *New Review of Academic Librarianship*, *24*(3–4), 339–350. https://doi.org/10.1080/13614533.2018.1473259
- Brundy, C. (2015). Academic libraries and innovation: a literature review. *Journal of Library Innovation*, *6*(1), 22–39. Retrieved from https://www.proquest.com/scholarlyjournals/academic-libraries-innovation-literature-review/docview/1693621063/se-2
- Bryman, A. (2006). Integrating quantitative and qualitative research: how is it done? *Qualitative Research*, *6*(1), 97–113. https://doi.org/10.1177/1468794106058877

Bryman, A. (2016). Social research methods (5th ed.). Oxford: Oxford University Press.

Bulpitt (ed.), G. (2012). *Leading the student experience: super-convergence of organisation, structure and business processes*. London. Retrieved from https://www.advance-he.ac.uk/knowledge-hub/leading-student-experience-super-convergence-organisation-structure-and-business

Burns, T., & Stalker, G. M. (1961). The management of innovation. London: Tavistock.

- Cameron, K. S., & Quinn, R. E. (2011). *Diagnosing and changing organizational culture: based on the Competing Values Framework* (3rd ed.). San Francisco: John Wiley & Sons.
- Carlsson, S. A. (2003). Advancing information systems evaluation (research): a Critical Realist approach. *Electronic Journal of Information Systems Evaluation*, *6*(2), 11–20. Retrieved from https://pdfs.semanticscholar.org/6a08/55ca500b82a3ffd14a590bb9a737224baeef.pdf
- Carpenter, C. (2007). The organisational structures used by British university library and informational services (LIS) to deliver subject support and academic liaison (The University of Sheffield). The University of Sheffield. Retrieved from http://dagda.shef.ac.uk/dispub/dissertations/2006-07/External/Carpenter_Charles_MALib.pdf
- Cassell, C. (2009). Interviews in organizational research. In D. Buchanan & A. Bryman (Eds.), *The SAGE handbook of organizational research methods* (pp. 500–515). Los Angeles: SAGE.

Castells, M. (2010). The rise of the network society (2nd, Ed.). Chichester: Wiley-Blackwell.

- Champieux, R., Jackson, M., & Carrico, S. (2008). Implementing change and reorganization in the acquisitions departments at the University of Alabama and the University of Florida. *The Bottom Line*, *21*(4), 113–121. https://doi.org/10.1108/MBE-09-2016-0047
- Chandler, A. D. (1962). *Strategy and structure: chapters in the history of the industrial enterprise*. Cambridge, Mass.: The M.I.T. Press.
- Chen-Chi, C., & Cheng-Chieh, W. (2013). Multilevel analysis of work context and social support climate in libraries. *Aslib Proceedings: New Information Perspectives*, *65*(6), 644–658.

https://doi.org/10.1108/AP-05-2012-0051

Child, J. (1972). Organizational, structure, environment and performance: the role of strategic choice. *Sociology*, *6*(1), 1–22. https://doi.org/10.1177/003803857200600101

Child, J. (1988). Organization: A guide to problems and practice (2nd ed.). London: Paul Chapman.

- Church-Duran, J. (2017). Distinctive roles: engagement, innovation, and the liaison model. *Portal: Libraries and the Academy*, *17*(2), 257–271. https://doi.org/10.1353/pla.2017.0015
- Clay, D. (2016). Building scalable and sustaining services for researchers. In A. Mackenzie & L. Martin (Eds.), *Developing digital scholarship: emerging practices in academic libraries* (pp. 121–138).
 London: Facet.
- Codling, A., & Meek, V. L. (2006). Twelve propositions on diversity in higher dducation. *Higher Education Management and Policy*, *18*(3), 1–24. https://doi.org/10.1787/hemp-v18-art17-en
- Coffey, A. (2013). Analysing Documents. In *The SAGE handbook of qualitative data analysis* (pp. 367–379). London: SAGE. https://doi.org/10.4135/9781446282243
- Collier, M. (2005). Convergence in Europe outside the United Kingdom. In T. Hanson (Ed.), *Managing* academic support services in universities: the convergence experience (pp. 181–201). London: Facet.

Colucci, E. (2007). "Focus groups can be fun": the use of activity-oriented questions in focus group discussions. *Qualitative Health Research*, *17*(10), 1422–1433. https://doi.org/10.1177/1049732307308129

Confederation of British Industries (CBI). (2017). Helping the UK Thrive: CBI/Pearson Education and Skills Survey 2017. In *CBI/Pearson Education and Skills Survey Report*. Retrieved from www.pearson.com.

Connaway, L. S. (2013). Meeting the expectations of the community: the engagement-centered

library. In J. Janes (Ed.), *Library 2020: today's leading visionaries describe tomorrow's library* (pp. 83–87). Lanham, Maryland: The Scarecrow Press. Retrieved from http://www.oclc.org/

- Connaway, L. S. (2015). The Library in the life of the user: engaging with people where they live and learn. Dublin, Ohio. Retrieved from http://www.oclc.org/content/dam/research/publications/2015/oclcresearch-library-in-life-ofuser.pdf
- Connaway, L. S., & Dickey, T. J. (2010). The digital information seeker: report of findings from selected OCLC, RIN and JISC user behaviour projects. Retrieved from https://www.webarchive.org.uk/wayback/archive/20140615023510/http://www.jisc.ac.uk/me dia/documents/publications/reports/2010/digitalinformationseekerreport.pdf
- Connaway, L. S., Harvey, W., Kitzie, V., & Mikitish, S. (2017). *Academic library impact: improving practice and essential areas to research*. Chicago. Retrieved from http://www.ala.org/acrl/sites/ala.org.acrl/files/content/publications/whitepapers/academiclib. pdf
- Cooper, D., Bond Hill, C., & Schonfeld, R. C. (2022). *Aligning the research library to organizational strategy*. Retrieved from https://sr.ithaka.org/publications/aligning-the-research-library-to-organizational-strategy/
- Corcoran, M., & Mcguinness, C. (2014). Keeping ahead of the curve: academic librarians and continuing professional development in Ireland. *Library Management*, *35*(3), 175–198. https://doi.org/10.1108/LM-06-2013-0048
- Corrall, S. (2000). *Startegic management of information services: a planning handbook*. London: Aslib/IMI.
- Corrall, S. (2013). Designing libraries for research collaboration in the network world. *Library Connect Newsletter*, *11*(3), 3–4. Retrieved from http://d-

scholarship.pitt.edu/21974/1/Corrall_(2013).pdf

- Corrall, S. (2014). Designing libraries for research collaboration in the network world: an exploratory study. *LIBER Quarterly*, *24*(1), 17–48. https://doi.org/10.18352/lq.9525
- Corrall, S. (2016). The road ahead 5: transforming professional competencies. *The Future of Academic Libraries: A Symposium at The Open University*. Retrieved from http://dscholarship.pitt.edu/28241/1/Corrall_OU_symposium_slides.pdf
- Corrall, S., & Jolly, L. (2019). Innovations in learning and teaching in academic libraries: alignment, collaboration, and the social turn. *New Review of Academic Librarianship*, *25*(2–4), 113–128. https://doi.org/10.1080/13614533.2019.1697099
- Corrall, S., Kennan, M. A., & Afzal, W. (2013). Bibliometrics and research data management services: emerging trends in library support for research. *Library Trends*, *61*(3), 636–674. https://doi.org/10.1353/lib.2013.0005
- Cotta-Schønberg, M. (2007). The changing role of the subject specialist. *Liber Quarterly*, *17*(3/4). Retrieved from http://liber.library.uu.nl/
- Cox, A. M., & Corrall, S. (2013). Evolving academic library specialties. *Journal of the American Society for Information Science and Technology*, *64*(8), 1526–1542. https://doi.org/10.1002/asi.22847
- Cox, A. M., & Pinfield, S. (2014). Research data management and libraries: current activities and future priorities. *Journal of Librarianship and Information Science*, 46(4), 299–316. https://doi.org/10.1177/0961000613492542
- Cox, A. M., Pinfield, S., & Rutter, S. (2019). Extending McKinsey's 7S model to understand strategic alignment in academic libraries. *Library Management*, 40(5), 313–326. https://doi.org/10.1108/LM-06-2018-0052
- Cox, J. (2016). Communicating new library roles to enable digital scholarship: a review article. New

Review of Academic Librarianship, *22*(2–3), 132–147. https://doi.org/10.1080/13614533.2016.1181665

Cox, J. (2017). New directions for academic libraries in research staffing: A case study at National University of Ireland Galway. *New Review of Academic Librarianship*, *23*(2–3), 110–124. https://doi.org/10.1080/13614533.2017.1316748

Cox, J. (2018). Positioning the academic library within the institution: a literature review. *New Review of Academic Librarianship*, *24*(3–4), 219–243. https://doi.org/10.1080/13614533.2018.1466342

Cox, J. (2021). The higher education environment driving academic library strategy: A political, economic, social and technological (PEST) analysis. *Journal of Academic Librarianship*, *47*(1), 1– 11. https://doi.org/10.1016/j.acalib.2020.102219

Crawford, A. (2012). New directions for academic liaison librarians. Oxford: Chandos.

- Creswell, J. W., & Plano Clark, V. L. (2011). *Designing and conducting mixed methods research*. Thousand Oaks: SAGE.
- Crooker, C., Killheffer, R., & Mandour, C. (1991). The reorganization of technical services at Yale. *Technical Services Quarterly*, *9*(1), 27–41. https://doi.org/10.1300/J124V09N01_04
- Cross, R. L., & Parker, A. (2004). *The hidden power of social networks: understanding how work really gets done in organizations*. Boston: Harvard Business School Press.
- Crossno, J. E., DeShay, C. H., Huslig, M. A., Mayo, H. G., & Patridge, E. F. (2012). A case study: the evolution of a "facilitator model" liaison program in an academic medical library. *Journal of the Medical Library Association*, *100*(3), 171–175. https://doi.org/http://dx.doi.Org/10.3163/1536-5050.100.3.006

Currier, B. D., Mirza, R., & Downing, J. (2017). They think all of this is new: leveraging librarians'

project management skills for the digital humanities. *College & Undergraduate Libraries*, 1–20. https://doi.org/10.1080/10691316.2017.1347541

- Curry, R., & Farmilo, V. (2018). A defence of subject specialism in academic librarianship A defence of subject specialism in academic librarianship. *SCONUL Focus*, *71*, 19–22. Retrieved from https://www.sconul.ac.uk/sites/default/files/documents/Curry_Farmilo.pdf
- Curtis, G., Davies, C., Hammond, M., Hawtin, R., Ringland, G., & Yapp, C. (2011). Academic libraries of the future: scenarios beond 2020. Retrieved from https://www.sconul.ac.uk/sites/default/files/documents/Scenarios_beyond_2020_ReportWV.
 pdf
- Daft, R. L., Murphy, J., & Willmott, H. (2017). *Organization: theory and design: an international perspective* (3rd ed.). Andover: Cengage Learning.
- Damanpour, F., & Avavind, D. (2011). Managerial innovation: conceptions, processes, and antecedents. *Management and Organizational Review*, 8(2), 423–454. https://doi.org/10.1111/j. 1740-8784.2011.00233.x
- Danermark, B. (2002). Interdisciplinary research and Critical Realism: the example of disability research. *Alethia*, *5*(1), 56–64. https://doi.org/10.1558/aleth.v5i1.56
- David, R. J., & Bitektine, A. B. (2009). The deinstituionalization of institutional theory? Exploring divergent agendas in institutional research. In D. A. Buchanan & A. Bryman (Eds.), *The SAGE handbook of organizational research methods* (pp. 160–175). London: SAGE.
- Davis, C. (2008). Librarianship in the 21st century: crisis or transformation? *Public Library Quarterly*, *27*(1), 57–82. https://doi.org/10.1080/01616840802122401
- Day, A., & Novak, J. (2019). The subject specialist is dead. Long live the subject specialist! *Collection Management*, 44(2–4), 117–130. https://doi.org/10.1080/01462679.2019.1573708

- Deiss, K. (2004). Innovation and strategy: risk and choice in shaping user-centered libraries. *Library Trends*, *53*(1), 17–32. Retrieved from http://search.proquest.com/openview/90dd3ba152314fd8a24a474c064f3b5c/1?pqorigsite=gscholar&cbl=34778
- Delaney, G., & Bates, J. (2015). Envisioning the academic library: a reflection on roles, relevancy and relationships. *New Review of Academic Librarianship*, *21*(1), 30–51. https://doi.org/10.1080/13614533.2014.911194
- Delserone, L., Kelly, J., & Kempf, J. (2010). *Connecting researchers with funding opportunities: A joint effort of the Libraries and the University Research Office.* Retrieved from http://digitalcommons.unl.edu/libraryscience/244/
- Dempsey, L. (2007). Our digital identities: bricolage, prefabrication and disclosure [Blog post]. Retrieved March 16, 2018, from http://orweblog.oclc.org/our-digital-identities-bricolageprefabrication-and-disclosure/
- Dempsey, L. (2008). Reconfiguring the library systems environment. *Portal: Libraries and the Academy*, *8*(2), 111–120. https://doi.org/10.1353/pla.2008.0016
- Dempsey, L. (2012a). Libraries and the informational future: some notes. *Information Services and Use*, *32*(3/4), 201–212. https://doi.org/10.3233/ISU-2012-0670
- Dempsey, L. (2012b). The enterprising librarian ... [Blog post]. Retrieved April 13, 2018, from http://orweblog.oclc.org/the-enterprising-librarian/
- Dempsey, L. (2013). Three challenges: Engaging, rightscaling and innovating [Blog post]. Retrieved October 31, 2017, from http://orweblog.oclc.org/three-challenges-engaging-rightscaling-andinnovating/
- Dempsey, L. (2014). *The network reshapes the library: Lorcan Dempsey on libraries, services, and networks*. London: Facet.

- Dempsey, L. (2015). Technology co-evolves with organisation and behaviours. In S. Bell, L. Dempsey,
 & B. Fister (Eds.), *New roles for the road ahead: essays commissioned for ACRL's 75th anniversary* (pp. 22–34). Association of College and research Libraries. Retrieved from http://www.ala.org/acrl/sites/ala.org.acrl/files/content/publications/whitepapers/new_roles_ 75th.pdf
- Dempsey, L. (2017). Library collections in the life of the user: two directions. *LIBER Quarterly*, *26*(4), 338. https://doi.org/10.18352/lq.10170

Dempsey, L., & Malpas, C. (2018). Academic library futures in a diversified university system. In N. W. Gleason (Ed.), *Higher Education in the Era of the Fourth Industrial Revolution* (pp. 65–89). Singapore: Palgrave MacMillan. https://doi.org/10.1007/978-981-13-0194-0

Dempsey, L., Malpas, C., & Lavoie, B. (2014). Collection directions: the evolution of library collections and collecting. *Portal: Libraries and the Academy*, *14*(3), 393–423. https://doi.org/10.1353/pla.2014.0013

Department for Business Innovation and Skills. (2011). *Higher education: students at the heart of the system*. Retrieved from http://www.wwwords.co.uk/pdf/validate.asp?j=plat&vol=6&issue=1&year=200 7&article=6_Sander_PLAT_6_1_web

Department for Culture Media & Sport. (2016). *Taking part 2015/16 quarter 4: statistical release*. Retrieved from https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/539312/Taki

ng_Part_2015-16_Quarter_4_Report_-_FINAL.pdf

Dillion, A. (2008). Accelerating learning and discovery: refining the role of academic librarians. In *No brief candle: reconceiving research libraries for the 21st century* (pp. 51–57). Washington, DC:
 Council on Library and Information Resources. https://doi.org/10.2307/805220

DiMaggio, P. J., & Powell, W. W. (1983). The Iron Cage revisited: institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48(2), 147–160.
 Retrieved from http://www.jstor.org/stable/2095101

Docherty, T. (2015). Universities at war. Thousand Oaks: SAGE.

Donaldson, L. (2001). The contingency theory of organizations. Thousand Oaks: SAGE.

Donham, J., & Green, C. W. (2004). Developing a culture of collaboration: librarian as consultant. *Journal of Academic Librarianship*, *30*(4), 314–321. https://doi.org/10.1016/j.acalib.2004.04.005

- Doskatsch, I. (2003). Perceptions and perplexities of the faculty-librarian partnership: an Australian perspectives. *Reference Services Review*, *31*(2), 111–121. https://doi.org/10.1108/00907320310476585
- Doskatsch, I. (2007). From flying solo to playing as a team: evolution of academic library services at the University of South Australia. *Library Management*, *28*(8/9), 460–473. https://doi.org/10.1108/01435120710837756

Drucker, P. F. (1989). *The practice of management*. Oxford: Butterworth-Heinemann.

- Drummond, R., & Wartho, R. (2009). RIMS: The Research Impact Measurement Service at the University of New South Wales. *Australian Academic & Research Libraries*. https://doi.org/10.1080/00048623.2009.10721387
- Drummond, R., & Wartho, R. (2016). Rims: The Research Impact Measurement Service At The University Of New South Wales. *Australian Academic & Research Libraries*, *47*(4), 270–281. https://doi.org/10.1080/00048623.2016.1253427
- du Gay, P. (2005). The values of bureaucracy: an introduction. In P. du Gay (Ed.), *The values of bureaucracy* (pp. 1–13). Oxford: Oxford University Press.

- Duncan, R. (1979). What is the right organization structure? Decision tree analysis provides the answer. *Organizational Dynamics*, 7(3), 59–80. Retrieved from 10.1016/0090-2616(79)90027-5
- Duncan, R. B. (1976). The ambidextrous organization: designing dual structures for innovation. In R. Kilman & L. Pondy (Eds.), *The management of organizational design* (pp. 167–188). New York: North Holland.
- East, J. W. (2007). The future role of the academic liaison librarian: a literature review. *Online Currents*, *22*(4), 116–121. Retrieved from http://eprints.rclis.org/10561/
- Easton, G. (2010). Critical Realism in case study research. *Industrial Marketing Management*, *39*(1), 118–128. https://doi.org/10.1016/j.indmarman.2008.06.004
- Edwards, P. K., O'Mahoney, J., & Vincent, S. (Eds.). (2014). *Studying organizations using Critical Realism: a practical guide*. Oxford: Oxford University Press. https://doi.org/10.1093/acprof:oso/9780199665525.001.0001
- Edwards, P. K., Vincent, S., & O'Mahoney, J. (2014). Concluding comments. In P. K. Edwards, J. O'Mahoney, & S. Vincent (Eds.), *Studying organizations using Critical Realism: a practical guide* (pp. 318–326). Oxford: Oxford University Press.
- Eisenhardt, K. M. (1989). Building theories from case study research. *The Academy of Management Review*, *14*(4), 532–550. Retrieved from http://www.jstor.org/stable/258557
- Eldridge, J., Fraser, K., Simmonds, T., & Smyth, N. (2017). Strategic engagement: new models of relationship management for academic librarians. *New Review in Academic Librarianship*, *22*(2–3), 160–175. https://doi.org/10.1080/13614533.2016.1193033
- Ellis, E. L., Rosenblum, B., Stratton, J. M., & Ames-Stratton, K. (2014). Positioning academic libraries for the future: a process and strategy for organizational transformation. 35th IATUL Conference (International Association of Scientific and Technological University Libraries). Espoo, Finland. Retrieved from https://kuscholarworks.ku.edu/handle/1808/14141

- Elton, L. (2011). Complexity theory an approach to assessment that can enhance learning and transform university management. In M. Molesworth, R. Scullion, & E. Nixon (Eds.), *The marketisation of higher education and the student as consumer* (pp. 64–70). London: Routledge.
- Emmel, N., Greenhalgh, J., Manzano, A., Monaghan, M., & Dalkin, S. (Eds.). (2018). *Doing realist research*. Los Angeles: SAGE.
- Evans, G., & Schonfeld, R. (2020). It's not what libraries hold; it's who libraries serve: Seeking a usercentered future for academic libraries. In *Ithaka S+R*. Retrieved from https://doi.org/10.18665/sr.312608%0Ahttp://sr.ithaka.org/?p=312608
- Evetts, J. (2016). Hybrid organizations and hybrid professionalism: changes, continuities and challenges. In A. Wilkinson, D. Hislop, & C. Coupland (Eds.), *Perspectives on contemporary professional work: challenges and experiences* (pp. 16–34). Cheltenham: Edward Elgar.
- Feilzer, M. Y. (2010). Doing mixed methods research pragmatically: implications for the rediscovery of Pragmatism as a research paradigm. *Journal of Mixed Methods Research*, 4(1), 6–16. https://doi.org/10.1177/1558689809349691
- Fetters, M. D., Curry, L. A., & Creswell, J. W. (2013). Achieving integration in mixed methods designs principles and practices. *Health Services Research*. https://doi.org/10.1111/1475-6773.12117
- Fidel, R. (2008). Are we there yet?: Mixed methods research in library and information science. *Library & Information Science Research*, *30*(4), 265–272.
 https://doi.org/10.1016/J.LISR.2008.04.001
- Field, C. D. (2001). Theory and practice: reflections on convergence in United Kingdom universities. LIBER Quarterly, 11(3), 267–289. Retrieved from https://doaj.org/article/ea0020baa4ec46b2b16e0be788f8e1f8
- Fleetwood, S. (2004). An ontology for organisation and management studies. Critical Realist

Applications in Organisation and Management Studies, 25–50.

https://doi.org/10.4324/9780203537077

- Fleetwood, S. (2005). Ontology in organization and management studies: a Critical Realist perspective. *Organization*, *12*(2), 197–222. https://doi.org/10.1177/1350508405051188
- Fleetwood, S., & Ackroyd, S. (Eds.). (2004). *Critical Realist applications in organisation and management studies*. London: Routledge.
- Fletcher, A. J. (2017). Applying critical realism in qualitative research: methodology meets method. International Journal of Social Research Methodology, 20(2), 181–194. https://doi.org/10.1080/13645579.2016.1144401
- Foskett, N. (2011). Markets, government, funding and the marketisation of UK higher education. InM. Molesworth, R. Scullion, & E. Nixon (Eds.), *The marketisation of higher education and the student as consumer* (pp. 25–38). London: Routledge.
- Franklin, B. (2009). Aligning library strategy and structure with the campus academic plan: a case study. *Journal of Library Administration*, *49*(5), 495–505. https://doi.org/10.1080/01930820903090862
- Frederick, J. K., & Wolff-Eisenberg, C. (2020). Academic library strategy and budgeting during the COVID-19 pandemic: results from the Ithaka S + R US Library Survey 2020. Retrieved from https://sr.ithaka.org/publications/academic-library-strategy-and-budgeting-during-the-covid-19-pandemic/
- Fruin, C., & Sutton, S. (2016). Strategies for success: open access policies at North American educational institutions. *College & Research Libraries*, 77(4), 469–499.
 https://doi.org/10.5860/crl.77.4.469
- Furedi, F. (2011). Introduction to the marketisation of higher education and the student as consumer. In M. Molesworth, R. Scullion, & E. Nixon (Eds.), *The marketisation of higher*

education and the student as consumer (pp. 1–7). London: Routledge.

Further and Higher Education Act. (1992). Retrieved from

https://www.legislation.gov.uk/ukpga/1992/13/pdfs/ukpga_19920013_en.pdf

- Garoufallou, E., Siatri, R., Zafeiriou, G., & Balampanidou, E. (2013). The use of marketing concepts in library services: A literature review. *Library Review*, *62*(4), 312–334. https://doi.org/10.1108/LR-06-2012-0061
- Gaston, R. (2001). The changing role of the subject librarian, with a particular focus on UK developments, examined through a review of the literature. *Review of Academic Librarianship*, 7(1), 19–36. https://doi.org/10.1080/13614530109516819
- Gersick, C. T. G. (1991). Revolutionary change theories : a multilevel exploration of the punctuated equilibrium paradigm. *The Academy of Management Review*, *16*(1), 10–36. https://doi.org/10.5465/AMR.1991.4278988

Gibbs, G. R. (2018). Analyzing qualitative data (2nd ed.). London: SAGE.

Giddens, A. (1984). *The constitution of society*. Cambridge: Polity Press.

- Giesecke, J. (1994). Reorganizations: an interview with staff from the University of Arizona Libraries. *Library Administration & Management*, 8(4), 196–199. Retrieved from http://digitalcommons.unl.edu/libraryscience
- Giesecke, J. (2012). The value of partnerships: building new partnerships for success. *Journal of Library Administration*, *52*(1), 36–52. https://doi.org/10.1080/01930826.2012.629964
- Gorman, M. (2003). *The enduring library: technology, tradition, and the quest for balance.* Chicago: American Library Association.
- Gould, E. M., & Mezick, J. A. (2021). Communication between technical services and subject librarians: an exploratory study. *Technical Services Quarterly*, *38*(4), 341–366.

https://doi.org/10.1080/07317131.2021.1973794

- Green, A. (2022). Post Covid-19: Expectations for academic library collections, remote work, and resource description and discovery staffing. *The Journal of Academic Librarianship*, *48*(4), 102564. https://doi.org/10.1016/j.acalib.2022.102564
- Greene, J. C., Caracelli, V. J., & Graham, W. F. (1989). Toward a conceptual framework for mixedmethod evaluation designs. *Educational Evaluation and Policy Analysis*, *11*(3), 255–274. Retrieved from http://www.jstor.org/stable/1163620
- Gremmels, G. S. (2013). Staffing trends in college and university libraries. *Reference Services Review*, *41*(2), 233–252. https://doi.org/10.1108/00907321311326165
- Grove, J. (2018). Are teaching and research mutually exclusive? Retrieved July 9, 2018, from Times Higher Education website: https://www.timeshighereducation.com/features/are-teaching-andresearch-mutually-exclusive
- Gwyer, R. (2015). Identifying and exploring future trends impacting on academic libraries: a mixed methodology using journal content analysis, focus groups, and trend reports. *New Review of Academic Librarianship*, *21*(3), 269–285. https://doi.org/10.1080/13614533.2015.1026452
- Gyure, D. A. (2008). The heart of the university: a history of the library as an architecturl symbol of American higher education. *Winterthur Portfolio*, *42*(2/3), 107–132. https://doi.org/10.1086/589593
- Haddow, G., & Mamtora, J. (2017). Research support in Australian academic libraries: services, resources, and relationships. *New Review of Academic Librarianship*, *23*(2–3), 89–109. https://doi.org/10.1080/13614533.2017.1318765
- Hage, J., & Aiken, M. (1967). Program change and organizational properties: a comparative analysis. *American Journal of Sociology*, 72(5), 503–519. https://doi.org/10.1086/224380

- Hage, J. T. (1999). Organizational innovation and organizational change. *Annual Review of Sociology*, *25*, 597–622. https://doi.org/10.1146/annurev.soc.25.1.597
- Hanson, T. (2005). Introduction: twenty years of convergence in the UK. In T. Hanson (Ed.),
 Managing academic support services in universities: the convergence experience (pp. 1–9).
 London: Facet.
- Hardesty, L. (2005). Convergence in the United States. In T. Hanson (Ed.), *Managing academic support services in universities: the convergence experience* (pp. 202–211). London: Facet.

Hayes, D. (Ed.). (2017a). Beyond McDonaldization: vision of higher education. London: Routledge.

- Hayes, D. (2017b). Beyond the McDonaldization of higher education. In D. Hayes (Ed.), *Beyond McDonaldization: visions of higher education* (pp. 1–18). London: Routledge.
- Hayes, D., & Wynyard, R. (Eds.). (2002). *The McDonaldization of higher education*. Greenwich: Information Age.
- Hayes, J. (2014). *The theory and practice of change management* (4th ed.). New York: Palgrave MacMillan.
- Helfer, D. S. (1998). The end of the road for a corporate library or is it ? *Searcher: The Magazine for Database Professionals*, *6*(1), 14–16. Retrieved from https://search-proquest-com.sheffield.idm.oclc.org/docview/743770742?rfr_id=info%3Axri%2Fsid%3Aprimo
- Hepworth, M. (2000). Approaches to providing information literacy training in higher education:
 Challenges for librarians. *New Review of Academic Librarianship*, *6*(1), 21–34.
 https://doi.org/10.1080/13614530009516799
- Hernon, P., & Matthews, Joseph, R. (2013). *Reflecting on the future of academic and public libraries*. Chicago: ALA Editions.

Herther, N. K. (2009). Research evaluation and citation analysis: key issues and implications. The

Electronic Library, 27(3), 361–375. https://doi.org/10.1108/02640470910966835

Heseltine, R., Marsh, S., McKnight, S., & Mellina, M. (2009). Super-convergence: SCONUL sharedexperience meeting, 16 February 2009. *SCONUL Focus*, *46*, 121–124. Retrieved from https://www.sconul.ac.uk/publications/newsletter/46/34.pdf

Higher Education Act 2004. https://www.legislation.gov.uk/ukpga/2004/8/contents

Higher Education and Research Act 2017.

https://www.legislation.gov.uk/ukpga/2017/29/contents/enacted

- Hill, P., Tinker, A., & Catterall, S. (2010). From deficiency to development: the evolution of academic skills provision at one UK university. *Journal of Learning Development in Higher Education*, (2). https://doi.org/10.47408/jldhe.v0i2.54
- Hoadley, I. B., & Corbin, J. (1990). Up the beanstalk: an evolutionary organizational structure for libraries. *American Libraries*, *21*(7), 676–678. Retrieved from http://www.jstor.org/stable/25631961
- Holmgren, R., & Spencer, G. (2014). *The changing landscape of library and information services: what presidents, provosts, and finance officers need to know.* Washington. Retrieved from https://www.clir.org/pubs/reports/pub162/
- Hoodless, C., & Pinfield, S. (2018). Subject vs. functional: Should subject librarians be replaced by functional specialists in academic libraries? *Journal of Librarianship and Information Science*, *50*(4), 345–360. https://doi.org/10.1177/0961000616653647
- Housewright, R. (2009). Themes of change in corporate libraries: considerations for academic libraries. *Portal: Libraries and the Academy*, *9*(2), 253–271. https://doi.org/10.1353/pla.0.0048
- Howard, H. (2012). Looking to the future: Developing an academic skills strategy to ensure information literacy survives in a changing higher education world. *Journal of Information*

Literacy, *6*(1). https://doi.org/10.11645/6.1.1677

- Howard, R., & Fitzgibbons, M. (2016). Librarian as partner: in and out of the library. In A. Mackenzie
 & L. Martin (Eds.), *Developing digital scholarship: emerging practices in academic libraries* (pp. 43–60). London: Facet.
- Hrycaj, P., & Russo, M. (2007). Reflections on surveys of faculty attitudes toward collaboration with librarians. *The Journal of Academic Librarianship*, *33*(6), 692–696.
 https://doi.org/10.1016/j.acalib.2007.09.008
- Hurrell, S. A. (2014). Critical Realism and mixed methods research. In P. K. Edwards, J. O'Mahoney, &
 S. Vincent (Eds.), *Studying organizations using Critical Realism: a practical guide* (pp. 241–263).
 Oxford: Oxford University Press. https://doi.org/10.1093/acprof:oso/9780199665525.003.0013
- Independent Review of Higher Education Funding & Student Finance. (2010). *Securing a sustainable future for higher education*. https://doi.org/10.1787/220180871707

Jackson, K., & Bazeley, P. (2019). *Qualitative data analysis with NVivo* (3rd ed.). London: SAGE.

- Jaguszewski, J. M., & Williams, K. (2013). *New roles for new times: transforming liaison roles in research libraries*. Washington. Retrieved from http://www.arl.org/component/content/article/6/2893
- Jain, P. (2011). New trends and future applications/directions of institutional repositories in academic institutions. *Library Review*, *60*(2), 125–141. Retrieved from http://dx.doi.org/10.1108/0024253111113078
- Jakubs, D. (2008). Out of the gray times: leading libraries into the digital future. *Journal of Library Administration*, *48*(2), 235–248. https://doi.org/10.1080/01930820802231518
- Jansen, J. J. P., Tempelaar, M. P., van den Bosch, F. A. J., & Volberda, H. W. (2009). Structural differentiation and ambidexterity: the mediating role of integration mechanisms. *Organization*

Science, 20(4), 797–811. https://doi.org/10.1287/orsc.1080.0415

- Jantz, R. C. (2012a). A framework for studying organizational innovation in research libraries. *College* & *Research Libraries*, 73(6), 525–541. https://doi.org/10.5860/crl-302
- Jantz, R. C. (2012b). Innovation in academic libraries: An analysis of university librarians' perspectives. *Library and Information Science Research*, *34*(1), 3–12. https://doi.org/10.1016/j.lisr.2011.07.008
- Jantz, R. C. (2015). The determinants of organizational innovation: an interpretation and implications for research libraries. *College & Research Libraries*, *76*(4), 512–536. https://doi.org/10.5860/crl.76.4.512
- Jantz, R. C. (2016). *Managing creativity: the innovative research library*. Chicago: Association of College and Research Libraries.
- Jantz, R. C. (2017). Creating the innovative library culture: escaping the iron cage through management innovation. *New Review of Academic Librarianship*, *23*(4), 323–328. https://doi.org/10.1080/13614533.2017.1388055
- Jeal, Y. (2015). Strategic alignment at the University of Manchester Library: ambitions, transitions, and new values. *New Review of Academic Librarianship*, *20*(3), 278–295. https://doi.org/10.1080/13614533.2014.919328
- John Fielden Consultancy. (1993). Supporting expansion: a report on human resource management in academic libraries, for the Joint Funding Councils' Libraries Review Group. Bristol.
- Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed methods research: a research paradigm whose time has come. *Educational Researcher*, *33*(7), 14–26. https://doi.org/10.3102/0013189X033007014
- Joint Funding Councils' Libraries Review Group. (1993). Report (The Follett Report). Bristol.

- Joint, N. (2011). New perspectives on the convergence of academic libraries and campus information technology departments. *Library Review*, *60*(8), 637–644. https://doi.org/10.1108/00242531111166674
- Jones-Evans, A. (2005). Bangor university library services: an update. *Journal of Librarianship and Information Science*, *37*(3), 115–117. https://doi.org/10.1177/0961000605057955

Jones, G. R. (2013). Organisational theory, design, and change (7th ed.). Harlow: Pearson.

- Jurevicius, O. (2013). McKinsey 7s Model. Retrieved June 7, 2018, from Strategic Management Insight website: https://www.strategicmanagementinsight.com/tools/mckinsey-7s-modelframework.html
- Kempster, S., & Parry, K. (2014). Critical realism and grounded theory. In P. K. Edwards, J.
 O'Mahoney, & S. Vincent (Eds.), *Studying organizations using Critical Realism: a practical guide* (pp. 86–108). Oxford: Oxford University Press.
- Kennedy, A. (2017). Beyond McUniversity: the university as it should be. In *Beyond McDonaldization: visions of higher education* (pp. 47–56). London: Routledge.
- Kenney, A. R. (2014). *Leveraging the liaison model: from defining 21st century research libraries to implementing 21st century research universities*. Retrieved from http://www.sr.ithaka.org/wpcontent/mig/files/SR_BriefingPaper_Kenney_20140322.pdf
- Kessler, I., & Bach, S. (2014). Comparing cases. In P. K. Edwards, J. O'Mahoney, & S. Vincent (Eds.),
 Studying organizations using Critical Realism: a practical guide (pp. 168–184). Oxford: Oxford
 University Press. https://doi.org/10.1093/acprof:oso/9780199665525.003.0009
- Khurshid, Z. (1997). The application of TQM in cataloguing. *Library Management*, *18*(6), 274–279. https://doi.org/10.1108/01435129710176706
- Koltay, T. (2016). Are you ready?: Tasks and roles for academic libraries in supporting Research 2.0.

New Library World New Library World New Library World, 117(12), 94–104. https://doi.org/10.1108/NLW-09-2015-0062

- Kornelakis, A., & Petrakaki, D. (2020). Embedding employability skills in UK higher education: Between digitalization and marketization. *Industry and Higher Education*, *34*(5), 290–297. https://doi.org/10.1177/0950422220902978
- Krueger, R. A., & Casey, M. A. (2015). *Focus groups: a practical guide for applied research* (5th ed.). Thousand Oaks: SAGE.

Lakos, A., & Phipps, S. E. (2004). Creating a Culture of Assessment: A Catalyst for Organizational Change. *Portal: Libraries and the Academy*, *4*(3), 345–361. https://doi.org/10.1353/pla.2004.0052

- Lang, L., Wilson, T., Wilson, K., & Kirkpatrick, A. (2018). Research support at the crossroads: capability, capacity and collaboration. *New Review of Academic Librarianship*. https://doi.org/10.1080/13614533.2018.1460727
- Lankes, R. D. (2014). Reinventing the academic library: conclusion [Blog post]. Retrieved January 5, 2018, from https://davidlankes.org/reinventing-the-academic-library-conclusion/
- Larsen, S., & Riis, C. (2012). Aarhus University Library: restructuring a university's library organisation. *Bibliothek Forschung Und Praxis*, *36*, 235–240. https://doi.org/10.1515/bfp-2012-0030
- Law, D. (1998). Convergence of academic support services. In T. Hanson & J. Day (Eds.), *Managing the electronic library: a practical guide for information professionals* (pp. 49–62). London: Bowker Saur.
- Law, D. (2009). Academic digital libraries of the future: an environment scan. *New Review of Academic Librarianship*, *15*(1), 53–67. https://doi.org/10.1080/13614530903069307

- Law, D. (2014). The world is our lobster: rethinking traditional attitudes. *New Library World*, *115*(5/6), 200–210. https://doi.org/10.1108/NLW-05-2014-0054
- Lawrence, P. R., & Lorsch, J. W. (1967). Differentiation and integration in complex organizations. *Administrative Science Quarterly*, *12*(1), 1–47. https://doi.org/10.2307/2391211
- Leca, B., & Naccache, P. (2006). A Critical Realist approach to institutional entrepreneurship. *Organization*, *13*(5), 627–651. https://doi.org/10.1177/1350508406067007
- Levine-Clark, M. (2014). Access to everything: Building the future academic library collection. *Portal: Libraries and the Academy*, *14*(3), 425–437. https://doi.org/10.1353/pla.2014.0015

Lewis, D. W. (2016). *Reimagining the academic library*. Lanham: Rowman & Littlefield.

Lipscomb, M. (2008). Mixed method nursing studies: a Critical Realist critique. *Nursing Philosophy*, *9*(1), 32–45. https://doi.org/10.1111/j.1466-769X.2007.00325.x

Llewellyn, A. (2019). Innovations in learning and teaching in academic libraries: a literature review. *New Review of Academic Librarianship*, *25*(2–4), 129–149. https://doi.org/10.1080/13614533.2019.1678494

Long, M. P., & Schonfeld, R. C. (2014). *Ithaka S+R US Library Survey 2013*. New York. Retrieved from http://www.sr.ithaka.org/wp-content/uploads/2015/08/SR_LibraryReport_20140310_0.pdf

Lynch, R. (2015). Strategic management (7th ed.). Harlow: Pearson.

- Ma, L. (2012). Some philosophical considerations in using mixed methods in library and information science research. *Journal of the American Society for Information Science and Technology*, 63(9), 1859–1867. https://doi.org/10.1002/asi.22711
- Mackenzie, A., & Martin, L. (Eds.). (2014). *Mastering digital librarianship: strategy, networking and discovery in academic libraries*. London: Facet.

Mackenzie, A., & Martin, L. (Eds.). (2016a). Developing digital scholarship: emerging practices in

academic libraries. London: Facet.

292&site=ehost-live

- Mackenzie, A., & Martin, L. (2016b). Reflections on digital scholarship: so many reasons to be cheerful. In A. Mackenzie & L. Martin (Eds.), *Developing digital scholarship: emerging practices in academic libraries* (pp. 173–177). London: Facet.
- Malenfant, K. J. (2010). Leading change in the system of scholarly communication: a case study of engaging liaison librarians for outreach to faculty. *College & Research Libraries*, 71(1), 63–77. Retrieved from http://search.ebscohost.com.sheffield.idm.oclc.org/login.aspx?direct=true&db=llf&AN=502995
- Malpas, C., Schonfeld, R., Stein, R., Dempsey, L., & Marcum, D. (2018). *University futures, library futures: aligning library strategies with institutional directions*. Dublin, Ohio. https://doi.org/10.25333/WS5K-DD86
- Mamtora, J. (2013). Transforming library research services: towards a collaborative partnership. *Library Management*. https://doi.org/10.1108/01435121311328690
- Marcum, D., Schonfeld, R., & Thomas, S. (2015). *Office of scholarly communication: scope, organizational placement, and planning in ten research libraries.* Retrieved from http://www.sr.ithaka.org/wp-content/uploads/2015/11/SR_Report_Harvard_OSC_111815.pdf
- Maringe, F. (2011). The student as consumer: affordances and constraints in a transforming higher education environment. In M. Molesworth, R. Scullion, & E. Nixon (Eds.), *The marketisation of higher education and the student as consumer* (pp. 142–154). London: Routledge.
- Martin, L. (2016). The university library and digital scholarship: a review of the literature. In A. Mackenzie & L. Martin (Eds.), *Developing digital scholarship: emerging practices in academic libraries* (pp. 3–22). London: Facet.

Martin, J. V. (1996). Subject specialization in British university libraries: a second survey. Journal of

Librarianship and Information Science, *28*(3), 159–169.

https://doi.org/10.1177/096100069602800305

Mathews, B. (2012). *Think like a startup: a white paper to inspire library entrepreneurialism*. Blacksburg. Retrieved from http://vtechworks.lib.vt.edu/handle/10919/18649%5Cnhttp://vtechworks.lib.vt.edu/bitstream /10919/18649/1/Think like a STARTUP.pdf%5Cnhttp://hdl.handle.net/10919/18649

Matthews, J. R. (2013). Assessing library contributions to university outcomes: the needs for individual support. *Library Management*, *33*(6/7), 389–402.
https://doi.org/10.1108/01435121211266203

Maxwell, J. A. (2012). A realist approach for qualitative research. London: SAGE.

Maxwell, J. A., & Mittapalli, K. (2010). Realism as a stance for mixed methods research. In A.
Tashakkori & C. Teddlie (Eds.), SAGE Handbook of Mixed Methods in Social & Behavioral Research (2nd ed., pp. 145–168). Thousand Oaks: SAGE.
https://doi.org/10.4135/9781506335193

- McGuinness, C. (2006). What faculty think: exploring the barriers to information literacy development in undergraduate education. *Journal of Academic Librarianship*, *32*(6), 573–582. https://doi.org/10.1016/j.acalib.2006.06.002
- McKnight, S. (2010). *Envisioning future academic library services : initiatives, ideas and challenges.* London: Facet.
- McNay, I. (1997). The impact of the 1992 Research Assessment Exercise in English universities. *Higher Education Review*, *29*(2), 34–43. Retrieved from https://search-proquestcom.sheffield.idm.oclc.org/docview/1297985100?accountid=13828
- McNay, I. (2003). Assessing the assessment: an analysis of the UK Research Assessment Exercise, 2001, and its outcomes, with special reference to research in education. *Science and Public*

Policy, 30(1), 47–54. https://doi.org/10.3152/147154303781780704

- McNicol, S. (2005). The challenges of strategic planning in academic libraries. *New Library World*, *106*(11/12), 496–509. https://doi.org/10.1108/01435129410049007
- Meek, V. L. (2000). Diversity and marketisation of higher education: Incompatible concepts? *Higher Education Policy*, *13*(1), 23–39. https://doi.org/10.1016/S0952-8733(99)00030-6
- Melling, M., & Weaver, M. (2017). The Teaching Excellence Framework: what does it mean for academic libraries? *Insights*, *30*(3), 152–160. https://doi.org/10.1629/uksg.389
- Meulemans, Y. N., & Carr, A. (2013). Not at your service: building genuine faculty-librarian partnerships. *Reference Services Review*, 41(1), 80–90. https://doi.org/10.1108/00907321311300893
- Meyer, J. W., & Rowan, B. (1977). Institutionalized organizations: formal structure as myth and ceremony. *American Journal of Sociology*, *83*(2), 340–363. https://doi.org/10.1086/226550
- Mighall, R. (2009). What sets you apart? Retrieved July 9, 2018, from Times Higher Education website: https://www.timeshighereducation.com/features/what-sets-you-apart/407458.article
- Mikitish, S., Kitzie, V., & Connaway, L. S. (2018). Assessing for alignment: how to win collaborators and influence stakeholders. In *Shaping the campus conversation on student learning and experience: activating the results of assessment in action* (pp. 213–222). Retrieved from https://www.oclc.org/content/dam/research/publications/2018/shaping-campusconversation-chapter17.pdf
- Mingers, J. (2004). Real-izing information systems: Critical realism as an underpinning philosophy for information systems. *Information and Organization*, 14(2), 87–103. https://doi.org/10.1016/j.infoandorg.2003.06.001

Mintzberg, H. (2003). The structuring of organizations. In H. Mintzberg, J. Lampel, J. B. Quinn, & S.

Ghoshal (Eds.), *The strategic process: concepts, contexts, cases* (4th ed.). Upper Saddle River, N.J.: Pearson Prentice Hall.

- MIT. (2016). *Institute-wide task force on the future of libraries: preliminary report*. Retrieved from https://future-of-libraries.mit.edu/sites/default/files/FutureLibraries-PrelimReport-Final.pdf
- Modell, S. (2009). In defence of triangulation: a Critical Realist approach to mixed methods research in management accounting. *Management Accounting Research*, *20*(3), 208–221. https://doi.org/10.1016/j.mar.2009.04.001
- Molesworth, M., Nixon, E., & Scullion, R. (2009). Having, being and higher education: The marketisation of the university and the transformation of the student into consumer. *Teaching in Higher Education*, *14*(3), 277–287. https://doi.org/10.1080/13562510902898841
- Molesworth, M., Scullion, R., & Nixon, E. (Eds.). (2011). *The marketization of higher education and the student as consumer*. London: Routledge.
- Moran, B. B. (2001). Restructuring the university library: a North American perspective. *Journal of Documentation*, *57*(1), 100–114. https://doi.org/10.1108/EUM000000007079
- Moran, B. B., Stueart, R. D., & Morner, C. J. (2013). *Library and information center management* (8th ed.). Santa Barbara, California: Libraries Unlimited.
- Moran, R. F. (1980). Improving the organizational design of academic libraries. *The Journal of Academic Librarianship*, *6*(3), 140–145. https://doi.org/10.1080/09540250600667892
- Morgan, D. L. (2007). Paradigms lost and Pragmatism regained. *Journal of Mixed Methods Research*, 1(1), 48–76. https://doi.org/10.1177/2345678906292462

Mullins, L. J. (2016). Management and organisational behaviour (11th ed.). Harlow: Pearson.

Munro, M. (2018). The complicity of digital technologies in the marketisation of UK higher education: exploring the implications of a critical discourse analysis of thirteen national digital teaching and learning strategies. *International Journal of Educational Technology in Higher Education*, *15*(1). https://doi.org/10.1186/s41239-018-0093-2

- Murray, A. L., & Ireland, A. P. (2017). Communicating library impact on retention: a framework for developing reciprocal value propositions. *Journal of Library Administration*, *57*(3), 311–326. https://doi.org/10.1080/01930826.2016.1243425
- Nadolny, A., & Ryan, S. (2015). McUniversities revisited: a comparison of university and McDonald's casual employee experiences in Australia. *Studies in Higher Education*, *40*(1), 142–157. https://doi.org/10.1080/03075079.2013.818642
- Neal, J. G. (2001). The entreprenurial imperative: advancing from incremental to radical change in the academic library. *Portal: Libraries and the Academy*, *1*(1), 1–13. Retrieved from https://muse-jhu-edu.sheffield.idm.oclc.org/article/27117
- Nicholas, D., Rowlands, I., Jubb, M., & Jamali, H. R. (2010). The impact of the economic downturn on libraries: with special reference to university libraries. *Journal of Academic Librarianship*, *36*(5), 376–382. https://doi.org/10.1016/j.acalib.2010.06.001
- Nicholson, K. P. (2015). The McDonaldization of academic libraries and the values of transformational change. *College & Research Libraries*, *76*(3), 328–338. https://doi.org/10.5860/crl.76.3.328
- Niles, J. (1988). Technical services reorganization for an online integrated environment. *Cataloging & Classification Quarterly*, *9*(1), 11–17. https://doi.org/10.1300/J104v09n01_03
- Nixon, E., Scullion, R., & Molesworth, M. (2011). How choice in higher education can create conservative learners. In M. Molesworth, R. Scullion, & E. Nixon (Eds.), *The marketisation of higher education and the student as consumer* (pp. 196–208). London: Routledge.
- NMC. (2016). *Horizon Report: 2016 higher education edition*. Retrieved from http://cdn.nmc.org/media/2016-nmc-horizon-report-he-EN.pdf

- Novak, J., & Day, A. (2015). The libraries they are a changin': how libraries reorganize. *College & Undergraduate Libraries*, *22*(3–4), 358–373. https://doi.org/10.1080/10691316.2015.1067663
- Nutefall, J. E., & Chadwell, F. A. (2012). Preparing for the 21st century: academic library realignment. *New Library World*, *113*(3/4), 162–173. https://doi.org/10.1108/03074801211218543
- O'Cathain, A., Murphy, E., & Nicholl, J. (2010). Three techniques for integrating data in mixed methods studies. *BMJ*, *341*. https://doi.org/10.1136/bmj.c4587
- O'Mahoney, J., & Vincent, S. (2014). Critical Realism as an empirical project. In P. K. Edwards, J.
 O'Mahoney, & S. Vincent (Eds.), *Studying organizations using Critical Realism: a practical guide* (pp. 1–20). Oxford: Oxford University Press.
 https://doi.org/10.1093/acprof:oso/9780199665525.001.0001
- Oakleaf, M. (2010). The value of academic libraries: a comprehensive research review and report. In *Review Literature And Arts Of The Americas*. Chicago. https://doi.org/978 -0- 8389 8568 -7
- Olssen, M., & Peters, M. A. (2005). Neoliberalism, higher education and the knowledge economy: from the free market to knowledge capitalism. *Journal of Education Policy*, *20*(3), 313–345. https://doi.org/10.1080/02680930500108718

Owens, I. (1999). The impact of change from hierarchy to teams in two academic libraries: intended results versus actual results using total quality management. *College & Research Libraries*, *60*(6), 571–584. Retrieved from http://web.b.ebscohost.com.sheffield.idm.oclc.org/ehost/detail/detail?vid=0&sid=f4b7228b-6a31-4eb7-a631-

e7685b22b5a5%40sessionmgr120&bdata=JnNpdGU9ZWhvc3QtbGI2ZQ%3D%3D#AN=5028318 38&db=IIf

Palys, T. (2008). Purposive sampling. In L. R. Given (Ed.), *The SAGE encyclopedia of qualitative research methods* (pp. 698–699). https://doi.org/10.4135/9781412963909

- Parfitt, S. (2016). Social networking with the scholarly community: a literature review. In A.
 Mackenzie & L. Martin (Eds.), *Developing digital scholarship: emerging practices in academic libraries* (pp. 141–155). London: Facet.
- Parkes, S., Young, J. B., Cleaver, E., & Archibald, K. (2014). *Academic and professional services in partnership literature review and overview of results: leading the student experience*. York. Retrieved from

https://www.researchgate.net/profile/Sarah_Parkes3/publication/284170650_Academic_and_ Professional_Services_in_partnership_literature_review_and_overview_of_results/links/564db e3808ae1ef9296aca62/Academic-and-Professional-Services-in-partnership-literatur

Pascale, R. T., & Athos, A. G. (1981). The art of Japanese management. London: Allen Lane.

Pawson, R. (2006). Evidence-based policy: a realist perspective. London: SAGE.

Pawson, R., & Tilley, N. (1997). Realistic evaluation. London: SAGE.

- Pelletier, K., Brown, M., Brooks, D. C., Mccormack, M., Reeves, J., Bozkurt, A., ... Mondelli, V. (2021).
 2021 EDUCAUSE Horizon Report: teaching and learning edition. In *Educause*. Retrieved from https://www.educause.edu/horizon-report-teaching-and-learning-2021
- Pelletier, K., Brown, M., Brooks, D. C., Mccormack, M., Reeves, J., Bozkurt, A., ... Mondelli, V. (2022).
 2022 EDUCAUSE Horizon Report. Teaching and Learning Edition. In *Educause*. Retrieved from https://www.educause.edu/horizon-report-teaching-and-learning-2021
- Perrow, C. (1991). A society of organizations. *Theory & Society*, *20*(6), 725–762. https://doi.org/10.1007/BF00678095

Peters, T., & Waterman Jr., R. H. (1982). In search of excellence. New York: Harper & Row.

Phipps, S. (2004). The system design approach to organizational development: The University of Arizona model. *Library Trends*, *53*(1), 68–111. Retrieved from

https://www.ideals.illinois.edu/handle/2142/1726

Pickard, A. (2013). *Research methods in information* (2nd ed.). London: Facet.

- Pinfield, S. (2001). The changing role of subject librarians in academic libraries. *Journal of Librarianship and Information Science*, *33*(1), 32–38. https://doi.org/10.1177/096100060103300104
- Pinfield, S. (2015). Making Open Access work: the "state-of-the-art" in providing Open Access to scholarly literature. *Online Information Review*, *39*(5), 604–636. https://doi.org/10.1108/EL-01-2014-0022
- Pinfield, S., Cox, A. M., & Rutter, S. (2017). *Mapping the future of academic libraries: a report for SCONUL*. Retrieved from https://sconul.ac.uk/publication/mapping-the-future-of-academiclibraries
- Pinfield, S., Cox, A. M., & Smith, J. (2014). Research data management and libraries: relationships, activities, drivers and influences. *PLoS ONE*, 9(12), 1–28. https://doi.org/10.1371/journal.pone.0114734
- Potter, N., & Kendrick, T. (2012). Marketing your library. *American Libraries*, *43*(11/12), 50–52. Retrieved from https://www.jstor.org/stable/23461753
- Potvin, S. (2013). The principle and the pragmatist: on conflict and coalescence for librarian engagement with open access initiatives. *Journal of Academic Librarianship*, *39*(1), 67–75. https://doi.org/10.1016/j.acalib.2012.11.002
- Pritchard, S. M. (2008). Deconstructing the library: reconceptualizing collections, spaces and services. *Journal of Library Administration*, 48(2), 219–233. https://doi.org/10.1080/01930820802231492

Pugh, L. (2005). Managing 21st century libraries. Lanham, Maryland: Scarecrow.

- QS Top Universities. (2022). QS World University Rankings 2022. Retrieved July 17, 2022, from https://www.topuniversities.com/university-rankings/world-university-rankings/2022
- Quinn, B. (2000). The McDonaldization of academic libraries? *College & Research Libraries*, *61*(3), 339–352. https://doi.org/10.5860/crl.61.3.248
- Quinn, J. B. (1980). Managing strategic change. *Sloan Management Review*, *21*(4), 3–20. Retrieved from https://sloanreview.mit.edu/article/managing-strategic-change/
- Quinn, K., & Bates, J. (2017). Resisting neoliberalism: the challenge of activist librarianship in English Higher Education. *Journal of Documentation*, *73*(2), 317–335. https://doi.org/10.1108/JD-06-2016-0076
- Raju, R., Claassen, J., Adam, A., DAngelo, A., Keraan, S., Mostert, N., & Vonk, S. (2018). Restructuring for relevance: a paradigm shift for academic libraries. *Library Management*, *39*(6–7), 418–429. https://doi.org/10.1108/LM-06-2017-0062 Restructuring
- Reed, M. (2005). Beyond the iron cage? Bureaucracy and democracy in the knowledge economy and society. In P. du Gay (Ed.), *The values of bureaucracy* (pp. 115–140). Oxford: Oxford University Press.
- Reed, M. (2009). Critical Realism: philosophy, method, or philosophy in search of a method? In D.
 Buchanan & A. Bryman (Eds.), *The SAGE handbook of organizational research methods* (pp. 430–448). Los Angeles: SAGE.
- RIN. (2010). *Trends in the finances of UK higher education libraries: 1999-2009.* Retrieved from www.rin.ac.uk
- Ritzer, G. (2018). The McDonaldization of society (9th ed.). Los Angeles: SAGE.
- Robinson, L. (2016). Developing the professionals of the future: views from experts in "library schools." *SCONUL Focus*, *67*, 5–17. Retrieved from

https://www.sconul.ac.uk/sites/default/files/documents/2_18.pdf

Rodwell, J. (1992). Dinosaur or dynamo? The future for the subject specialist reference librarian. *New Library World*, *102*(3), 48–52. Retrieved from http://dx.doi.org/10.1108/03074800110365499

Rodwell, J., & Fairbairn, L. (2008). Dangerous liaisons?: Defining the faculty liaison librarian service model, its effectiveness and sustainability. *Library Management Library Review Reference Services Review Iss New Library World*, *29*(1/2), 116–124.
 https://doi.org/10.1108/01435120810844694

Rogers, E. M. (2003). Diffusion of innovations (5th ed.). New York: Free Press.

Rowley, J. (2011). Innovation for survival: From cooperation to collaboration. *Advances in Librarianship*, *34*(2011), 207–224. https://doi.org/10.1108/S0065-2830(2011)0000034013

Saldaña, J. (2016). The coding manual for qualitative researchers (3rd ed.). London: SAGE.

- Salo, D. (2014). Can we block the pipeline out? Retrieved from Library Journal website: https://lj.libraryjournal.com/2014/03/opinion/peer-to-peer-review/can-we-block-the-pipelineout-peer-to-peer-review/
- Salo, D. (2015). A specialist profession, or a profession of specialists? Retrieved November 2, 2017, from Library Journal website: http://lj.libraryjournal.com/2015/03/opinion/peer-to-peerreview/a-specialist-profession-or-a-profession-of-specialists-peer-to-peer-review/#_
- Saunders, M., Lewis, P., & Thornhill, A. (2019). *Research Methods for business students* (8th ed.). Harlow: Pearson.
- Sauntson, H., & Marsh, L. (2011). Vision, values and international excellence: the "products" that university mission statements sell to students. In M. Molesworth, R. Scullion, & E. Nixon (Eds.), *The marketisation of higher education and the student as consumer* (pp. 73–85). London:

Routledge.

- Sayer, A. (1992). *Method in social science: a realist approach* (2nd ed.). London: Routledge. Sayer, A. (2000). *Realism and social science*. London: SAGE.
- Schonfeld, R. C. (2016). *Organizing the work of the research library*. Retrieved from http://www.sr.ithaka.org/wpcontent/uploads/2016/08/SR_Report_Organizing_Work_Research_Library_081816.pdf
- Schonfeld, R. C. (2018). Essential transformations [Blog post]. Retrieved January 16, 2018, from http://www.sr.ithaka.org/blog/essential-transformations/
- Shank, J. D., & Bell, S. (2011). Blended librarianship: [re]envisioning the role of librarian as educator in the digital information age. *Reference and User Services Quarterly*, *51*(2), 105–110. Retrieved from https://journals.ala.org/rusq/article/download/4025/4567
- Shapiro, S. D. (2017). Engaging a wider community: the academic library as a center for creativity, discovery, and collaboration. *New Review of Academic Librarianship*, *22*(1), 24–42. https://doi.org/10.1080/13614533.2015.1087412
- Shoebridge, M. (2005). A decade of convergence: information services at the University of Birmingham. In T. Hanson (Ed.), *Managing academic support services in universities: the convergence experience* (pp. 29–36). London: Facet.
- Shumaker, D., & Talley, M. (2009). *Models of embedded librarianship: final report*. Retrieved from https://embeddedlibrarian.files.wordpress.com/2013/04/models-of-embedded-librarianship_finalreportrev.pdf
- Simmons, M., & Corrall, S. (2011). The changing educational needs of subject librarians : a survey of UK practitioner opinions and course content. *Education for Information*, *28*(1), 21–44. https://doi.org/10.3233/EFI-2010-0890

Simons, M. (2017). Academic library metamorphosis and regeneration. Lanham, Maryland: Rowman & Littlefield.

Smithson, J. (2000). Using and analysing focus groups: Limitations and possibilities. International Journal of Social Research Methodology, 3(2), 103–119. https://doi.org/10.1080/136455700405172

Stake, R. E. (1995). The art of case study research. Thousand Oaks: SAGE.

Stark, S., & Torrance, H. (2005). Case study: key concepts. In C. Lewin & B. Somekh (Eds.), *Research methods in the social sciences* (pp. 33–40). London: SAGE.

Storey, C. (2007). Treasuring our traditions and our people: riding the wave and making a difference over the next 25 years. *Library Management*, *28*(8/9), 488–500. https://doi.org/10.1108/01435120710837774

- Stueart, R. D. (2013). *Library and information center management* (8th ed.). Santa Barbara, California: Libraries Unlimited.
- Susskind, R., & Susskind, D. (2015). *The future of the professions: how technology will transform the work of human experts*. Oxford: Oxford University Press.

Sweeney, R. T. (1994). Leadership in the post-hierarchical library. *Library Trends*, 43(1), 62–94.

- Taberner, A. M. (2018). The marketisation of the English higher education sector and its impact on academic staff and the nature of their work. *International Journal of Organizational Analysis*, *26*(1), 129–152. https://doi.org/10.1108/EL-01-2017-0019
- Tashakkori, A., & Creswell, J. W. (2007). The new era of mixed methods. *Journal of Mixed Methods Research*, 1(1), 3–7. https://doi.org/10.1177/2345678906293042
- Tashakkori, A., & Teddlie, C. (Eds.). (2003). *Handbook of mixed methods in social & behavioural research*. London: SAGE.

- Tavory, I., & Timmermans, S. (2014). *Abductive analysis: theorizing qualitative research*. Chicago: The University of Chicago Press.
- Tennant, R. (2002). Factoring in the only constant. *Library Journal*, *127*(3), 28. Retrieved from https://search-proquest-com.sheffield.idm.oclc.org/docview/57548553?accountid=13828%0A

The University of Adelaide. (2015). *Recommendations for a bold and agile University library: library of the future*. Retrieved from https://www.adelaide.edu.au/library/about/projects/lotf/Library_of_the_Future_Report_Final. pdf

- The University of Tasmania. (2015). *The University of Tasmania Library: future vision to 2025*. Retrieved from http://www.utas.edu.au/__data/assets/pdf_file/0007/619801/University-Library-Future-Vision-8-October-2015.pdf
- Tilley, N. (2018). The middle-range methodology of realist evaluation: Forty years with Realist Ray and their unintended consequences, an affectionate and unfinished middle-range story. In *Doing realist research* (pp. 15–24). Los Angeles: SAGE.
- Times Higher Education. (2013). Participation rates: now we are 50. Retrieved June 28, 2018, from https://www.timeshighereducation.com/features/participation-rates-now-we-are-50/2005873.article
- Times Higher Education. (2022). World University Rankings 2022. Retrieved July 17, 2022, from https://www.timeshighereducation.com/world-universityrankings/2022#!/page/0/length/25/sort_by/rank/sort_order/asc/cols/stats
- Tolbert, P. S., & Hall, R. H. (2016). *Organizations: structures, processes, and outcomes* (10th ed.). London: Routledge.
- Tushman, M. L., & Romanelli, E. (1985). Organizational evolution: A metamorphosis model of convergence and reorientation. *Research in Organizational Behavior*, Vol. 7, pp. 171–222.

https://doi.org/0-89232-497

- Universities UK. (2017). Patterns and trends in UK higher education. In *Universities UK website*. Retrieved from http://www.universitiesuk.ac.uk/facts-and-stats/data-andanalysis/Documents/patterns-and-trends-2017.pdf
- Verbaan, E., & Cox, A. M. (2014). Occupational sub-cultures, jurisdictional struggle and third space: theorising professional service responses to research data management. *Journal of Academic Librarianship*, 40(3–4), 211–219. https://doi.org/10.1016/j.acalib.2014.02.008
- Vincent, S., & Wapshott, R. (2014). Critical Realism and the organizational case study. In P. K. Edwards, J. O'Mahoney, & S. Vincent (Eds.), *Studying organizations using Critical Realism: a practical guide* (pp. 148–167). Oxford: Oxford University Press. Retrieved from http://www.oxfordscholarship.com/view/10.1093/acprof:oso/9780199665525.001.0001/acpro f-9780199665525-chapter-8?print=pdf
- Wadas, L. R. (2017). Mission statements in academic libraries: a discourse analysis. *Library Management*, *38*(2–3), 108–116. https://doi.org/10.1108/LM-07-2016-0054
- Wakeling, S., Rutter, S., Birdi, B., & Pinfield, S. (2018). Interlending and resource sharing in UK public
 libraries: a mixed methods study. *Journal of Librarianship and Information Science*, *50*(2), 168–
 185. https://doi.org/10.1177/0961000616637670
- Wales, T. (2018). The view from within: a personal reflection on library strategy development in three academic libraries. *New Review of Academic Librarianship*, *24*(3–4), 444–458.
 https://doi.org/10.1080/13614533.2018.1460728
- Walters, T. O. (2007). Reinventing the library: how repositories are causing librarians to rethink their professional roles. *Portal: Libraries and the Academy*, 7(2), 213–225. Retrieved from https://muse.jhu.edu/article/213625/summary

Wang, H. (2006). From "user" to "customer": TQM in academic libraries? Library Management,

27(9), 606–620. https://doi.org/10.1108/01435120610715518

- Waterman, R. H., Peters, T. J., & Phillips, J. R. (1980). Structure is not organization. *Business Horizons*, *23*(3), 14–26. https://doi.org/10.1016/0007-6813(80)90027-0
- Weaver, M. (2013). Student journey work: a review of academic library contributions to student transition and success. *New Review of Academic Librarianship*, *19*(2), 101–124.
 https://doi.org/10.1080/13614533.2013.800754
- Weber, M. (1946). Bureaucracy. In H. . Gerth & C. Wright Mills (Eds.), *From Max Weber: Essays in Sociology*. Oxford: Oxford University Press.

Webster, F. (2014). *Theories of the information society* (4th ed.). London: Routledge.

- Whitchurch, C. (2006). Who do they think they are? The changing identities of professional administrators and managers in UK higher education. *Journal of Higher Education Policy and Management*, *28*(2), 159–171. https://doi.org/10.1080/13600800600751002
- Whitchurch, C. (2008). Shifting identities and blurring boundaries: The emergence of third space professionals in UK higher education. *Higher Education Quarterly*, *62*(4), 377–396. https://doi.org/10.1111/j.1468-2273.2008.00387.x
- Whitchurch, C. (2013). *Reconstructing identities in higher education: the rise of "third space" professionals.* London: Routledge.
- Wikgren, M. (2006). Critical Realism as a philosophy and social theory in information science? *Journal of Documentation*, *61*(1), 11–22. https://doi.org/10.1108/00220410510577989
- Wilkinson, A., Hislop, D., & Coupland, C. (2016). The changing world of professions and professional workers. In A. Wilkinson, D. Hislop, & C. Coupland (Eds.), *Perspectives on contemporary professional work: challenges and experiences* (pp. 3–15). Cheltenham: Edward Elgar.

Williams, R., & Leahy, A. (2020). U21 Ranking of National Higher Education Systems 2020.

Melbourne. Retrieved from https://universitas21.com/rankings

- Wilson, K. M., & Halpin, E. (2006). Convergence and professional identity in the academic library.
 Journal of Librarianship and Information Science, *38*(2), 79–91.
 https://doi.org/10.1177/0961000606063888
- Wolff, C. (2017). Ithaka S+R US library Survey 2016. New York. Retrieved from http://www.sr.ithaka.org/wpcontent/uploads/2017/03/SR_Report_Library_Survey_2016_04032017.pdf
- Wolff, C., Rod, A. B., & Schonfeld, R. C. (2016). Ithaka S + R US Faculty Survey 2015. In *Ithaka S+R*. https://doi.org/10.3886/ICPSR34651
- Woodhead, P. A., & Martin, J. V. (1982). Subject specialization in British university libraries: a survey.
 Journal of Librarianship and Information Science, *14*(2), 93–108.
 https://doi.org/10.1177/096100068201400202
- Woolley, N., & Core, J. (2018). Putting the learner at the heart of student experience: The role of the University Library in a seven-year journey of superconvergence at Northumbria University, UK. *New Review of Academic Librarianship*, *24*(3–4), 487–518. https://doi.org/10.1080/13614533.2018.1499540
- Wynn Jr, D. E., & Williams, C. K. (2012). Principles for conducting critical realist case study research in information systems. *MIS Quarterly*, *36*(3), 787–810.
 https://doi.org/10.1016/j.ijproman.2012.11.012
- Wynne, B., Dixon, S., Donohue, N., & Rowlands, I. (2016). Changing the library brand: a case study. *New Review of Academic Librarianship*, *22*(2–3), 337–349. https://doi.org/10.1080/13614533.2016.1156000
- Xu, L., & Jahre, B. (2018). From service providers to collaborators and partners: a nondisciplinebased approach at a liberal arts college. *New Review of Academic Librarianship*, *24*(3–4), 416–

427. https://doi.org/10.1080/13614533.2018.1498795

- Yin, R. K. (2018). *Case study research and applications: design and methods* (6th ed.). Thousand Oaks: SAGE.
- Younger, J. A. (2010). Transforming research libraries: piano, piano, si va lontano. In B. I. Dewey (Ed.), *Transforming research libraries for the global knowledge society* (pp. 37–50). Oxford: Chandos.
- Zachariadis, M., Scott, S., & Barrett, M. (2013). Methodological implications of Critical Realism for mixed-methods research. *MIS Quarterly*, *37*(3), 855–880. Retrieved from https://pdfs.semanticscholar.org/5b97/6a91750cc2a2a53e616a09fc2042f50c00e6.pdf
- Zhu, L. (2011). Use of teams in technical services in academic libraries. *Library Collections, Acquisition and Technical Services*, *35*(2–3), 69–82. https://doi.org/10.1016/j.lcats.2011.03.013

9. Appendices

Appendix A – Advisory group remit

The University of Sheffield.	Subject v. functional: the relationship between
Information School	changing organisational structures and the transformation of academic libraries and the profession of librarianship

Advisory Group Information Sheet

Researchers

Catherine Hoodless (Principal Investigator) PhD Student Management Information School University of Sheffield <u>clhoodless1@sheffield.ac.uk</u> Prof. Stephen Pinfield (Supervisor) Professor of Information Services

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Dr Andrew M. Cox (Second Supervisor) Senior Lecturer Information School University of Sheffield <u>a.m.cox@sheffield.ac.uk</u>

Advisory Group remit

The Advisory Group will be made up of 3-5 professionals working within academic librarianship and higher education. The role of the Advisory Group will be to advise on the development and coordination of the PhD research project, so that the research aligns with the interests and needs of the professional community to ensure the results will be of benefit and have impact in practice.

The Group will not be asked to meet formally either face to face or virtually, but will rather act as a 'sounding board' at various stages of the project in order to provide a general strategic steer, providing input remotely via email and Skype (or equivalent). In particular, this will include advise on selection of case study sites, development of research instruments (including interview and focus group outlines and the online survey), and interpretation of the significance of findings. They will be asked, where appropriate, to use their professional networks in representing the project in various professional fora

and also advise on dissemination of research findings. However, the principal investigator will retain overall control and ability to make final decisions regarding the research project.

This is not envisaged to be a very time-consuming role, and is only likely to involve providing comments occasionally on documents and other project outputs. It will, however, provide very valuable advice to the researcher and her supervisors to help design and implement the project and disseminate its findings. In return, members of the Advisory Group will have a chance to influence the research and have access to the insights that are generated.

While the research is in progress, all members of the Advisory Group will be expected to maintain confidentiality regarding the project.

Summary of the research project

Background

In the UK, most university libraries have come to organise their academic services librarians around the structure of the academic departments of the institution they serve. However, this model first emerged at a time when the library was focused on building subject collections, and as the academic library becomes more focused on providing user-centred services and takes on a range of new responsibilities, the sustainability of the subject-based model has been questioned. In response, the organisational structures of academic libraries are changing, with some adapting and supplementing the traditional subject-based model, while others have decided to restructure around functional teams, which is an increasing trend in the UK that began with the high-profile restructure of the University of Manchester Library in 2012.

<u>Aim</u>

This study aims to build on previous Masters research to assess the relationship between organisational structural changes and the transformation of the academic library, with a particular emphasis on exploring and explaining how functional teams are being used in university libraries in comparison to subject-based teams to provide teaching, learning and research support to users. In doing so, the way in which the library's relationship with users, partners and the wider organisation, as well as the impact on librarianship as a profession, will be investigated.

Objectives

- 1. To discover how the move towards functional library structures affects the skills, expertise and responsibilities of staff, as well as the services available to users, and how the changes impact on the culture of the library in comparison with predominantly subject-based structures.
- 2. To analyse how library staff and senior managers perceive their library structures to align the library with the strategic context in which they are working and how they perceive the changes to library structures relate to the overall changes occurring in Higher Education.

- 3. To assess if there are common attitudes amongst university library staff and senior managers towards the effectiveness of library structure, as they relate to the subject-functional question, in positioning the library to engage with research and learning.
- 4. To explore what librarians and senior managers of academic libraries identify as the impact of increasing specialisation and use of functional roles on librarianship as a profession.
- 5. To evaluate trends in the use of functional teams over subject teams and develop a typology of academic library organisational structures.

Methodology

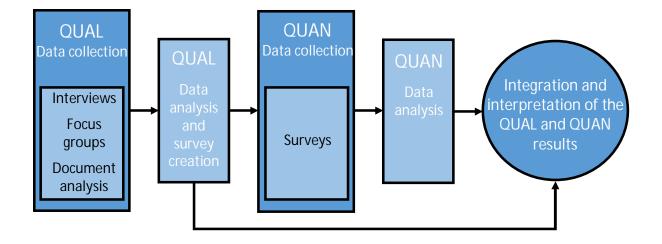
The proposed methodology for this research project is an exploratory, sequential mixed-methods design, where there are be two distinct phases: a primary qualitative strand to explore the research questions, followed by a quantitative strand in order to test if the results of the qualitative research can be generalised.

The primary qualitative strand of this research will consist of a multiple, comparative case study approach, with the case studies being made up of academic libraries with various organisational structures along the functional-subject spectrum. One case will be selected that corresponds to each of the following categories of academic library:

- 1. Operating within a research-intensive university and has a functional-based structure, which includes an Academic Engagement (or equivalent) team
- 2. Operating within a research-intensive university and has a functional-based structure, which does not include an Academic Engagement (or equivalent) team
- 3. Operating within a research-intensive university and has a subject-based structure
- 4. Operating within a teaching-led university and has a functional-based structure, which includes an Academic Engagement (or equivalent) team
- 5. Operating within a teaching-led university and has a functional-based structure, which does not include an Academic Engagement (or equivalent) team
- 6. Operating within a teaching-led university and has a subject-based structure

Once the cases to be studied have been identified and relevant permissions gained, the data collection during the initial qualitative phase of the research will consist of semi-structured interviews and focus groups with university librarians, as well as semi-structured interviews with line managers and senior managers, at each of the case study libraries. In addition, relevant organisational documents, such as strategy documents and structure charts, will be collected at the case study sites.

All of the data collected in the case study sites will then be subjected to a thematic analysis to draw out key themes. The results of the analysis of the qualitative case studies will then be used to create a quantitative survey, which is likely to have three versions tailored to staff at different levels within the organisation; one for librarians, one for line managers and one for senior managers. The surveys are likely to take the form of electronic surveys which will be sent out to via electronic mailing lists to librarians and professionals working in academic libraries. The survey will consist of closed questions to allow for qualitative data analysis for trends. The final phase of the data analysis of this research will then involve integration of the separate qualitative and qualitative analyses in order to assess how the results address the original research aims and objectives and draw conclusions. The below diagram visually illustrated the research design (including qualitative and quantitative phases of data collection, and integrative analysis):



Appendix B – Email invitation to Heads of Library Service of the case study sites

Dear [insert name],

My name is Catherine Hoodless and I am a PhD student studying at the Information School of the University of Sheffield. I am contacting you to invite you to allow the library at the *[insert name of university]* to participate as a case study in my research into academic library structures that will help participating institutions and the sector as a whole understand more fully the benefits of functional vs subject structures. This PhD research project is being supported by an Advisory Group consisting of David Prosser, Executive Director of RLUK; John Cox, University Librarian at the National University of Ireland, Galway; and Dr Judith Keene, University Librarian at the University of Worcester and Chair of the SCONUL Transformation Strategy Group. They are providing advice on the development and co-ordination of the research to ensure that it aligns with the interests and needs of the professional community and will be of benefit to the profession.

The aim of my research is to build on my previous Masters research to assess the relationship between organisational structural changes and the transformation of the academic library, with a particular emphasis on exploring and explaining how functional teams are being used in university libraries in comparison to subject-based teams to provide teaching, learning and research support to users. In doing so, the way in which the library's relationship with users, partners and the wider organisation, as well as the impact on librarianship as a profession, will be investigated.

For my research I am undertaking an exploratory, sequential mixed methods design. The primary qualitative strand of this research will consist of a multiple, comparative case study, with the case studies being made up of academic libraries with various organisational structures along the functional-subject spectrum. For each case study, I will arrange to visit the site over a few days, in which time I will be asking to conduct interviews lasting up to 60 minutes with the Head of Library Service and senior managers/line managers with responsibility for academic support services, as well as interviews and focus groups with librarians. This will amount to around 6-8 interviews and focus groups in total. In addition, I would also be asking to be provided with relevant documents, such as structure charts, strategic plans and job descriptions.

I have identified the library at the *[insert name of university]* as having a *[insert type of structure]*. If this accurate, I feel your library would provide very interesting and valuable insights for my research and I would be very grateful if you would allow me to use your library as one of the case study sites.

Since I am aiming for this research to have benefit to the profession, as well as producing my PhD thesis, I hope to disseminate the results of my research further in journal articles, presentations, conferences and other publications. If you agree to take part, your institution and the staff members who decide to participate will not be named in my thesis and any associated publications, and every effort will be made to provide confidentiality and anonymity. This project has been ethically approved via the University of Sheffield's Ethics Review Procedure, as administered by the Information School.

If you would be willing for your library to take part, please contact me so we can discuss the research further and arrange a convenient time for me to visit your library to conduct my case study.

Should you require further information or clarification about any aspect of this project, please contact me, Catherine Hoodless (e-mail: <u>clhoodless1@sheffield.ac.uk</u>) or my supervisors, Professor Stephen Pinfield (e-mail: <u>s.pinfield@sheffield.ac.uk</u>) and Dr Andrew M. Cox (<u>a.m.cox@sheffield.ac.uk</u>).

Appendix C – Interview and Focus Group Schedules

Appendix C.1 - Interview schedule

Introduction

- Thank you for taking part
- Explanation of the study and what is mean by the terms 'functional' and 'subject' approach in the context of this research:

For my research I am focusing on the part of the organisational structure of the library that provides academic support services. I am using the term subject-based to describe any structure where academic support in the library is predominantly provided by librarians who are assigned a subject or a group of subjects to support. The role of these librarians encompasses a range of activities, which include roles in engagement, teaching and some research support for their subjects (even if they are also supported by some functional roles, particularly around research support). This is in contrast to functional structures where this type of librarian role has been separated and library staff focus on one role in either engagement, teaching or research.

- Any questions regarding the research?
- Ethics consent form (1 each) any questions?
- Ask permission to record the interview

Opening question

a) Please could you describe your current role and your main responsibilities
 b) How long have you been in this role?

c) Please can you briefly describe the career path that brought you to this current role?

The current organisational structure

2. Please can you describe how your library is structured and how your role fits into that structure?

Prompts: Who is responsible for academic engagement? Who is responsible for teaching and learning support? Who is responsible for research support?

3. Would you identify your current structure as functional- or subject-based?

Prompts: Are there any roles with subject responsibilities? Are there any purely functional roles?

4. How effective is your current organisational structure? What are the main advantages and disadvantages?

Prompts: Why do you think your organisational structure works (or doesn't work)?

- 5. a) In what ways has the library's organisational structure changed in the last 10 years with regard to academic support services?
 b) Why do you think these changes made?
 c) Are any new services being provided as a result of these changes to the structure?
 d) Are there any ways you think the organisational structure could be improved?
- 6. How have the changes to the library's organisational structure that you previously described been received by library staff and stakeholders (including university leadership, other university staff and students)?

Prompts:

Do you think the changes made to the library's organisational structure have impacted on the library's image and how the library is perceived by stakeholders?

- 7. How does the organisational structure of the library fit in with the vision and strategy for the library and the overall university?
- 8. *How has the organisational structure of the library been affected by its position within the overall university?

Prompts:

Is the library operating in a converged/super-converged service? How has this affected the libraries priorities and structure? Who does the library report to? How has this affected the libraries priorities and structure? How does your role link to the wider university?*

9. How has the organisational structure of the library been affected by changes and trends in higher education?

General questions on organisational structures

10. How important do you consider choice of organisational structure to be when attempting to reposition/transform the academic library away from its traditional image?

Prompts: Do you think the organisational structures of academic libraries need to change in order for them to reposition themselves? How important is the organisational structure to the success of the library? How often do you think the organisational structure needs to be changed? 11. To what extent do you think the local context is important when determining the right structure for a particular institution?

Prompts:

Why do you think some academic libraries are choosing to stick with the subject-librarians model and others aren't? Why do you think different models of organisational structure are emerging? Do you think structures will continue to diverge? Do you think a particular structure suits a particular type of institution? Are Russell Group university libraries really that different?

Functional vs subject structures

12. What are your personal experiences of working in libraries with subject and functional structures?

Prompts: If you have worked in both, how do they compare? If you haven't worked in both, how do you think it would compare?

13. What are your opinions regarding the increasing use of functional structures in academic libraries?

Prompt:

Do you think libraries with functional structures are doing anything radically different? Do you think functional/subject structures suit a particular type of institution? Are academic libraries diverging?

14. What do you see as the specific advantages and disadvantages of subject-based structures?

Prompts:

What are the benefits of subject teams? What (do you think) are the disadvantages/challenges of working in/managing subject teams? It has been implied by some that subject librarians are "a problem that needs fixing", how much do you agree with this?

Do you think it is important that at least some roles have specific subject responsibilities?

15. What do you see as the specific advantages and disadvantages of functional-based structures?

Prompts:

What are the benefits of functional team?

What (do you think) are the disadvantages/challenges of working in/managing functional teams? There are concerns that a functional structure weakens academic liaison, what are your opinions on this?

In some functional structures, there is often more mixing of other professions with librarians in teams with the same roles, what impact do you think this has?

16. Do you think a functional structure promotes a different organisational culture to a subjectstructure?

Prompts:

How does the culture of your library compare to other libraries you have worked in that have had different organisational structures?

17. It has been suggested that the subject-based approach shows a risk-adverse, 'un-innovative' culture in many HE libraries, how much do you agree with this?

Prompts:

Are there any elements of your structure that you would describe as being innovative and why?

Impact on Librarianship

18. Do you think library staff require different skills and behaviours depending on the type of structure they are working in?

Prompts:

Are different skills needed for to work in the different teams in a functional structure? Do they suit different behaviours/people? Are different skills and behaviours needed to work in the subject roles vs the functional roles? How easy could you move between professional roles? Have any staff required extra training/reskilling?

19. How do you think that the increasing numbers of functional library roles that are being incorporated into academic library structures are impacting on the profession of librarianship?

Prompts:

What impact do you think having an increasing number of diverse roles has? Are there any roles that could be filled from outside the profession? Are there any roles that require a librarianship qualification? Do you have any fears around de-professionalisation?

Closing question

- 20. Thank you very much for giving up your time to help with this research. Is there anything else you would like to add regarding the future of academic library organisational structures and changes to professional academic librarianship roles?
 - N.B. *Question 8 was excluded from the interviews with non-managerial staff*

Appendix C.2 - Focus group schedule

Introduction

Good morning and welcome. I just want to take this opportunity to thank you all for agreeing to take part in this focus group.

My name is Catherine Hoodless and I am currently doing a PhD into the changing nature of organisational structures in academic libraries, in particular I am exploring how functional teams are being used in university libraries in comparison to subject-based teams to provide teaching, learning and research support to users.

I am using the term subject-based to describe any structure where academic support in the library is predominantly provided by librarians who are assigned a subject or a group of subjects to support. The role of these librarians encompasses a range of activities, which include roles in engagement, teaching and some research support for their subjects (even if they are also supported by some functional roles, particularly around research support). This is in contrast to functional structures where this type of librarian role has been separated and library staff focus on one role in either engagement, teaching or research.

You have all been invited to take part in this focus group because I am wanting to tap into your experiences of working in the organisational structure in place in this academic library, as well as any opinions you might have regarding the general changes happening to the organisational structures of academic libraries. Even if you haven't working in this library very long, haven't got experience of other academic library organisational structures or if you have come to work in academic libraries from another profession, there may be a couple of questions you feel you can't answer, but your experiences and opinions are still very relevant and I would like to hear them as I want to gain a wide range of perspectives on these issues.

Just some ground rules for the focus group now:

There are no wrong answers.

I expect that you will have differing points of view. Please share your point of view even if it differs from what others have said.

I am recording the session because I don't want to miss any of your comments. No names will be included in any reports. Your comments are confidential.

Don't feel like you have to respond me all the time. The first question is the only one where I will go round the table and get you to answer individually. Following this questions, if you want to follow up on something that someone else has said, you want to agree, or disagree, or give an example, feel free to do that. Feel free to have a conversation with one another about these questions.

I am here to ask questions, listen, and make sure everyone has a chance to share. I am interested in hearing from each of you. So, if you aren't saying much, I may call on you. We just want to make sure all of you have a chance to share your ideas.

Focus group questions (with approximate timings)

	Question	Minutes
	Opening question	
1.	Please tell us your name, job title and briefly describe your role and responsibilities	5
	Skills and Behaviours	
2.	Please write down what you think are the main 3 skills/behaviours needed for your role (feedback and discuss)	5
3.	Of these skills/behaviours discussed, which would you say is the most important?	10
	The current organisational structure of the library	
4.	Have any significant changes been made to the library's organisational structure recently and why do you think these were made?	10
5.	What are your opinions regarding the current organisational structure of the library and its effectiveness? Prompts:	10
	What challenges do you face working within your current organisational structure? How do you think the structure could be improved?	
6.	Would you identify the current organisational structure as being functional or subject-based?	5
	Functional and subject-based structures	
7.	What are your personal experiences of working in libraries with subject and functional structures and how do they compare?	10
8.	What do you see as the specific advantages and disadvantages of subject-and functional-based structures?	10
	<u>Prompts:</u> Do you agree with these terms? Are these terms you were familiar with before?	
	Impact on Librarianship	
9.	Do you think library staff require different skills and behaviours depending on the type of structure they are working in?	10
	<u>Prompts:</u> Are different skills needed for to work in the different teams in a functional structure? Do they suit different behaviours/people? Are different skills and behaviours needed to work in the subject roles vs the functional roles?	
	How easy do you think you could move between professional roles? Are there any roles you don't feel you could fill?	
10.	Do you think this would require extra/training? Have you noticed a change in the skills you need? How do you think that the increasing numbers of functional library roles that are being incorporated into academic library structures are impacting on the profession of librarianship?	10
	Prompts: What impact do you think having an increasing number of diverse roles has? If you have come in from outside the profession, what have your experiences been? What impact you think the increase number of people working in libraries from outside the profession is having?	
	Are there any roles that require a librarianship qualification? Do you have any fears around de-professionalisation?	
	Closing question	
11.	What type of structure would you prefer to work in?	5
		Total = 90

Appendix D - Breakdown of data collected at each case study

Appendix D.1 – Case Study A data collection

Interviews

Interview Code	Type of role	Library-related qualification? (Y/N)	Duration (minutes)
A.INT1.SM	Senior Manager	Y	82
A.INT2.SM	Senior Manager (collections and research focus)	Y	86
A.INT3.SM	Senior Manager (teaching and learning focus)	Y	39
A.INT4.L	Subject Librarian type role	Y	60
A.INT5.M	Team Manager (research focus)	Y	68
A.INT6.L	Subject Librarian type role	Y	44
A.INT7.M	Team Manager (academic skills focus)	N	44

Focus Group

Focus Group Code	Participant Code	Type of role	Library-related qualification? (Y/N)	Duration (minutes)
A.FG	A.FG.1	Subject Librarian type role	Y	78
	A.FG.2	Subject Librarian type role	Y	
	A.FG.3	Subject Librarian type role	Y	
	A.FG.4	Subject Librarian type role	Y	
	A.FG.5	Subject Librarian type role	Y	
	A.FG.6	Subject Librarian type role	N	
	A.FG.7	Subject Librarian type role	Y	
	A.FG.8	Subject Librarian type role	N	
	A.FG.9	Subject Librarian type role	N	
	A.FG.10	Subject Librarian type role	N	

Type of document	Number
Library's overall structure chart (current)	1
Library strategy documents	1
University strategy documents	1
Job descriptions	5

Appendix D.2 – Case Study B data collection

Interviews

Interview Code	Type of role	Library-related qualification? (Y/N)	Duration (minutes)
B.INT1.SM	Senior Manager	Y	60
B.INT2.SM	Senior Manager	Y	82
B.INT3.M	Team Manager (subject librarian type team)	Y	65
B.INT4.M	Team Manager (subject librarian type team)	Y	60
B.INT5.L	Subject Librarian type role	Y	50
B.INT6.L	Subject Librarian type role	Y	43
B.INT7.L	Research focused role	Y	69

Focus Group

Focus Group Code	Participant Code	Type of role	Library-related qualification? (Y/N)	Duration (minutes)
B.FG	B.FG.1	Subject Librarian type role	Y	87
	B.FG.2	Subject Librarian type role	Y	
	B.FG.3	Subject Librarian type role	Y	
	B.FG.4	Subject Librarian type role	Y	
	B.FG.5	Subject Librarian type role	Y	
	B.FG.6	Subject Librarian type role	Y	
	B.FG.7	Subject Librarian type role	Y	
	B.FG.8	Subject Librarian type role	Y	

Type of document	Number
Library's overall structure chart (current)	1
Library's mission statement	1
University strategy documents	1
Job descriptions	3

Appendix D.3 – Case Study C data collection

Interviews

Interview Code	Type of role	Library-related qualification? (Y/N)	Duration (minutes)
C.INT1.SM	Senior Manager	Y	72
C.INT2.L	Engagement focused role	Y	53
C.INT3.M	Team Manager (engagement focus)	Y	46
C.INT4.L	Teaching and Learning focused role	Y	91
C.INT5.M	Team Manager (research focus)	Y	52
C.INT6.M	Team Manager (engagement focus)	Y	48
C.INT7.M	Team Manager (teaching and learning focus)	N	46

Focus Group

Focus Group Code	Participant Code	Type of role	Library-related qualification? (Y/N)	Duration (minutes)
C.FG	C.FG.1	Teaching and learning focused role	Y	67
	C.FG.2	Research focused role	Y	
	C.FG.3	Teaching and learning focused role	Y	
	C.FG.4	Engagement focused role	Y	
	C.FG.5	Engagement focused role	Y	

Type of document	Number
Library's overall structure chart (current)	1
Organisational structure of academic services section of the library	1
Library's organisational structure (pre-restructure)	1
University's overall structure chart	1
University strategy documents	2
Library restructuring documents	1
Job descriptions	9

Appendix D.4 – Case Study D data collection

Interviews

Interview Code	Type of role	Library-related qualification? (Y/N)	Duration (minutes)
D.INT1.SM	Senior Manager	N	55
D.INT2.SM	Senior Manager	Y	70
D.INT3.M	Team Manager (teaching and learning focus)	Y	79
D.INT4.M	Team Manager (research focus)	Y	62
D.INT5.L	Teaching and learning focused role	Y	75
D.INT6.L	Research focused role	Y	59

Focus Group

Focus Group Code	Participant Code	Type of role	Library-related qualification? (Y/N)	Duration (minutes)
D.FG	D.FG.1	Research focused role	Y	93
	D.FG.2	Research focused role	Y	
	D.FG.3	Teaching and learning focused role	Y	
	D.FG.4	Teaching and learning focused role	Y	
	D.FG.5	Teaching and learning focused role	Y	
	D.FG.6	Teaching and learning focused role	Y	
	D.FG.7	Research focused role	Y	

Type of document	Number
Library's overall structure chart (current)	1
Library strategy documents	1
Library annual report	1
University structure chart	1
University strategy documents	2
Job descriptions	4

Appendix D.5 – Case Study E data collection

Interviews

Interview Code	Type of role	Library-related qualification? (Y/N)	Duration (minutes)
E.INT1.SM	Senior Manager	Y	58
E.INT2.SM	Senior Manager (teaching and learning focus)	N	38
E.INT3.SM	Senior Manager (research and collections focus)	Y	77
E.INT4.L	Teaching and learning focused role	Y	44
E.INT5.L	Teaching and learning focused role	N	85
E.INT6.L	Data focused role	Y	51
E.INT7.M	Team Manager (collection focused)	Y	64

Focus Group

Focus Group Code	Participant Code	Type of role	Library-related qualification? (Y/N)	Duration (minutes)
E.FG	E.FG.1	Teaching and learning focused role	Y	65
	E.FG.2	Collection engagement role	N	

Type of document	Number
Library's overall structure chart (current)	1
University strategy documents	1
Job descriptions	4

Appendix D.6 – Case Study F data collection

Interviews

Interview Code	Type of role	Library-related qualification? (Y/N)	Duration (minutes)
F.INT1.SM	Senior Manager	Y	65
F.INT2.SM	Senior Manager	Y	90
F.INT3.SM	Senior Manager (academic services focus)	Y	60
F.INT4.L	Teaching and learning focused role	Y	45
F.INT5.L	Research focused role	N	36
F.INT6.L	Collections engagement focused role	Y	26
F.INT7.SM	Senior Manager (collections focus)	Y	60

Focus Group

Focus Group Code	Participant Code	Type of role	Library-related qualification? (Y/N)	Duration (minutes)
F.FG	F.FG.1	Teaching and learning focused role	Y	80
	F.FG.2	Systems focused role	N	
	F.FG.3	Teaching and learning focused role	Y	
	F.FG.4	Teaching and learning focused role	N	
	F.FG.5	Collection engagement focused role	Y	
	F.FG.6	Research focused role	Y	

Type of document	Number
Library's overall structure chart (current)	1
Library annual report	1
University strategy	1
University structure chart	1
Job descriptions	8

Appendix E – Participant Information Sheet and Consent Form

Appendix E.1 – Participant Information Sheet for interviews and focus groups

The University of Sheffield.	Subject v. functional: the relationship between
Information School	changing organisational structures and the transformation of academic libraries and the profession of librarianship

Participant Information Sheet

You are being invited to take part in a research project. Before you decide whether or not to participate, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part. Thank you for reading this.

Researchers

Catherine Hoodless (Principal Investigator) PhD Student Management Information School University of Sheffield <u>clhoodless1@sheffield.ac.uk</u> Prof. Stephen Pinfield (Supervisor) Professor of Information Services

Information School University of Sheffield <u>s.pinfield@sheffield.ac.uk</u>

Purpose of the research

This research is being conducted for a PhD. The aim of the study is to assess the relationship between organisational structural changes and the transformation of the academic library, with a particular emphasis on exploring and explaining how functional teams are being used in university libraries in comparison to subject-based teams to provide teaching, learning and research support to users. In doing so, the way in which the library's relationship with users, partners and the wider organisation, as well as the impact on librarianship as a profession, will be investigated.

Why have you been chosen?

This stage of the research uses case studies of academic libraries in the UK that have a variety of organisational structures along the functional-subject spectrum and include both research-intensive and teaching-led universities. You have been invited to take part because you hold a managerial or staff position within one of the identified case study sites.

Do you have to take part?

It is up to you to decide whether or not to take part. If you do decide to take part, you will be given this information sheet to keep (and be asked to sign a consent form). Up until the completion of the data analysis you can decide to withdraw and you do not have to give a reason. After this time, withdrawal will not be possible since the data will have been anonymised and integrated making separation and exclusion of specific data impossible. If you wish to withdraw from the research, please contact the Principle Investigator, Catherine Hoodless.

What will you be asked to do?

You will be asked to take part in an interview and/or focus group each of which will last no longer than 90 minutes in which you will be asked to discuss the organisational structure of your library and how this impacts on the skills, expertise and responsibilities of yourself and other staff working within the structure, as well as how you perceive this to relate to changing strategic priorities of the library and the overall transformation of academic libraries. You will also be asked your opinions on functional and subject based teams, and the impact of changes to the organisational structures of academic libraries on librarianship as a profession.

Will I be recorded, and how will the recorded media be used?

If you give your consent, the interview and/or focus group will be audio recorded. These recordings will then be used to produce transcriptions of the interviews/focus groups. The audio recordings made during this research will be used only for analysis and quotes from them will be used for illustration in the PhD thesis, written publications, conference presentations and lectures. No other use will be made of them without your written permission, and no one outside the project will be allowed access to the original recordings.

What are the possible disadvantages and risks of taking part in the research?

The risks of participating are the same as those experienced in everyday life.

Your identity and the identity of your institution will be anonymized. However, there is the risk that you could be identified from your comments, especially if they relate to situations or experiences unique to your institution.

What are the possible benefits of taking part?

Whilst there are no immediate benefits for those people participating in the project, it is hoped that this work will be of professional interest to the academic library community, and the results of this investigation could potentially contribute to the development of university library structures in the future.

Will my participation be confidential?

Each audio recording and transcript will be assigned a random number, and your name will not be attached to the data. Also, any reference to a particular university will be anonymized, and information that is likely to point to particular individuals/organisations will be removed from any extracts of interviews/focus groups used. However, while every effort will be made to maintain confidentiality and anonymity, we cannot guarantee that your statements will not be traceable to you.

What is the legal basis for processing my personal data?

According to data protection legislation, we are required to inform you that the legal basis we are applying in order to process your personal data is that 'processing is necessary for the performance of a task carried out in the public interest' (Article 6(1)(e)). Further information can be found in the University's Privacy Notice <u>https://www.sheffield.ac.uk/govern/data-protection/privacy/general</u>.

What will happen to the data collected, and the results of the research project?

The collected data will be anonymised and no one outside the project will be allowed access to the original recordings. The anonymised data will be analysed for inclusion in a PhD thesis, as well as related journal article, conference proceedings, presentations and lectures. The data will be stored on the researcher's password-protected personal computer and backed up to the Information School's research server. After any subsequent publications, the data will be destroyed, unless a publisher's data management policy requires the anonymised data to be made public upon request.

Who is organising and funding the research?

This research is being funded by a Faculty of Social Sciences, Doctoral Academy Scholarship from the University of Sheffield.

Who is the Data Controller?

The University of Sheffield will act as the Data Controller for this study. This means that the University is responsible for looking after your information and using it properly.

Who has ethically reviewed the project?

This project has been ethically approved via the University of Sheffield's Ethics Review Procedure, as administered by the Information School.

What if something goes wrong and I wish to complain about the research?

In the first instance, if appropriate, you should contact the Principal Investigator or the Supervisor if you wish to raise a complaint. However, if you feel your complaint has not been handled to your satisfaction please contact Dr Paul Reilly, Research Ethics Coordinator for the Information School (<u>ischool_ethics@sheffield.ac.uk</u>) or the Head of Department, Prof Peter Bath (<u>p.a.bath@sheffield.ac.uk</u>) who will then escalate the complaint through the appropriate channels.

If the complaint relates to how your personal data has been handled, information about how to raise a complaint can be found in the University's Privacy Notice: <u>https://www.sheffield.ac.uk/govern/data-protection/privacy/general</u>.

Who do you contact for further information?

For further information about the research project, please contact the Principal Investigator or the Supervisor on the contact details at the top of this Information Sheet.

Thank you for taking part in the project

Appendix E.2 – Consent form for interviews and focus groups

Subject v. functional: the relationship between changing organisational structures and the transformation of academic libraries and the profession of librarianship

Consent Form

Please tick the appropriate boxes	Yes	No
Taking Part in the Project		
I have read and understood the project information sheet or the project has been fully explained to me. (If you will answer No to this question please do not proceed with this consent form until you are fully aware of what your participation in the project will mean.)		
I have been given the opportunity to ask questions about the project.		
I agree to take part in the project. I understand that taking part in the project will include being interviewed/participating in a focus group (delete as appropriate)		
I agree to having the interview/focus group (delete as appropriate) audio recorded and understand that only authorised researchers involved in the research project will have access to these recordings.		
I understand that my taking part is voluntary and that I can withdraw from the study before the completion of the data analysis; I do not have to give any reasons for why I no longer want to take part and there will be no adverse consequences if I choose to withdraw.		
How my information will be used during and after the project		
I understand my personal details such as name, phone number, address and email address etc. will not be revealed to people outside the project.		
I understand and agree that my words may be quoted in publications, reports, web pages, and other research outputs. I understand that I will not be named in these outputs unless I specifically request this.		
I understand and agree that other authorised researchers will have access to this data only if they agree to preserve the confidentiality of the information as requested in this form.		
I understand and agree that other authorised researchers may use my data in publications, reports, web pages, and other research outputs, only if they agree to preserve the confidentiality of the information as requested in this form.		
I give permission for the anonymised data that I provide to be made public upon request, if a publisher's data management policy requires		
So that the information you provide can be used legally by the researchers		
I agree to assign the copyright I hold in any materials generated as part of this project to The University of Sheffield.		

Name of participant [printed]	Signature	Date

Name of Researcher [printed] Signature

Date

Project contact details for further information:

Catherine Hoodless (Principal Investigator)	Prof. Stephen Pinfield (Supervisor)	
PhD Student	Professor of Information Services	
Management		
Information School	Information School	
University of Sheffield	University of Sheffield	
clhoodless1@sheffield.ac.uk	s.pinfield@sheffield.ac.uk	

Note: Further information, including details about how and why the University processes your personal information, how we keep your information secure, and your legal rights (including how to complain if you feel that your personal information has not been handled correctly), can be found in the University's Privacy Notice <u>https://www.sheffield.ac.uk/govern/data-protection/privacy/general</u>.

If you have any difficulties with, or wish to voice concern about, any aspect of your participation in this study, please contact Dr Paul Reilly, Research Ethics Coordinator, Information School, The University of Sheffield (<u>ischool_ethics@sheffield.ac.uk</u>), or the Head of Department, Prof. Peter Bath (<u>p.a.bath@sheffield.ac.uk</u>)

Appendix F – Final codebook with themes

Codes	Sub-codes
Balancing subject and functional	Functional roles in subject structures
	Functional structures
	Hybrid structures
	"No one size fits all"
	Matrix structures
	Splitting roles and responsibilities
	Subject structures
	Subject alignment
	Too functional
Boundaries between different teams	Clarity of roles
	Crossover between teams
	Cross-team working
	Differences/tension between library teams
	Porous boundaries
Changing role of academic libraries	Academic skills
	Blurring of boundaries with other professional services
	Changes to collection management
	Establishing the role and boundaries of the library
	Need for clear vision
	Need for libraries to change
	New services
	Research support
Common challenges	Career paths/career progression
	Duplication of work
	Overloaded staff
	Silos and communication problems
	Single points of failure
Relationship with academics	Named contacts
Relationship with academics	Reliance on previous connections with academics
Image of the library	Academic vs student focused
Image of the library	
	Changing image
	Standing out from other professional services
	Traditional image
	Visibility of services
Impact on librarianship/librarians	Changing mindsets
	Core librarianship values
	Deprofessionalisation
	Deskilling
	Enjoyment
	Grief over loss of subject librarian roles
	Professional identity
	"Proper Librarians"
Incremental changes vs formal	Communicating change
restructures	Disruption and time to "bed in"
	Gradual change
	Job descriptions not matching
	ן זטט עבארוףנוטווא ווטג ווומנטווווץ

	Online staff
	Optimising staff
	Reasons to restructure around functional teams
	Reviewing structures and roles
	Risk
	Stakeholder reactions
Integration of library services	
Judgements	Advantages
	Challenges
	Negative
	Positive
Key quotes	
Library context	Budget/resources
	Current staff
	Leadership
	Library building and location
	"Not a blank sheet of paper"
	Organisational culture
Managerialism	Adding value
	Customer focus
	Demonstrating impact
	Efficiency/consistency/standardisation
	Faceless service
	Innovation
	Loss of value
	Marketing
	Quality vs quantity
	Transactional approach
"Not traditional subject librarians"	
Other professionals working in libraries	Learning Developers/Learning Technologists
other professionals working in indianes	Mixing professionals
	Respecting professional differences
	Staff with research experience/PhDs
	Teaching professionals
	Tension between different professions
Ownership/Empowerment/Ereedem	
Ownership/Empowerment/Freedom	Competing priorities
Problems with Subject Librarians	Competing priorities
	Barriers to change "Jack-of-all-trades"
Qualifications and skillasts	
Qualifications and skillsets	Need for librarianship qualification
Chaption/factor/autority	Teaching qualifications
Specialisation/focus/expertise	Concerts comment
Tailoring and personalisation	Generic support
	Subject knowledge
	"Subjects not that different"
Team working	
Wider university context	Alignment with strategy
	Centralisation
	Changes to student population
	Jurisdictional boundaries
	Library structured with other student services
	Marketisation

Perception of the library/librarians
University restructure

Appendix G – Summary of each case study

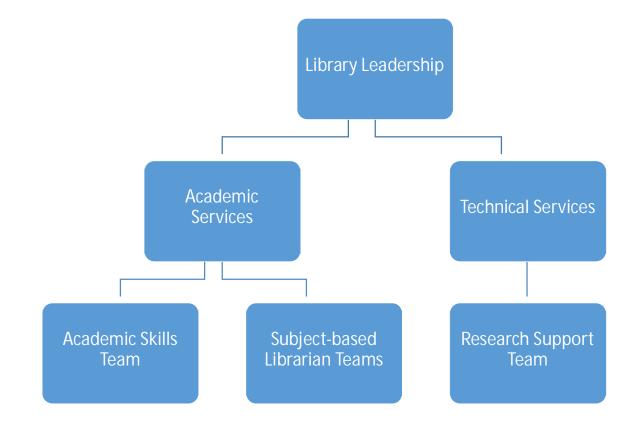
Appendix G.1 Overview of case studies

	Case Study A	Case Study B	Case Study C	Case Study D	Case Study E	Case Study F
Type of institution	Pre-92 (Russell Group)	Post-92	Pre-92 (Russell Group)	Post-92	Pre-92	Post-92
Category of organisational structure	Predominantly subject-based	Predominantly subject-based	Functional structure with a formal subject element	Functional structure with a formal subject element	Functional structure with no formal subject	Functional structure with no formal subject
Where does the library fit into the institution's structure	Student-focused directorate	Student-focused directorate	Student-focused directorate	Separately structured	Separately structured	Super-converged
Does the Head of Service have a library qualification?	Yes	Yes	Yes	No	Yes	Yes
Number of library sites	5	1	6	3	1	4
Any subject specific site libraries	Yes	No	Yes	No	No	Yes
Is there a separate engagement-type role/team?	No	No	Yes	No	No	Yes

Is there a separate research support role/team?	Yes	Yes	Yes	Yes	Yes	Yes
Academic skills structured in the library	Yes	No	Yes	Yes	Yes	Yes
Any professional academic services role where a library qualification is an essential in the job description	Yes	Yes	No	Yes	No	No
Is a qualification in the subject(s) supported in the role required?	No	No	No	No	N/A	N/A
Do any professional library staff work on frontline desks	No	Yes	No	No	No	No
Did the restructure involve redundancies	N/A	N/A	No	No	Yes	Yes
Did staff have to formally reapply for jobs during the restructure	N/A	N/A	No	No	Yes	Yes

Appendix G.2 - Case study A summary

This academic library was in a pre-92, Russell Group university with a strong research focus and, while changes had been made to the structure that included the creation of some functional roles, the library had strongly retained its subject-based approach to structuring its academic services. The diagram below provides a simplified version of this library's structure:



Institutional and Library context

In the overall University structure, the Library was in a directorate with other studentfocused professional services and prior to data collection a team focusing on academic skills had moved into the Library. In addition, while not officially part of the Library, the Head of Service also had responsibility for a team that focused on developing the learning and teaching practice of university staff.

Approach to changing the Library's structure

The structure was considered to have evolved gradually by the senior managers, and the fact that the Library did not appear to have undergone any huge budget cuts or received other pressures from within the University to make radical changes had facilitated this approach. This incremental approach to developing and changing the organisational structure, therefore, involved regularly reviewing the structure and rearranging the current staff to fulfil changing needs as the opportunities arise, since it was clear that while the Library had not undergone any severe budget cuts it was unlikely they would be allowed extra funding for staff. New posts that were created in the Library were paid for by funds external to the Library.

Teams in the structure

In terms of the subject element of the structure, there was one division of the Library focusing on academic services. This contained a subject-based team, which consisted of Librarians and Library Assistants who were structured into Faculty Teams. The Faculty Teams provided engagement, teaching, learning and some research support for their respective Faculties, with the Librarians all supporting a wide range of subjects within their Faculties. Some Faculty Teams also had additional responsibilities for managing the running of smaller, Faculty libraries. There had also been clear efforts to address the common criticism of subject-based librarians being overloaded, with one of the main attempts being the splitting of responsibilities between two different subject-based librarian roles. The Faculty Teams consisted of Librarians on two different pay grades: a senior role and an assistant role. The assistant role had been introduced as a developmental position, with the aim of providing a clear path of promotion for staff. The senior librarian roles in each Faculty Team line managed the assistant librarian roles, with the intention that this more experienced professional could *"develop and empower the next cohort" (C1.INT1.M*).

Significantly, in the job descriptions a librarianship or information science qualification was listed as essential for the senior librarian role, but only desirable for the assistant librarian role.

However, at the time of data collection, the staff in both roles all had librarianship qualifications. For both roles, a teaching qualification was listed as desirable in the job description, and all the librarians either had or were working towards a recognised teaching qualification.

There was a differentiation in terms of responsibilities as well between the senior and the assistant librarian roles, with the senior role having a more strategic and engagement focus, while the assistant role was predominantly focused on teaching, for both undergraduates and postgraduates. The assistant librarian role also rotated between the different Faculty teams to give the staff experience of supporting different subjects. Another distinction between the two roles was that the remit of the senior role included collection management and budgetary responsibilities, whereas in comparison the job description of the assistant role did not include such duties. While some of the responsibility for collection management had been given to the technical division of the library, for example renewals and meeting with external vendors, or was now being achieved using information systems, such as those providing reading list management systems and formula-driven purchasing, collection management was still a large part of the senior librarians' role.

Despite the general perception being that they have maintained a subject approach to academic services, this case study site had incorporated some functional elements into its structure that also provided academic services, most of which had been filled by people from outside the librarianship profession. In terms of research, there were a couple of roles that support open access and research data management across the whole of the University, however, structurally, they were not with the Faculty Teams, but instead in a technical-focused division of the library. Both of these functional research roles were currently filled by individuals who did not hold a librarianship qualification, but in fact had PhDs, and significantly, they were on the same paygrade as the assistant librarians.

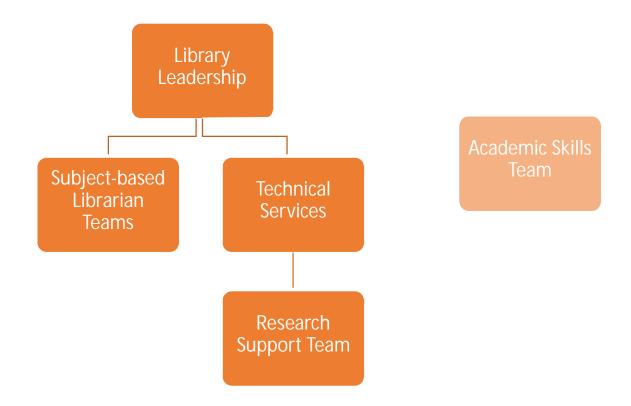
In terms of other functional roles in the library, there was also a team in the library dedicated to providing academic skills support, yet it should be noted that, this team did not support

Maths and Statistics, and this was provided by a team in a different part of the University. This academic skills team consists of staff who all hold PhDs and teaching qualifications, and identified as being Learning Developers. They sat under the same library division as the subject-based librarian team, but were a distinct and separate team. Significantly, they were also a much smaller team, having only three full-time staff, and they had no subject alignment.

There had also been examples of other functional roles being established in the Library and filled by people from outside of the profession. Firstly, there had previously been a fixed term Learning Technologist that had been placed in the Liaison Team in a project role to help develop online teaching materials. Some roles had also been created in the Library to coordinate outreach and promotional activities, predominantly to schools, with the posts filled by individuals with teaching qualifications, rather than librarianship qualifications.

Appendix G.3 - Case study B summary

This academic library was in a post-92, teaching-led university, and like Case Study A, while changes had been made to the structure that included the creation of some functional roles, the library had strongly retained its subject-based approach to structuring its academic services. The diagram below provides a simplified version of this library's structure:



Institutional and Library context

In the overall University structure, the Library was in a directorate with other studentfocused professional services, although previously they had been part of a directorate with Estates and other Facilities. Prior to data collection, the overall University had undergone a period of consolidation, whereby many former University campuses, most with their own library, had been closed.

Unlike the other case studies, academic skills services were not structured into this Library. Instead, there was a separate team external to the Library, but still within the same University directorate, who taught academic skills. These posts had previously sat within Faculties, but prior to data collection they had been brought into a central team during a restructure. In terms of other research support services, there was a centralised research support team, external to the Library, who had obtained funding from the University to grow their services to include such things as bibliometrics support.

Approach to changing the Library's structure

Again, this library's structure had evolved gradually, with incremental changes being made in order to adapt to ever-changing circumstances, including the closure of University sites. An overall reduction in staff being achieved through some redundancies and not filling vacant posts, however, the overall library did not undergo a formal restructuring. All remaining staff from the sites that had closed had been relocated onto the remaining library site and absorbed into the current structure. The Library had also been able to adapt their structure during this time and created new roles without requiring additional funding from the University, which it was acknowledged was unlikely to be provided. Therefore, when posts have become vacant the library management had taken the opportunity to review the roles and often created new or repurposed roles where it was deemed necessary, which existing library staff were moved around to fill. This had resulted in staffing resources sometimes being taken from one area of the Library to grow another area, and it was particularly noted that teams dealing with traditional print collections had reduced in size to accommodate this.

Teams in the structure

In terms of the subject-element of the structure, there were Faculty teams, which had gradually evolved over the years to ensure they continued to reflect the wider Faculty structure when any changes had been made. They consisted of Librarians at various pay scales, with staff having more staffing responsibilities at each level, which similar to Case Study A, created a clear path of promotion. However, there was a larger number of Librarians at this case study, which facilitated each Librarian being allocated a smaller number of specific subjects within their Faculties to support, than at Case Study A. The librarians provided engagement, teaching, learning and some research support, with some of the librarians on lower scales also scheduled to work a small proportion of their time on frontline desks answering enquires. Again, some collection management work had been automated and was now carried out by a centralised team of Library Assistants; however, the

Subject Librarians were still involved with liaison around collections and collection development, with such activities being explicitly listed in their job descriptions.

Again, similar to Case Study A, for the more senior Librarian roles a librarianship qualification was listed as essential in the job description, but for some lower Librarian roles they were beginning to list it as desirable. Although, at the time of data collection, all of the Librarians had librarianship qualifications. The need for teaching qualifications was not stated on the job descriptions, but most, if not all, of the Librarians either had or were working towards completing the University's own internally developed teacher-training programme.

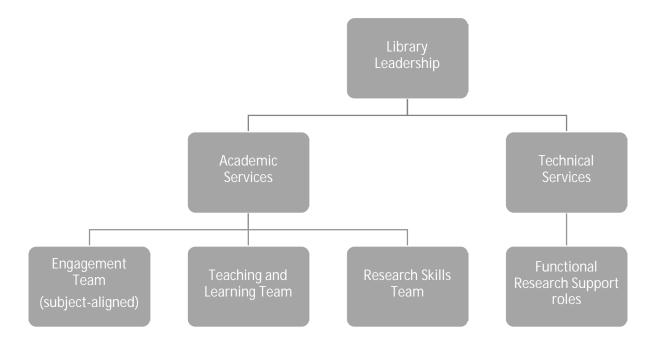
Despite the general perception being that they have maintained a subject approach to academic services, this case study had also incorporated some functional elements into its structure that also provided academic services. In terms of research, a research support team had been created which, similar to Case Study A, had been structured into a technical-focused division of the library and was not subject-aligned. Unlike the Faculty teams, this research team reported directly to the Head of Service. Originally, there was one role focusing on open access and then another was added to focus on research data management, and recently the team had increased in size again. The creation and growth of this team had been enabled by the closure of some University sites and the subsequent relocation of some library staff. However, despite this growth, it was felt there was not the capacity for the Library to undertake some research services, predominantly, bibliometrics, since they were unlikely to be provided with extra funding and some research support activities were being undertaken elsewhere in the University.

In terms of other functional elements, everyone in the library, including Library Assistants, Librarians and Managers, are assigned at least one functional, matrix responsibility in addition to their main role, such staff training, data and statistics and referencing support. There was also an element of a functional approach to some of the teaching carried out, since the Librarians did not just teach students from the subjects they supported, but were also expected to teach some of the

more generic workshops that students from any subject could book on to. This included, for example, any Librarians whose additional responsibility was for referencing who would provide referencing teaching and support for all students at the University.

Appendix G.4 - Case study C summary

This academic library was in a pre-92, Russell Group university with a strong research focus. It had undergone a restructuring exercise whereby their subject-based model of academic services provision was replaced with a functional team based model. However, the library had maintained a subject element through a subject-aligned engagement team. The diagram below provides a simplified version of this library's structure:



Institutional and Library context

In the overall University structure, the Library was in a directorate with other student-

focused professional services, although previously they had been part of a converged service with IT,

which had subsequently de-converged. Prior to carrying out a functional restructure in the Library, this Library had a subject-based structure consisting of Faculty teams of librarians who were aligned to specific subjects, but who were also given functional project responsibilities to lead on. It should also be noted that prior to the functional restructure, a new team responsible for teaching academic and study skills had been created in the Library. Significantly, this had also resulted in the Subject Librarians being moved from the same division as the Collections team, to a newly created division with this academic skills team. Subsequently, another team focusing on IT and digital skills training also moved into this skills-focused division of the Library from elsewhere in the University. Finally, an additional post had been created in this division from a vacant Subject Librarian post that focused on student transition and progression. The Library had also relocated into a newly built building shortly before the decision was made to restructure.

This new structure was not as well established as some of the other case studies where a functional restructure had taken place, since the restructure had taken place relatively recently.

Approach to changing the Library's structure

During the functional restructuring process, there were no redundancies, and all of the previous Subject Librarians were moved into one of three newly-created functional teams – either the engagement team, the teaching and learning team or the research skills team. Although, one Subject Librarian did continue part-time in a subject role running a subject specific site library as well as obtaining a functional role. The former Subject Librarians did not formally reapply for the new roles; instead, they ranked the teams they wanted to move into in order of preference. Managers then held informal meetings with all staff involved and allocated the new roles based on preference and believed suitability for the new roles. Although, it should be noted that not everyone got their first choice. For all of the new roles that were created, a librarianship qualification was not essential, although it was usually desirable. Since the restructure had occurred relatively recently, it had not been reviewed and changes had yet been made.

Teams in the structure

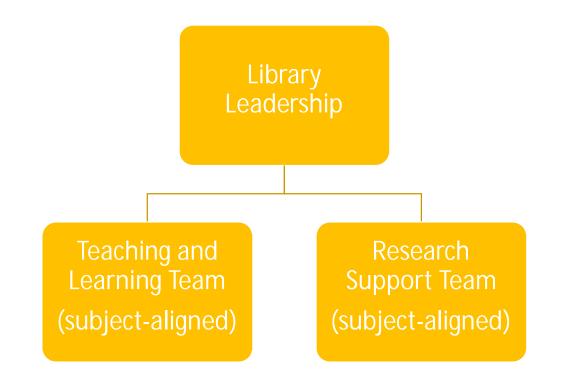
Regarding the new functional structure, the Engagement Team was the only remaining team to be formally subject-aligned and consisted entirely of former Subject Librarians with library qualifications. However, they were not expected to be subject experts and instead the role of this team was to act at the main point of contact for academic departments and manage these relationships, with the aim that this engagement would inform the development of Library services and support to ensure alignment with the needs of the Faculties. They were expected to promote the Library's services and signpost to the other Library teams when relevant. Significantly, their remit also included engagement with academic departments around collections development. The staff within this team were also given a functional responsibility to lead on, for example, marketing or reading list management.

The Teaching and Learning team was the largest team and they supported taught students, including taught postgraduates, to develop the skills required for academic study. The team was split into two separate areas: an academic skills team and an IT and digital skills team. The IT and digital skills team remained unchanged from the team that existed before the restructure, however, the academic skills team consisted of the staff from the academic skills team that had previously become part of the library, with the addition of a few former Subject Librarians. This team, therefore, contained staff both with and without librarianship qualifications, and, unlike the engagement and research skills teams, was managed by someone without a librarianship qualification. However, significantly, the former Subject Librarians did have a slightly different job title and job description to the staff who had previously been on the academic skills team, although they were all on the same pay scale. The remit of both roles within the team included developing and delivering academic skills support, but the remit of the former Subject Librarians also included information literacy and digital literacy support. Interestingly, for the former Subject Librarian role a teaching qualification was desirable; however, for the other academic skills role it was essential.

The final team created during the restructure was the Research Skills team, which mainly consisted of the former Subject Librarians, but also contained another role that had previously existed that focused on supporting postgraduate research students to develop their academic writing skills. This role remained distinct with a different job title and job description to the rest of the team who focused on supporting postgraduate researchers and staff in a broader range of research skills, including open access, bibliometrics, research data management and information literacy. Significantly, there was also a small team in a more technical-focused division that carried out the more administrative research support activities regarding the repository, open access and research data management. While this team was focused more on the technical side of research support, more in-depth enquiries would be directed to them from the other team whose focus was on advocacy and training.

Appendix G.5 - Case study D summary

This academic library was in a post-92, teaching-led university. It had undergone a restructuring exercise whereby their subject-based model of academic services provision was replaced with a functional team based model. However, the library had maintained a subject element by both function teams having staff aligned to subjects. The diagram below provides a simplified version of this library's structure:



Institutional and Library context

In the overall University structure, the Library was structured separately from other departments, although it reported to an academic-focused senior university manager. Prior to carrying out a functional restructure in the Library, this Library had a subject-based structure with one single team of Subject Librarians. There was also a matrix element to the roles with librarians being assigned a functional focus of either teaching and learning or research support, as well as their subjects. A role focusing on academic skills had also moved into the Library, although a team focusing on supporting international students remained external to the Library. In terms of research support, before the restructure individual academic departments and Faculties had developed their own ad hoc services however, since the restructure a centralised research support team external to the Library had been established.

Interestingly, the Head of Service at this Library had an IT background and did not have a library qualification, but had a background in managing converged IT and Library services. This is in contrast to all of the other case studies where the Head of Service had a library qualification and background. While they were not in place as Head of Service when the restructure began, they had been appointed and have approved to it.

The restructuring had occurred a few years previously to the data collection and the new structure was relatively well established.

Approach to changing the Library's structure

The restructuring process was quite similar to that of Case Study C since no redundancies had been made. Although, some financial saving had been made by not replacing a senior library manager who left. In this case study, all of the previous Subject Librarians were moved into one of two functional teams that were created – either the teaching and learning team or the research support team. Although, both of these teams retained a formal subject-alignment that follows the structure of the University's academic departments. Again, the former Subject Librarians did not formally reapply for the new roles, and instead, they stated which one they would prefer to work in. However, the senior managers decided on the final allocation of roles and again not everyone got their first choice of role. Since the restructure, amendments had been made to the structure, with both functional teams increasing in size to accommodate increasing responsibilities.

For all of the new roles that the former Subject Librarians went into, a librarianship qualification was an essential requirement in the job descriptions, and teaching qualification were not mentioned. Although, staff in the teaching and learning team were strongly encouraged to undertake the University's own internally developed teacher-training programme, if they did not already have a teaching qualification.

Teams in the structure

The Teaching and Learning team was the larger of the two teams and they supported taught students, including taught postgraduates, to develop the skills required for academic study. This included training and support for information literacy, academic skills and some IT and digital skills.

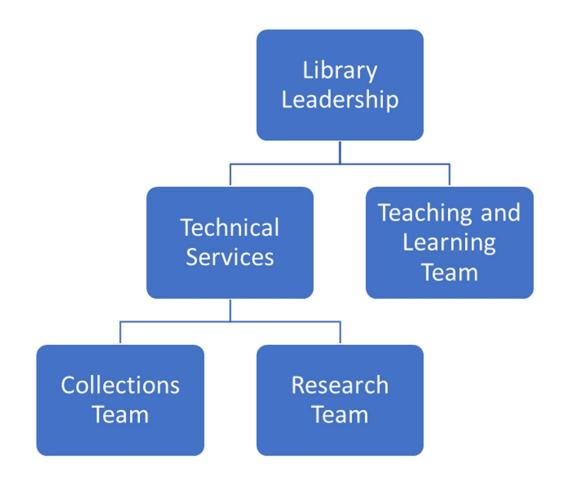
They were also increasingly providing training for staff as well. The former Subject Librarians who became part of this team were all subject-aligned to the individual academic departments of the University, with each being assigned at least one for undergraduates and at least one for postgraduates. Significantly, the academic departments they supported at undergraduate level were also different to the ones they supported at postgraduate level, meaning that each academic department had at least two contacts within the team. This subject-alignment only related to engagement and liaison with academics, as well as teaching some information literacy workshops tailored to subject resources, since they were expected to provide support to students from any subject. While responsibility for collections appears in the job descriptions of the librarian posts in both the teaching and learning team. Some functional responsibilities were split down even further in this team with each member having an extra remit - for example, referencing, the VLE or reading list software - that they are expected to lead on for the team.

As well as the former Subject Librarians, this team also included staff who provided training and support for academic and digital literacy skills. Initially, there was one such role filled by the staff member who focused on academic skills and had previously moved into the Library, and eventually they had also been assigned an academic department to liaise with. This member of staff was on the same grade as the former Subject Librarians, but had a different job title because they did not get involved with collections and did not have a librarianship qualification. Following the restructure, the Library had received some extra internal University funding to fund additional academic skills posts, including a few roles focusing on maths and statistics support. However, these newer academic skills staff were not aligned to subjects and did not have the engagement element to their role, and, consequently, they were on a lower pay scale. Attached to the teaching and learning team was also a group of Student Mentors who were supervised by the Librarians in the team and provided bookable one-to-one peer support alongside the staff.

The second team created during the restructure was the Research Skills team. Originally, three former Subject Librarians made up this team; however, since the restructure an extra post had been created to focus on research data management, which had been filled by a former Subject Librarians who had initially been placed in the teaching and learning team following the restructure. The remit of this team was to provide training and support for all University researchers, both postgraduate researchers and staff, as well as providing a more strategic role within the University providing advice and guidance regarding University level responses to research. Each of the original roles in this team had been assigned a functional research responsibility to lead on. However, they were also aligned to one of the overall Faculties in the University, unlike the teaching and learning team who were aligned at the level of individual academic departments, but again this was alignment at an engagement level and they were expected to provide support across the subjects. Significantly, manage the institutional repository or APC payments did not sit with this team, but instead the institutional repository was the responsibility of the technical-focused team, who also had responsibility for the Library catalogue, and APC payments were carried out by the Acquisitions team.

Appendix G.6 - Case study E summary

This academic library was in a pre-92, non-Russell Group, research-led university. It had undergone a restructuring exercise whereby their subject-based model of academic services provision was replaced with a functional team based model, which had resulted in no formal subject-based element remaining in the new structure. The diagram below provides a simplified version of this library's structure:



Institutional and Library context

In the overall University structure, the Library was structured separately from other departments, although, again, it reported to an academic-focused senior university manager. Prior to the restructure, this Library had a subject-based structure with one single team of Subject Librarians, who sat in the same division as the Collections team. A team focusing on academic skills provision and IT training had also been established in the Library shortly before the restructure. In addition, the completion of a project undertaking a refurbishment of the Library coincided with the decision to restructure.

A few years after the restructure, the University closed its only UK satellite campus, which resulted in the closure of the Library there. The restructuring had occurred a few years previously to the data collection and the structure was relatively well established.

Approach to changing the Library's structure

Unlike the previous case studies who underwent functional restructures, this restructure involved the whole Library service and resulted in some redundancies. Some Library staff were able to be matched over to roles in the new structure, however, all of the former Subject Librarians had to officially reapply for new functional teams and roles that were created. These included a team who focused on teaching and learning support, a collections role, a Library data role and a research support role. None of the new roles stated the requirement for a library or teaching qualification and instead just specified a *"relevant professional qualification"*.

Since the original restructure, some changes had been made. Firstly, after the closure of the satellite campus, the Librarian there moved to the main site and was incorporated into the structure in a joint role between the teaching and learning and collections team. Subsequently, they took up the purely collections-based role after it became vacant, and the opportunity was taken to review and refocus the role. Furthermore, a new Head of Library Service had been appointed since the original restructure, and they had reviewed the structure and made some amendments to overcome some perceived issues. These changes included rearranging some line management responsibilities and the addition of some new roles. Some of these new roles were temporary initially in order to allow for experimentation with the roles so they could understand what was required before firmly establishing the responsibilities and job description. Other changes that were made also included establishing virtual teams to undertake some subject liaison activities, including attending committee meetings. These virtual teams consisted of various Library staff from senior library managers, who often led the groups, to library assistants. However, this subject element was not formally incorporated into the structure or job descriptions. In addition, the new Head of Service had also undertaken a piece of work, involving training and team building exercises, aimed at improving the organisational culture of the Library.

Teams in the structure

The Teaching and Learning team was the largest team created and they supported taught students, including taught postgraduates, to develop the skills required for academic study. This included training and support for information literacy, academic skills and some IT and digital skills. The majority of this team consisted of the staff from the academic skills team and an IT trainer that had previously become part of the library, with the addition of a few former Subject Librarians, and it was managed by someone without a librarianship background. Someone supporting maths and statistics was also added to this team during the restructure. Most of the staff in this team were aligned to subjects by being part of the virtual teams, however, in terms of their everyday work in this team, they were not aligned to subjects and were all expected to support any student. Although the team had unofficially divided up some of the more specialist support provided by the team, with the former Subject Librarians focusing on advanced information literacy training, despite everyone's job description being the same. Everyone on this team has some form of teaching qualification, despite it not being a requirement in the job description.

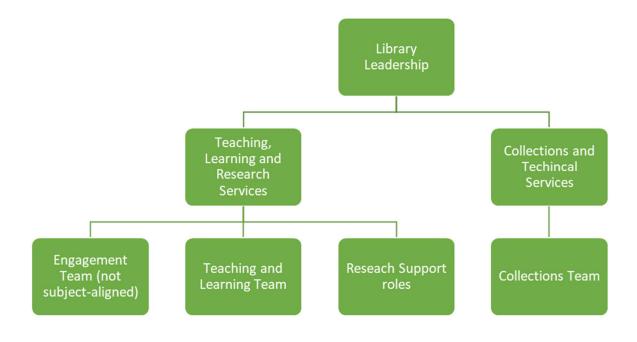
This teaching and learning team made up one division of the Library, while all of the other functional teams that were created were in a different division, along with a technical-focused team. These new functional teams included a research support team that originally consisted of one of the former Subject Librarians and an assistant. However, since the restructure the former Subject Librarian had left and been replaced by a new member of staff. The remit of this team was to provide training and support for all University researchers, both postgraduate researchers and staff, and had responsibility for open access, research data management as well as other research related activities.

The other team in the same division as the research team was a collections team, and one of the former Subject Librarians had moved into a collections role as the head of this team, where they liaised with all academic departments regarding collection development and management, as well as managing a team of staff with responsibility for metadata. They also managed the new functional

role focusing on Library data, which had been filled by another former Subject Librarian. After the restructure and a review, the decision was taken create a new role in this team, which focused on engagement with all academic departments regarding the use of Library collections in teaching and learning and course design. Significantly, this role was filled by someone who did not have a librarianship qualification, but had a teaching background and qualification. It should also be noted that the team dealing with acquisitions sat in another division of the Library to this collections team.

Appendix G.7 - Case study F summary

This academic library was in a post-92, teaching-led university. It had undergone a restructuring exercise whereby their subject-based model of academic services provision was replaced with a functional team based model, which had resulted in no formal subject-based element remaining in the new structure. The diagram below provides a simplified version of this library's structure:



Institutional and Library context

The Library at this case study was part of a super-converged service, which included, along with the Library, student wellbeing, careers and progression. In the overall University structure, this super-converged service reported to the same senior University manager as the Faculty teams.

Prior to the restructure, this Library had a subject-based structure with one single team of Subject Librarians, who were aligned to more than one subject and sat in a separate division of the Library to more back-office roles, including cataloguing and acquisitions. There had also been a separate research support role that had responsibility for the institutional repository and open access.

The restructuring had occurred a few years previously to the data collection and the new structure was relatively well established.

Approach to changing the Library's structure

The restructure of the Library at this case study had been part of a much larger restructuring of the entire student support services to create the super-converged service. Some of the other student support services had previously been structured into each Faculty and the restructure centralised them into one service.

Like Case Study E, at this case study the restructure involved redundancies and staff had to officially reapply for the new roles that were created. The new functional teams and roles that were created included a team who focused on teaching and learning support, a collections team, an engagement team and some research support role. For all of the new roles either a librarianship or an education/teaching qualification was listed as essential in the job description.

Since the original restructure, some additions had been made to the structure to grow services, predominantly around research support, with the Library receiving extra funding from the University for these new research support roles.

Teams in the structure

The Library element of the super-converged structure had been separated in the restructure into two divisions – one focusing on teaching, learning and research services and one focusing on collections and technical services. The teams within these two divisions all consisted of professional level staff leading the team, with two levels of non-professional roles below them, with the exception of a few of the research support roles that existed independently.

Within the teaching, learning and research services division, the Teaching and Learning team was the largest team, and they supported taught students, including taught postgraduates, to develop the skills required for academic study. This included training and support for information literacy, academic skills and some IT and digital skills. They also developed and delivered training to researchers around topics such as open access, research data management and academic writing. Originally, the professional staff in this team were all librarians who had been restructured into the team, however, when people had left, some of the replacements that had been hired did not have a librarianship qualification and instead had teaching qualifications. Consequently, there was now a mix of professions at the professional level within the team.

There was also an Engagement team in this division of the Library, although, unlike Case Study C, this was not subject-aligned as there was only one member of professional staff. The remit of this team was also slightly different and involved representing the library at meetings and committees, marketing of the library – including social media – project management and data, statistics and report writing for the library. The rest of this division of the Library consisted of separate research support roles, rather than one team. Initially, following the restructure, there was just the scholarly communications team, which included responsibility for the institutional repository, APC payments and open access and had a small team of non-professional roles attached to it. However, since the restructure, this team has increased in size, with more non-professional roles being added, and professional roles focusing on research data management and bibliometrics

had been added to the same division. Significantly, the bibliometrics role was filled by someone without a librarianship or teaching qualification, despite this being listed as essential in the job description.

The other division of the Library included a functional collections team that focused on collection development and engagement with academic departments regarding collections.

Subject vs. Functional Organisational Structures: Library Directors



Subject vs. functional: the relationship between changing organisational structures and the transformation of academic libraries and the profession of librarianship

You are being invited to take part in a web-based, online survey on the organisational structures of academic libraries, which is being conducted by Catherine Robinson from the University of Sheffield as part of a PhD.

The purpose of this survey is to collect information about your Library's organisational structure, therefore only ONE survey is required to be completed by a senior Library manager for each institution. The survey should take approximately <u>20 minutes</u> to complete.

Before you decide whether or not to participate, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part. Thank you for reading this.

Purpose of the research

This research is being conducted for a PhD. The aim of the study is to assess the relationship between organisational structural changes and the transformation of the academic library, with a particular emphasis on exploring and explaining how functional teams are being used in university libraries in comparison to subject-based teams to provide teaching, learning and research support to users. In doing so, the way in which the library's relationship with users, partners and the wider organisation, as well as the impact on librarianship as a profession, will be investigated.

Why have you been chosen?

You have been invited to take part because you are a Director of an academic library in the UK.

Do you have to take part?

It is up to you to decide whether or not to take part. You may refuse to take part in the research or exit the survey at any time without penalty.

What are the possible disadvantages and risks of taking part in the research?

The risks of participating are the same as those experienced in everyday life.

What are the possible benefits of taking part?

It is intended that this work will be of professional interest to the academic library community, and the results of this investigation could potentially contribute to the development of university library structures in the future.

Will my participation be confidential?

All the information collected during this survey will be kept strictly confidential. During the survey, you will be asked for the name of your institution, but this information will only be used by the researcher in order to make comparisons. Institutions will not be named in the PhD thesis or any subsequent reports, publications or presentations.

What will happen to the data collected, and the results of the research project?

The data will be analysed for inclusion in a PhD thesis, as well as related journal article, conference proceedings, presentations and lectures. The data will be stored on the researcher's password-protected personal computer and backed up to the Information School's research server. After any subsequent publications, since the data could be of interest to the library community, the anonymised quantitative data could be made open using either the University of Sheffield's research data catalogue and repository, ORDA, or another third-party data-sharing site (e.g. GitHub).

Who is organising and funding the research?

This research is being funded by a Faculty of Social Sciences, Doctoral Academy Scholarship from the University of Sheffield.

Who has ethically reviewed the project?

This project has been ethically approved via the University of Sheffield's Ethics Review Procedure, as administered by the Information School.

Who do you contact for further information?

For further information about the research project please contact the Principal Investigator or the Supervisor:

Catherine Robinson (Principal Investigator)

PhD Student

Information School

University of Sheffield

clhoodless1@sheffield.ac.uk

Prof. Stephen Pinfield (Supervisor)

Professor of Information Services Management

Information School

University of Sheffield

s.pinfield@sheffield.ac.uk

Note: Further information, including details about how and why the University processes your personal information, how we keep your information secure, and your legal rights (including how to complain if you feel that your personal information has not been handled correctly), can be found in the University's Privacy Notice https://www.sheffield.ac.uk/govern/data-protection/privacy/general.

If you have any difficulties with, or wish to voice concern about, any aspect of your participation in this study, please contact Dr Paul Reilly, Research Ethics Coordinator, Information School, The University of Sheffield (<u>ischool_ethics@sheffield.ac.uk</u>), or the Head of Department, Prof. Val Gillet (<u>v.gillet@sheffield.ac.uk</u>)

Thank you for taking part in the survey

Ethical Consent

By clicking on the agree button below and completing the survey you are indicating that you have read the information on the previous page and are voluntarily agreeing to participate.

o lagree

Glossary

Academic Services: the part of the Library's structure that provides engagement, teaching and learning, and research support services to academics, students and researchers (excludes customer services, technical departments and back-office activities).

Subject-based structures: the organisational structure of the library is aligned to the academic departments of the institution. Librarians are assigned to a subject, or group of subjects, and provide engagement, collection management, teaching and learning, and research support.

Functional structures: organisational structures containing teams that are focused on the main academic services activities - e.g. Teaching and Learning teams, Research Support Teams, Engagement teams and Collections Engagement teams.

Subject librarians: refers to any staff that are assigned a subject, or group of subjects, and whose role encompasses a range of activities that includes (but is not limited to) engagement, collection management, teaching and learning, and research support (even if these roles are also supported by other functional roles within the structure, particularly around research support). So, it extends beyond the job title of 'Subject Librarian' to include other job titles, such as 'Liaison Librarian', 'Academic Services Librarian' etc.

Engagement: roles that undertake communication and liaison with academic departments, but do not provide the majority of the library's teaching and learning and research support services.
Collections Engagement: liaison with academic departments regarding collections development and use (excludes back-office collections activities)
Institutional Information
1. Please provide the name of your university:
2. How is the library structured within the overall institution? Please expand in the box provided, if required.
 Converged service/in the same directorate as IT services Super-converged service/in the same directorate as student services In a directorate with Estates/Facilities In a research-focused directorate The Library is structured separately
Please enter your comment here:
3. How would you describe the governance of your institution?
 Centralised Federated/distributed amongst academic departments Combination of centralised and distributed governance Unsure Other
The Organisational Structure of the Library
 Does your Library's structure contain Subject Librarians (or equivalent roles)? ~ Please see note below Please expand in the box provided, if required.

- Yes individual Subject Librarians structured into one team
- Yes Subject Librarians structured into more than one team (e.g. Faculty Teams)
- Yes Subject Librarians structured in another way (please explain in the box provided)
- o No

Please enter your comment	here:

*This includes any staff that are assigned to a subject, or group of subjects, and whose role encompasses a range of activities that includes (but is not limited to) engagement, collection management, teaching and research support (even if these roles are also supported by other functional roles within the structure, particularly around research support).

- 5. If no, has your library's organisational structure included Subject Librarians in the last 10 years?
 - o Yes
 - o No
 - o Unsure
- 6. Does the Library contain any of the following functional teams/roles?

	Yes - with NO	Yes - but some	Yes - but at	No
	subject	INFORMAL	least some	
	alignment	alignment to	staff are	
		subjects exists	FORMALLY	
			aligned to	
			subjects	
Engagement ~				
Please see note below				
Marketing				
Teaching and				
Learning				
support				
(library				
skills/informati				
on literacy)				
Teaching and				
Learning				
support				
(academic				
skills)				

	Teaching and				
	Learning				
	support				
	(library				
	skills/informati				
	on literacy and				
	academic skills				
	together)				
	Research				
	support				
	Collections				
	Engagement				
	*Engagement refers to rol				
	academic departments, bu			e the majority of t	ne library s
	teaching and learning and	research	i support services.		
7	Are there any other function	opol rolog	toome in the Libr	anu'a atruatura the	at provide
7.	Are there any other function support to academics/stude			5	
	teams)		cluding customer	services and syste	enns/lechnical
	teans)				
8.	Does the Library have a m	atrix elen	nent to its structur	€? ∼ Please see note below	
	Please expand in the box p	provided,	if required.		
	o Yes				
	o No				
	0 110				
Plea	se enter your comment			here:	
1100	se enter your comment			nere.	
* A	matrix element refers to wl	here som	e individual staff h	ave more than on	е
	ervisor/manager.				
· ·	5				
9.	Do you make use of project			e any academic se	ervices activities?
	Please expand in the box p	provided,	if required.		
	o Yes				
	o No				

Please enter your comment here:
10. Do you assign professional staff any academic services activities to lead on (e.g. open access, referencing support, marketing etc.)? Please expand in the box provided, if required. ~ Please see note below
o Yes o No
Please enter your comment here:
*Please do not include staff who lead on activities that are specifically identified in their job titles/descriptions (e.g. Open Access Librarians who will lead on open access).
11. How would you categorise the organisational structure of the academic services within the Library? ~ Please see note below Please expand in the box provided, if required.
 Subject (all academic services provided by staff in subject-based role) Hybrid (but predominantly subject-based) Hybrid (mixture of subject and functional roles providing academic services) Hybrid (but predominantly functional) Functional (all academic services provided by staff in functional roles) Other
Please enter your comment here:
Qualifications
12. Do the <u>professional</u> staff in the following teams/roles all have a library or information management/studies qualification (or are working towards one)? ~ <i>Please see note below</i>

	Yes - all	No -	No -	No - none	N/A
	professiona I staff have a library	mixture of staff with library	mixture of staff with library	of the staff have a library	
	qualificatio n	qualificatio ns and other professiona ls, but the roles/job titles are different	qualificatio ns and other professiona Is with the same roles/job titles	qualificatio n	
Subject Librarians (or equivalent)					
Engagemen t					
Marketing					
Teaching and Learning (library skills/inform ation literacy)					
Teaching and Learning (academic skills)					
Teaching and Learning (library skills/inform ation literacy and					

academic skills)			
Research support			
Collection Managemen t			

*For this question only include staff on pay grades of a professional level (e.g. Learning Developers/Technologist, professionals with teaching qualifications etc.)

Do not include staff in non-professional roles (e.g. Library Assistants),

13. Please elaborate on other professionals working in the Library (if appropriate)

Library Services and Responsibilities

14. Please rate whether the Library provides the following and how important you deem it to be that the Library provides them:

		Ca	ipac	ity			Imp	orta	ance	
	Not providing at all 1	2	3	4	Consistent ly providing 5	Not importa nt at all 1	2	3	4	Very importa nt 5
Staff with a degree/backgrou nd in the subjects they support										
A named contact for each subject										
Staff with knowledge of subject										

collections/resour					
ces					
Staff with					
pedagogical knowledge					
Professional staff on front-line service desks					
Generic and standardised teaching sessions					
Teaching sessions and support tailored to subjects					
Teaching sessions students can book onto					
One-to-one sessions students can book onto					
Online and interactive teaching materials					
Generic and standardised research support services					
Research support services tailored to subjects					
Staff with experience of research					
	.				

15. How are collections buy provided, if required.	dgets managed at yo	our institution? Please e	expand in the box
_	ary (e.g. by a Collecti	on Management team) ged by Subject Librariar	
Please enter your comment			here:
16. To what extent is collect reading lists, academic acquisition etc) or an e collections? Please exp	/student recomment ngagement activity v	dations, usage figure, d vith librarian involveme	lemand-driven
o A balance of back-of	role, with some libra fice and librarian inv arian engagement/i	arian involvement/enga volvement/engagement nvolvement, with some nvolvement	t
Please enter your comment			here:
Oth	er Library R	esponsibilities	5
17. Is the Library involved institution?	in delivering the follo	owing services and supp	oort within the
	Leading	Involvement	No
Academic			
skills/study skills support/teaching			
Digital/IT skills			
support/teaching			
Employability skills support/teaching			
support/teaching			

Research tools		
training (e.g. NVivo,		
SPSS etc.)		
Maths support		
VLE		
Outreach activities		
Copyright services		
Institutional		
repository		
CRIS		
Scholarly		
communications/op		
en access/open		
scholarship support		
APC (Article		
Processing Charge)		
payments		
Bibliometrics/altmet		
rics support		
REF submission and		
funder compliance		
Research data		
management		
support		
Special		
Collections/archives		

18. Are there any other key activities the Library is involved in or that have been structured into the Library relating to engagement, academic support, teaching and learning support, research support or collections?

Restructures

- 19. How would you describe your Library's approach to making changes to the academic services element of the organisational structure in the last 10 years? *Please see note below* Please expand in the box provided.
 - Formal restructure(s)
 - Mix of formal restructure(s) and incremental changes

o Incremental changes
o No changes
o Unknown
Please enter your comment here:
*Academic services refers to the part of the Library's structure that provides engagement, teaching and learning and research support services.
20. Has the academic services part of your Library undergone a restructure around functional teams in the last 10 years or have you considered it? If yes, please briefly expand in the box provided, including when this functional restructure took place.
 Yes Currently undergoing a functional restructure Currently considering a functional restructure Considered a functional restructure, but rejected it No
Please enter your comment here:
21. Has the academic services part of your Library undergone a restructure in the last 10 years that was not around functional team, or are you currently considering it? If, yes, please briefly expand in the box provided, including when this restructure took place.
 Yes Currently undergoing a restructure Currently considering a restructure No
Please enter your comment here:
22. If your Library's structure has undergone any changes in the last 10 years, or you are currently considering it, please rate the significance of the following in that decision.

	Not significan t at all				Very significan t	No	
	1	2	3	4	5	answer	
Need to save money							
Consistency of services							
Instigate a cultural change							
Reduce single points of failure							
Problems with subject librarians							
Improve team working							
Expand and build distinct and visible areas of focus and expertise in research support							
Expand and build distinct and visible areas of expertise and focus in teaching and learning							
Bring together information literacy and academic skills support for students							
Mix librarians with other							

professional staff				
Improve ability to create links with other professional services in the university				-
Wider institutional restructures to academic departments				
Wider institutional restructures to professional services (e.g. convergence/su per- convergence)				

23. Please provide any other reasons for changing the structure of the academic services and/or expand on some of your above choices.

Challenges

24. How would you rate the following as challenges you currently face in your library?

	Not a challenge at all	A small challenge	A medium challenge	A large challenge	A severe challenge
	1	2	3	4	5
Communica					
tion					

	1			
problems in the library				
Silo working				
Staff overloaded				
Lack of team working				
Budgets cuts				
Inconsistenc y of services and support				
Difficulty personalisin g/tailoring services and support				
Single points of failure				
Lack of collaboratio n with other student services staff and department s				
Lack of collaboratio n with other research services staff and department s				
Problems with				

F		r	1	
engagemen				
t with				
academics				
Problems				
with				
collection				
manageme				
nt				
Problems				
with the				
image of the				
Library				
Lack of				
visibility of				
teaching				
and				
learning				
support				
services				
Lack of				
visibility of				
research				
support				
services				
Problems				
with the				
organisatio				
nal culture				

25. Please elaborate on your above choices and/or describe any other challenges you face:

Final Comments

26. Do you think the current situation regarding covid-19 could have an impact your library's organisational structure or has it changed your opinions regarding subject vs functional structures? (optional)

27. Do you have any final comments to make regarding your Library's organisational structure and/or subject versus functional library structures? (optional)

Appendix I – Survey email invitation

Dear all,

I am a PhD student studying at the Information School of the University of Sheffield. I am undertaking a mixed methods study with the aim of building on my previous Masters research to assess the relationship between organisational structural changes and the transformation of the academic library, with a particular emphasis on exploring and explaining how functional teams are being used in university libraries in comparison to subject-based teams to provide teaching, learning and research support to users. In doing so, the way in which the library's relationship with users, partners and the wider organisation, as well as the impact on librarianship as a profession, will be investigated.

I would be really grateful if you could spend approximately 20 minutes completing the following survey about your library's organisational structure: https://limesurvey.shef.ac.uk/limesurvey/index.php/781444?lang=en

I am also surveying professional library staff who undertake any academic services role, which includes (but is not limited to) engagement with academic departments, collection development/engagement (i.e. not back-office roles), teaching and learning support and/or research support services. These staff do not necessarily need to have a library qualification but should be working at a professional level in an academic services role. Therefore, I would really appreciate it if you could also circulate this different survey to any of your staff who work in such roles: https://limesurvey.shef.ac.uk/limesurvey/index.php/962248?lang=en

Both surveys close at 4pm on Friday 7th August.

It is intended for this research to help the sector as a whole understand more fully the benefits of functional vs subject structures. This PhD research project is being supported by an Advisory Group consisting of David Prosser, Executive Director of RLUK; John Cox, University Librarian at the National University of Ireland, Galway; and Dr Judith Keene, University Librarian at the University of Worcester and Chair of the SCONUL Transformation Strategy Group. They have provided advice on the development and coordination of the research to ensure that it aligns with the interests and needs of the professional community and will be of benefit to the profession.

Further details regarding the research can be found on the first page of both surveys. If you have any questions regarding the research project or would like to know the results of the survey, please contact me on <u>clhoodless1@sheffield.ac.uk</u>.

Thank you in advance for completing this survey.

Best wishes, Catherine Robinson

PhD Student Information School University of Sheffield clhoodless1@sheffield.ac.uk

Appendix J – Ethics Application documentation

Appendix J.1 – Ethics Application



Application 022920

ection A: Applicant details	
Date application started: Wed 5 September 2018 at 11:45	
First name: Catherine	
Catherine	
Last name: Hoodless	
Email: clhoodless1@sheffield.ac.uk	
Programme name: PhD in Information Studies	
Module name: n/a	
Last updated: 18/10/2018	
Department: Information School	
Applying as: Postgraduate research	
Research project title: Subject v. functional: the relationship betwee Ibrarianship	en changing organisational structures and the transformation of academic libraries and the profession of
Has your research project undergone acade No	mic review, in accordance with the appropriate process?
Similar applications: - <i>not entered</i> -	
ection B: Basic information	
Supervisor	
Name	Email
Stephen Pinfield	s.pinfield@sheffield.ac.uk
Proposed project duration	
Start date (of data collection): Mon 1 October 2018	
Anticipated end date (of project) Wed 30 September 2020	
3: Project code (where applicable)	
Project code	

- not entered -

Suitability	
akes place outside UK? es	
ivolves NHS?	
0	
luman-interventional study? Io	
ISRC funded?	
ikely to lead to publication in a peer-reviewed journal? ies	
ed by another UK institution?	
0	
ivolves human tissue?	
0	
linical trial?	
0	
locial care research?	
0	
volves adults who lack the capacity to consent?	
0	
volves research on groups that are on the Home Office list of 'Proscribed terrorist groups or organisations? Io	
Indicators of risk	
ivolves potentially vulnerable participants?	
0	
ivolves potentially highly sensitive topics?	

No

Section C: Summary of research

1. Aims & Objectives

This study aims to assess the relationship between organisational structural changes and the transformation of the academic library, with a particular emphasis on exploring and explaining how functional teams are being used in university libraries in comparison to subjectbased teams to provide teaching, learning and research support to users. In doing so, the way in which the library's relationship with users, partners and the wider organisation, as well as the impact on librarianship as a profession, will be investigated.

The objectives are:

1. To discover how the move towards functional library structures affects the skills, expertise and responsibilities of staff, as well as the services available to users, and how the changes impact on the culture of the library in comparison with predominantly subject-based structures.

2. To analyse how library staff and senior managers perceive their library structures to align the library with the strategic context in which they are working and how they perceive the changes to library structures relate to the overall changes occurring in Higher Education. 3. To assess if there are common attitudes amongst university library staff and senior managers towards the effectiveness of library structure, as they relate to the subject-functional question, in positioning the library to engage with research and learning. 4. To explore what librarians and senior managers of academic libraries identify as the impact of increasing specialisation and use of functional roles on librarianship as a profession.

5. To evaluate trends in the use of functional teams over subject teams and develop a typology of academic library organisational structures.

2. Methodology

For this research an exploratory, sequential mixed methods design will be used, where there will be two distinct phases: a primary qualitative strand to explore the research questions, followed by a quantitative strand in order to test if the results of the qualitative research can be generalised. The primary qualitative strand of this research will consist of a multiple, comparative case study based on interviews, focus groups and document analysis, with the case studies being made up of academic libraries with various organisational structures along the functional-subject spectrum. The interviews and focus groups will be semi-structured, therefore there will be a interview schedule with set questions that will be asked, however, if an avenue of enquiry appears which has not previously been considered by the researcher then this can be explored with further questions. The interviews and focus groups will be audio recorded (if permission is given by participants) and then transcribed. This transcribed data, along with any organisational documents acquired, will be subjected to thematic analysis using NVivo in order to draw out key themes related to the aims and objectives of the research. The findings of this initial stage of the research will be sent out to academic libraries in the UK and Ireland, with the possibility of also including Australia, New Zealand and/or Canada. The data collected from this survey will then be analysed using quantitative data analysis software, such as SPSS, in order to test and build on the findings of the initial qualitative stage.

The final phase of the data analysis of this research will then involve integration of the separate qualitative and qualitative analyses in order to assess how the results address the original research aims and objectives and draw conclusions. This will be done by drawing the findings together visually using figures, tables, a matrix and/or graphs.

3. Personal Safety

Have you completed your departmental risk assessment procedures, if appropriate?

No

Raises personal safety issues?

Yes

The research does not pose any major risks to the researcher, however it will involve the researcher travelling around the country to the different case study sites alone, therefore, it does raise some issues around personal safety. In order to manage the small risks associated with conducting research activities off university premises, the supervisors will be provided with a timetable of exactly when and where the researcher will be conducting the multiple case study data collection.

Section D: About the participants

1. Potential Participants

This research will not involve potentially vulnerable participants.

For the initial qualitative strand of the research, the potential participants will be the senior library managers, line managers and other staff members working within the case study academic libraries. These case studies will will include examples of academic libraries that operate in universities with different missions and priorities (i.e. both research-intensive and teaching-led) in the UK, and potentially Ireland.

For the quantitative strand of the research, the potential participants will be senior library managers, line managers and other staff members working in academic libraries in the UK and Ireland, and potentially Australia, New Zealand and Canada as well.

2. Recruiting Potential Participants

Initially, in order to secure the multiple case study sites, ideal case study sites of academic libraries will be identified that have organisational structures that fall at different points along the functional-subject-based scale, ensuring a spread from research-intensive and teaching-led universities. The Heads of Service of these identified case studies will be contacted to explain the research and obtain permission to use their academic library as one of the case study sites. If this is not granted an alternative site, with a similar organisational structure and university profile, will be identified and the Head of Service contacted. Once permission has been obtained, individuals working in a variety of professional and managerial positions within the organisation structure of the academic library case studies will be identified and contacted to invite them to participant in interviews and/or focus groups. These will be scheduled for convenient times and places for the participants.

For the quantitative phase of the research, the survey participants will be identified using university websites and mailing lists, with the online survey being sent out to the work email addresses of potential participants.

2.1. Advertising methods

Will the study be advertised using the volunteer lists for staff or students maintained by CiCS? No

- not entered -

3. Consent

Will informed consent be obtained from the participants? (i.e. the proposed process) Yes

During the qualitative phase of the research, in advance of the interviews and focus groups, participants will be given an Information Sheet and Consent Form, which will provide them with information about the research and what will be required of them, in order for them to have change to thoroughly read through the forms, consider their involvement in the research and ask any questions they might have about the research. On the day, just before the start of the interview or focus group, the participants will be given further opportunity to ask any more questions they might have. Once all questions have been answered, the participants will be asked to sign the Consent Form to indicate that have been fully informed of the details of the research and give permission for the data collected in the interviews to be used in the research in the ways outlined in the form. This includes obtaining permission to have the interview/focus group audio recorded. For the quantitative stand of the research, the first page of the online survey will take the place of the Information Sheet and Consent Form by providing the information about the research and the participants involvement. This will include providing the researchers contact details in order for potential participants to ask any questions they might have about the research, and it will be clearly stated that participants will have the right to withdraw their data up to point where data analysis is complete. It will also state that by completing and submitting the online survey they giving their consent to participate in the research.

4. Payment

Will financial/in kind payments be offered to participants? No

5. Potential Harm to Participants

What is the potential for physical and/or psychological harm/distress to the participants?

The potential harm to the participants is no more than that experienced in everyday life. However, for the qualitative case study participants the research will require them giving up some of their time and could, therefore, be an inconvenience to them. With the qualitative strand of the research, there is also the risk that participants could become identified by their comments. For the quantitative strand of the research, again due to the time required to complete the survey, it could be an inconvenience for participants, however, there is no risk to anonymity and confidentiality.

Despite the potential inconvenience to participants in both strands of the research, the results of the research could be of professional interest to all participants as it is an important contemporary topic for academic libraries and librarians.

How will this be managed to ensure appropriate protection and well-being of the participants?

For the qualitative strand of the research, the interviews and focus groups will be arranged for times that best suit the schedules of the participants and be conducted at their university. With respect to confidentiality, participants will be assured that the comments they make during the interviews and focus groups will not be shared with senior library managers and every effort will be made to make the data anonymous and provide confidentiality for participants. For this reason, the case study organisations will not be identified in the research and no personal information will be kept with the data, with codes being assigned to the data instead. Where quotes are used in the research results actual names of people and case study institutions will not be used, only contextual information of university type and level of position within the institutions will be displayed. However, participants will be clearly informed of the nature of the research and its implications for confidentiality and anonymity, and while every attempt will be made for these to be maintained, they cannot be guaranteed. They will also be offered a chance to check the interview transcripts and clearly told that participation is voluntary and that consent can be withdrawn at any time prior to the completion of the analysis.

In terms of the quantitative strand of the research, it is a lot easier to ensure confidentiality, however, in order to provide the least amount of inconvenience to participants the survey will be clearly presented, concise and with easy to understand instructions, and importantly there will not be too many questions, in order to ensure it can be completed relatively quickly.

Section E: About the data

1. Data Processing

Will you be processing (i.e. collecting, recording, storing, or otherwise using) personal data as part of this project? (Personal data is any information relating to an identifiable living person).

Which organisation(s) will act as Data Controller?

University of Sheffield only

2. Legal basis for processing of personal data

If, following discussion with the UREC, you wish to use an alternative legal basis, please provide details of the legal basis, and the reasons for applying it, below:

- not entered -

Will you be processing (i.e. collecting, recording, storing, or otherwise using) 'Special Category' personal data?

No

3. Data Confidentiality

What measures will be put in place to ensure confidentiality of personal data, where appropriate?

For the qualitative strand of the research, each audio recording and transcript will be assigned a random number, and names of participants and their organisations will not be kept with the data. Also, any reference to a particular university will be anonymized, and information that is likely to point to particular individuals/organisations will be removed from any extracts of interviews used in the thesis. However, participants will be made aware in the Information Sheet and Consent Form that confidentiality cannot be guaranteed. For the quantitative strand of the research, no personal data will be collected since all data will be collected anonymously, therefore confidentiality is not an issue.

4. Data Storage and Security

In general terms, who will have access to the data generated at each stage of the research, and in what form

As the principal investigator, I will have control of the data in all forms and I will be the one who will anonymise the data and analyse the data in this anonymised form, however my supervisors will also have access to data.

What steps will be taken to ensure the security of data processed during the project, including any identifiable personal data, other than those already described earlier in this form?

The data will be stored securely on the researcher's password-protected laptop computer that has been provided by the department and backed up to the Information School's research server.

Will all identifiable personal data be destroyed once the project has ended? Yes

Please outline when this will take place (this should take into account regulatory and funder requirements).

The data collected will be used for a PhD thesis, however it will be kept after the thesis has been submitted in order for it to be used in journal articles and conference papers/presentations. Once these subsequent publications and papers have been produced, the qualitative data will be destroyed within two years, unless a publisher's data management policy required the anonymised data to be made public.

As for the quantitative data, this could be of interest to the library community and, therefore, the anonymous quantitative data could be made open using either the University of Sheffield's research data catalogue and repository, ORDA, or another third-party data-sharing site (e.g. GitHub).

Information & Consent	
Information & Consent	
Participant information sheets relevant to project?	
fes	
Document 1051304 (Version 2)	All version
Information sheet and consent form for online survey	
Document 1051303 (Version 2)	All version:
Information sheet for interviews and focus groups	
Consent forms relevant to project?	
/es	
Document 1051305 (Version 1)	All version:
Consent form for interviews and focus groups	
Additional Documentation	
Auditorian programmentation	

Section G: Declaration

Signed by: Catherine Hoodless Date signed: Fri 14 September 2018 at 14:45

Offical notes

- not entered -

Appendix J.2 – Ethics Approval Letter



Downloaded: 12/08/2019 Approved: 18/10/2018

Catherine Hoodless Registration number: 170132011 Information School Programme: PhD in Information Studies

Dear Catherine

PROJECT TITLE: Subject v. functional: the relationship between changing organisational structures and the transformation of academic libraries and the profession of librarianship APPLICATION: Reference Number 022920

On behalf of the University ethics reviewers who reviewed your project, I am pleased to inform you that on 18/10/2018 the above-named project was **approved** on ethics grounds, on the basis that you will adhere to the following documentation that you submitted for ethics review:

- University research ethics application form 022920 (dated 14/09/2018).
 Participant information sheet 1051304 version 2 (14/09/2018).
 Participant information sheet 1051303 version 2 (14/09/2018).

- Participant consent form 1051305 version 1 (11/09/2018).

The following optional amendments were suggested:

Please review the above comments and take on board suggested comments if necessary.

If during the course of the project you need to <u>deviate significantly from the above-approved documentation</u> please inform me since written approval will be required.

Yours sincerely

Daniel Rose Ethics Administrator Information School