"Quantification is the root of all evil in sociology"

What does it add up to? The place of quantitative research methods in British sociology

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"Statistics are like bikinis. What they reveal is suggestive, but what they conceal is vital"

Prof. Aaron Levenstein, November 1951

Abstract

The study presented in this thesis explores how professional sociologists view the nature and function of their discipline. Specifically, the research has developed as a result of findings from a series of previous studies demonstrating the relative absence of quantitative methods in British sociology and further ad-hoc studies which have highlighted sociology students' resistance toward learning quantitative methods. It was hypothesised that sociologists in Britain are increasingly relying on qualitative techniques to explore micro-sociological topics.

A realist approach was adopted in the study to enable some discussion of the potential mechanisms leading to the reported marginalisation of quantification in British sociology. An online survey was distributed to professional sociologists in the UK and 1024 responses were received. A shortened version of the survey was also distributed to sociologists in the Netherlands and New Zealand to help contextualise the findings from the UK.

In line with previous literature, the minority of the participants in the UK identified as 'quantitative researchers' and respondents most frequently reported using semi-structured interviews in their research. Moreover, the majority of the respondents listed researching micro-sociological research areas and reported that sociological research was more akin to the arts and humanities as opposed to the natural sciences.

The study also found an association between age or seniority and research practices in the UK, with older or more experienced researchers being more likely to identify as 'mixed methods researchers'. This finding has implications for the research methods training sociologists receive throughout their careers.

Finally, comparing the place of quantitative methods in British sociology and the two comparator countries revealed that the discipline is more diverse, fragmented and often viewed with greater inferiority in the UK, compared to elsewhere. High-quality methodological training was deemed necessary by participants to create or foster 'world-leading' sociological research. With this in mind, calls are made for the narrowing of the scope of sociology to ensure that future generations are able to answer social questions posed by external agencies on both the micro and macro levels. It is argued that this will enable academic sociology to maintain its relevance alongside the rise of 'big data' and independent social research centres.

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Chapter 1 : Introduction

"Statistical thinking will one day be as necessary a qualification for efficient citizenship as the ability to read and write"

(Samuel S. Wilkes paraphrasing H.G. Wells in the presidential address at the 1950 American Statistical Association)

Urgent calls have been made for increased statistical literacy and quantitative methods training in the social sciences (for example: MacInnes, 2009; Payne and Williams, 2011; Milligan et al., 2014; Universities UK, 2015). Such training is deemed essential with the shift toward a greater reliance upon "hard quantitative data" (Wells, 2007: 25) to inform and evaluate both policy development and delivery (Russell and Greenhalgh, 2009). With the rise in evidence based policy and practice in the UK, it has been argued that quantitative social research is becoming ever more important (Pirrie, 2001; Evans and Benefield, 2001; Young et al., 2002, Lather, 2004), with policy making since the 1990s having "an essentially quantitative agenda" (Sanderson, 2002: 6). Moreover, the need for quantitative skills has been underscored with the rise in routinely collected 'big data' (Savage and Burrows, 2007; Savage, 2009; Savage and Burrows, 2009). However, Universities UK (2015) reports that at present, there is a shortage of skilled graduates capable of managing such large quantitative datasets or producing quantitative analysis.

This study is informed by responses to the 'crisis' of number in British sociology (Burgess and Bulmer, 1981; Payne et al., 2004; Payne and Williams, 2011). It has been argued that British sociology is not fit for purpose in respect of social explanations and its influence on policy making. In particular, the perceived side-lining of quantification in the discipline has led to widespread concerns over the subject's purpose and future direction (Burgess and Bulmer, 1981; Payne et al., 2004, HEFCE, 2008; HEFCE, 2011).

This study is concerned with exploring the research practices of professional sociologists in the UK and, in particular, their level of engagement with quantitative research. Previous literature has suggested that quantitative research is marginalised in the discipline (Payne et al., 2004; MacInnes et al., forthcoming), and The International Benchmarking Review of UK sociology (HaPS, 2010: 23) reported "that British Sociology remains weak in quantitative methods".

In addition to seeking an understanding of the methods and approaches they regularly employ, the study also explores how sociologists view their discipline. Specifically, it investigates whether professional sociologists' beliefs about the nature and purpose of the discipline impact on their choice of methods in studying the social world.

Debates throughout the history of British sociology have centred on how closely allied the discipline is with the natural sciences or the arts and humanities. Williams et al. (2015) described how sociology is often offered as part of a 'humanities' pathway in schools and how the sociology A-level syllabi afford more space to qualitative methods teaching and learning than quantitative methods teaching and learning. Subsequently, sociology students often come to regard the discipline as humanistic in its endeavour and approach (Williams et al., 2008; Williams et al., 2015). The current research aims to investigate whether professional sociologists, too, see sociology having a strong humanistic character and considers whether this influences researchers' choice of methods.

To contextualise what is happening in the UK, the study reviews how other national sociologies are asking questions that are relevant to their societies. In particular, an overall aim is to compare the degree to which sociologists in different countries are equipped to answer such questions. Existing research on this issue, has compared the quantitative methods teaching that sociology and social science undergraduate students receive in different countries (for example; Parker et al., 2008; MacInnes et al., 2016). These studies have shown that, unlike the UK, some countries require undergraduates to complete more mandatory research methods modules and quantitative methods modules as part of their degree programme. The present study makes international comparisons between the national sociologies of the UK, New Zealand and the Netherlands. However, unlike previous research, the focus is on the research practices and views of the discipline held by professional sociologists as opposed to students.

The perceived deficit of quantitative methods training in British sociology has become a concern for a number of stakeholders. As already mentioned, there have been concerns about the discipline's ability to inform national-scale policy and practice (Burgess and Bulmer, 1981; Payne et al., 2004). There are worries too, that other social science disciplines which do engage with quantitative methods, namely economics, are now researching areas previously seen as the domain of sociology, and it is these which are increasingly informing Government on social issues (Payne and Williams, 2011). Moreover, independent social research centres (outside academia), such as the National Centre for Social Science, are

increasingly providing Government with social data. This is crucial because, as other commentators have suggested, the collection of aggregate level social data is becoming ubiquitous (Savage and Burrows, 2007; Savage, 2009; Savage and Burrows, 2009). This has led to questions over the value of sociological research from universities which are often based on small samples and, more broadly, prompts questions over the future value of the academic discipline in the UK.

Additionally, there are concerns that the lack of engagement with quantitative research among British sociologists may be limiting opportunities for research and restricting researchers' understanding of substantive issues of both national and international concern. It is argued that continued resistance toward quantitative methods, could result in British sociology becoming isolated from the discipline in other parts of the world, as well as from other social science disciplines in the UK (Burgess and Bulmer, 1981; Payne et al., 2004; British Academy, 2012; MacInnes, 2012). Furthermore, it is believed that a lack of engagement with quantitative methods could result in sociologists becoming unaware or unable to access large bodies of literature in their own substantive area (MacInnes, 2009).

Alongside this, there are growing concerns regarding the impact of this quantitative deficit on sociology students studying in Britain. Worries have been expressed as to whether sociology degree programmes are training students with the necessary skills and literacy to interpret statistics and to be critical consumers of news reports (Payne et al., 2004; MacInnes, 2009). There are also concerns surrounding the employability of sociology graduates who are not equipped with quantitative skills (Rice et al., 2001; MacInnes, 2009; Allebon, 2013; British Academy, 2015; Nuffield Foundation, no date) and there have been documented instances where sociology graduates have had to complete additional training upon entering employment to compensate for their skill shortages (Perlstadt, 1998).

Research suggests that sociology students in the UK prefer to write essays than analyse data (Williams et al., 2008). In their national survey of sociology students, Williams et al. (2008) found that 44% of students did not expect to have to do so much number work as part of their degree programme, and over half of students agreed that learning statistics made them feel anxious. In addition, almost a quarter of respondents agreed with the statement; "I don't think sociology students should have to study statistics".

In 2011, in response to the reported lack of student engagement with quantitative research in the social sciences, the Nuffield Foundation, Economic Social Research Council (ESRC) and Higher Education Funding Council for England (HEFCE) launched a £19.5 million programme,

the Q-Step programme, in collaboration with 15 universities. This project is a significant investment and political commitment to improve the quantitative training of social science students throughout their educational life (Allebon, 2013; Nuffield Foundation, 2012).

The majority of the literature on the deficit of quantitative methods, and on pedagogic strategies to reverse this deficit has however, been conducted by a group of researchers who have themselves been in receipts of funding to undertake ad-hoc studies researching the perceived quantitative problem. In some instances, this research has been based on studies with a handful of students from particular cohorts or degree programmes in specific higher education institutions. Lewthwaite and Nind (2016), therefore, considered the findings from these studies to be somewhat inconclusive and underlined the necessity for further independent research in a bid to stimulate greater discussion on how to best reverse the deficit of quantitative methods in British social sciences.

The current study begins to address this, through exploring the research practices of professional sociologists and their views of the function and nature of sociology. It aims to enable some discussion and careful consideration of the crucial factors which may be leading to students' disengagement with quantitative methods. Unlike previous studies, the research is based on survey data collected from a large sample of professional sociologists. Previous research has relied on data from small samples; anecdotal evidence, and used proxy indicators to measure engagement with quantitative techniques.

Furthermore, by comparing the national sociologies of the UK, New Zealand and the Netherlands, the study aims to provide an account for the quantitative deficit which has been identified in British sociology. Such international comparisons make this study unique from previous work exploring the status of quantitative research in British sociology. While comparisons have been made between undergraduate research methods curriculum across the globe (Parker et al., 2008; MacInnes et al., 2016) a systematic review of the research practices and sociologists' views of the discipline in these three countries has not been previously conducted. By adopting a comparative case study approach, the research aims to develop the present understanding of the place of quantitative methods in the discipline by moving:

> […] towards a framework which enables us to explain the differences and similarities we observe and the trajectories along which individual societies are moving. (Ashton et al., 2000: 14)

Comparisons may provide some valuable information and new evidence for pedagogic interventions designed to alleviate students' anxieties toward learning quantitative methods.

In this thesis, the intention is not to question the importance of qualitative methods to the study of the social world. It is important to acknowledge that matching concerns would have been raised if quantitative methods dominated the discipline. Indeed, a growing body of literature explored the reverse of this argument, that is, the possible place of more *qualitative* research in psychology (Mandill and Todd, 2002; Mandill and Gough, 2008; Gough and Lyons, 2015). Historically, psychology has especially promoted the use of objective, standardised approaches to research advanced in the natural sciences (Henwood, 2014). However, since the 1990s, a group of psychologists have called for a greater contribution from qualitative research (Mandill and Todd, 2002; Mandill and Gough, 2008; Henwood, 2014; Gough and Lyons, 2015). For example, qualitative methods are considered advantageous in learning about individuals' experiences (Gough and Lyons, 2015) and subjective understandings of key concepts and behaviours (Henwood, 2014). Mandill and Todd (2002) also promoted the use of qualitative approaches when conducting research where it may be unethical or unpractical to manipulate variables. The first major article on qualitative approaches in psychology (authored by Henwood and Pidgeon) was published in the *British Journal of Psychology* in 1992 and this was followed by a series of ESRC funded qualitative methods workshops for psychologists (Mandill and Todd, 2002). In the early 2000s, concerns remained that qualitative methods were marginalised in psychology and, in particular, that there were too few academics who were able to supervise or examine qualitative PhD theses. Calls were made for a Qualitative Methods Section of the British Psychological Society (BPS). This was created in 2005, over three decades after the formation of the Mathematical, Statistical and Computing Section of the BPS (1969).

The example of psychology, demonstrates that just as some disciplines may need to make a somewhat interpretivist turn, it is advantageous for sociologists to have adequate training in both quantitative and qualitative research methods to enable them to address different research questions and to investigate a variety of substantive issues.

Structure of the Thesis:

Chapter Two: Literature Review

Chapter Two discusses existing literature on the place of quantitative methods in British sociology. The chapter also examines the history of British sociology and, specifically, the status of quantitative methods throughout the discipline's development. An argument is made that a range of economic, social and political forces have prevented British sociology from engaging extensively with quantitative methods throughout its history. The rapid expansion of the discipline during the 1960s and 1970s has arguably had a large influence on the popularity of particular methods in the discipline today (Payne, 2014a: Chapter Nineteen). For instance, Abrams et al. (1981: 3) stated that the "theoretical and methodological disarray" of sociology in the 1970s could be blamed for the 'crises' currently being experienced by the discipline. Thus, reflecting on the history of research methods in British sociology can help contextualise the current deficit of number work in the discipline.

The final section of the literature review compares sociology in the UK to the discipline in other countries. Commentators have suggested that British sociology lacks a coherent core, compared with other national sociologies (HaPS, 2010). Moreover, critics have maintained that no distinctive methodologies or methods can be associated with the discipline in the UK. In particular, the chapter provides a rationale for comparing the two comparator countries; New Zealand and the Netherlands. Content analysis of the mainstream journal for the discipline in New Zealand demonstrates a marked preference among sociologists for qualitative methods over quantitative ones. Moreover, struggles to recruit students to study the discipline at degree level in New Zealand has led to research methods modules becoming optional (Crothers, 2010). By contrast, sociology in the Netherlands is portrayed as being methodologically superior to sociological research in many other countries (QANU, 2014) with students studying the discipline at degree level required to study several methods modules and to complete individual research projects (Parker et al., 2008).

Chapter Three: Survey Professional Sociologists

The methods and methodology chapter describes the research design adopted in the present study. The chapter begins by introducing a realist approach to investigating the quantitative deficit in British sociology. This is followed by details on the operationalisation of the research questions.

An online survey was developed with the aim of understanding professional sociologists' views of the function of sociology, as well as taking stock of the research practices of sociologists working in Britain. This chapter provides a rationale for the chosen method and survey mode. The chapter also discusses the different biases associated with the online survey mode and the steps taken to minimise the effects of these. Following this, is a description of how respondents were recruited and an assessment of the representativeness of the demographic of the survey sample.

The ethical implications of the research are also outlined in the method and methodology chapter. A central ethical concern with the online survey mode is the security and safety of participants' personal details and the appropriateness of the collection of 'extra' paradata on participants without their knowledge. Chapter Three describes these concerns in detail and draws on existing literature to discuss the procedures implemented in the study to minimise these ethical concerns.

The thesis then moves on to the middle section, which consists of four main chapters on data analysis.

Chapter Four: The Place of Quantitative Research in British Sociology

The first analysis chapter explores the research practices of sociologists in the UK. The findings of the survey, demonstrated that the majority of respondents identified themselves as 'qualitative researchers'. Moreover, 60% of the respondents reported using 'a lot' of qualitative methods in the last year compared to just over 15% who reported using 'a lot' of quantitative methods.

Furthermore, the analysis in Chapter Four investigates the methods that respondents stated that they had used and published with in the last year. The findings suggest that the sample were more likely to have used and published with qualitative approaches in the last year as opposed to quantitative approaches.

Demographic variables including; gender; age; seniority, and whether a survey participant had received qualification abroad, were all statistically significantly associated with the measures designed to operationalise engagement with quantitative and qualitative research methods.

Chapter Five: The Nature of British Sociology

It has been suggested that the quantitative deficit in British sociology may be a reflection of a broader issue of how the discipline is viewed by sociologists, and its presumed purpose (Williams et al., 2015; Williams et al., 2017). Following this line of enquiry, Chapter Five seeks to understand how the survey participants viewed the broader nature and purpose of British sociology. The data suggest that the discipline is often viewed as humanistic in its endeavour and is seen as oppositional to research conducted in the natural sciences. There was a strong commitment among the survey respondents toward researching and understanding the lived experiences of marginalised groups and some evidence to suggest that the discipline is viewed as having an emancipatory role to fulfil.

Chapter Six: The Future Direction of British Sociology

The third data analysis chapter is concerned with exploring the possible future direction of British sociology. The data suggests that the survey participants were concerned about the overall decline of the discipline and worried about other disciplines researching areas previously seen as topics of sociological research. Fears about the funding of British sociology in the future were a salient issue. The distribution of the survey coincided with the European Referendum in June 2016 which elicited further concerns with regard to funding and, more broadly, worries over future collaboration with academics working in higher education institutions in the rest of Europe.

Chapter Six goes on to compare different strata of respondents to make some inferences regarding the future direction of the discipline. The research practices and views of the discipline are compared by age and level of seniority. Moreover, the views of those who held teaching contracts are compared with those participants who did not teach, to investigate whether or not sociology students receive a curriculum based on a particular view of the discipline.

This leads to discussion about whether research practices and views of the discipline remain constant throughout researchers' careers or whether they are subject to change.

Chapter Seven: The Quantitative Experience of the UK, New Zealand and the Netherlands

The final data analysis chapter aims to contextualise the findings from the UK study by exploring the research practices and views of the discipline held by academic sociologists in different countries. The chapter begins by investigating the countries that the UK

respondents believed produced 'world-leading' sociology and the reasons behind this. Of particular interest is that these countries were named because of the high-quality methods and methodological training provided to sociology students in those countries. The latter section of the chapter compares and contrasts the national sociologies of the UK, New Zealand and the Netherlands.

A shortened version of the UK survey was also distributed to sociologists working in higher education institutions in these comparator countries. The findings from these surveys are reported in the final data analysis chapter.

Chapter Eight: Discussion and Conclusions

The final chapter draws together the findings and discusses them in relation to the existing literature. In particular, the chapter considers the implications of the new evidence gathered through the survey. Specifically, adopting Veblen's notion of 'trained incapacity' Chapter Eight demonstrates that the research findings have implications for teaching initiatives and the continued professional development of academic sociologists (Veblen, 1993; Wais, 2005). The thesis concludes with a number of suggestions for possible future research.

Chapter 2 : Literature Review

"[…] the successive waves of postmodernism and the 'cultural turn' have

eroded the discipline's coherence, leaving the beach strewn with

analytical flotsam and jetsam."

(MacInnes, 2004: 531)

1. Introduction and Chapter Structure

The aim of this thesis is to explore professional sociologists' research practices and views on the nature and function of their discipline, particularly in relation to quantitative research methods. The research has been informed by the development of the Q-Step programme; an initiative funded by the Economic Social Research Council (ESRC), Higher Education Funding Council for England (HEFCE) and the Nuffield Foundation to improve the quantitative methods training of social science students. The introduction of this programme raises questions regarding the current status of quantitative methods in the discipline and, in turn, sociologists' views on the purpose of the discipline.

This chapter consists of three main sections. In order to contextualise the research problem and to provide a clear rationale for the research, it begins by bringing together literature which has explored the extent to which quantitative approaches might be considered marginalised in British sociology. Specifically, it will describe key findings from studies of content analyses of mainstream British sociology journals, which demonstrate that the output of sociology in the UK is strongly *oriented away* from using quantitative methods. It will describe how, in response to this 'crisis' of the role of number in the discipline, calls have been made for greater methodological pluralism in British sociology. It will also outline key findings from studies which have investigated students' views on research methods teaching and learning. The second section of the chapter traces the history of academic sociology in the UK. It outlines how social, economic and political factors have prevented sociology in British academia from engaging extensively with quantitative research. The chapter concludes by considering the place of quantitative research in the discipline overseas. It is believed that exploring other national sociologies can help toward understanding students' resistance to learning quantitative methods and provide examples of best practice.

2. Deficit of Quantitative Research in British Sociology

To begin, the chapter will draw on previous literature to highlight the absence of quantitative research in mainstream British sociology journals. It will be suggested that this marginalisation of quantitative research in British sociology raises concerns at two different levels. Firstly, there are concerns relating to the status of the discipline and its ability to inform policy and practice and to engage with academics both internationally and across academic borders. Secondly, there are worries over the numerical competencies of sociology graduates. It has been argued that good quantitative skills help sociology graduates to become more effective critical consumers of statistics and as well as providing them with transferable skills for the work place (MacInnes, 2009; Allebon, 2013; Nuffield Foundation, no date).

2.1 Output of the mainstream British Sociology journals

Previous research has revealed that the majority of the output from mainstream British sociology journals consists of qualitative research. For example, Bechhofer (1981) compared the output of the *British Journal of Sociology*, *Sociological Review* and *Sociology* for the years 1977 to 1979. Bechhofer's (1981) final sample consisted of 198 articles. In an effort to index the degree to which authors utilised quantitative methods, he used a five-point scale to categorise the statistical sophistication of the articles studied. The scale ranged from; (a) no quantification, (b) frequencies or reporting statistics from other sources, (c) basic univariate analysis (measures of central tendency), (d) bivariate analysis, to (e) more complex statistical analysis, including multivariate techniques. Over 60% of the articles published in the two-year period studied, contained no quantification. Just under 20% of the papers presented frequencies or reported statistics from other sources. Meanwhile, 10% of the articles investigated fell into the third category, employing univariate analysis. A minority of papers used bivariate analysis (2%) and less than 10% utilised more complex statistical analysis. Furthermore, Bechhofer (1981) observed that approximately half of the papers in the final group (e) were based outside of UK.

Later, Bechhofer (1996) repeated his analysis for the output of the same three journals for the years 1992 to 1994 (n=287). This study concluded that there had been little change in the proportion of journal articles using quantitative approaches. For 1992 to 1994, 70% of articles from across the three journals, fell into the first category with no quantification. Only 4% and 9% of papers fell into the last two categories respectively. This means that less than 5% of articles published in mainstream British sociology journals between 1992 and 1994

employed bivariate analysis and that less than 10% of articles featured multivariate analysis. Additionally, Bechhofer (1996) noted that again, the majority of articles that fell in the most statistically sophisticated category were authored by international scholars, mainly from Australia, Canada and the USA.

Similarly, Bulmer (1989) noted the absence of empirical papers from the *British Journal of Sociology* between 1986 and 1987. Of the 52 papers included in his final sample, 40% could be classified as purely theoretical papers and 13% as historical papers. Meanwhile, 46% of papers contained empirical data. In contrast to Bechhofer's (1981) findings, Bulmer (1989) highlighted that between 1986 and 1987 over 80% of the articles published in the *British Journal of Sociology* presented empirical data that contained some element of quantification. However, Bulmer (1989) again cautioned that 40% of these papers were authored by scholars from outside of the UK. He also argued that a great deal of quantitative sociology was being produced and reported by academics working in other disciplines, notably economics and demography. While sociology has no monopoly over other social sciences to investigate certain social issues, Bulmer (1989) questioned the health of a discipline that is so resistant to engaging with particular styles or approaches to research.

Payne et al. (2004) analysed the content of the articles published in *Sociology*; *Sociological Review*; *Sociological Research Online,* and the *British Journal of Sociology* in the years 1999 and 2000. These authors found that just 14.3% (35) of papers published in this journal during the time period studied, utilised quantitative methods. This was in comparison to over 40% (98) that employed qualitative methods, while the remaining papers used a mixture of quantitative and qualitative methods or were non-empirical. The same paper also reported on the prevalence of qualitative papers presented at the British Sociological Association (BSA) conference 2000, in contrast to the number of quantitative papers. They reported that almost 50% of the papers at the BSA conference (n=102) discussed research using qualitative approaches. In contrast only 10% of the papers drew on research conducted using quantitative approaches.

Likewise, MacInnes et al. (forthcoming) replicated Bechhofer's (1981; 1996), Bulmer's (1989) and Payne et al's (2004) studies but covering a much longer period, from 1960 to 2010, exploring the research methods employed in 291 papers published in *Sociology; Sociological Review,* and the *British Journal of Sociology*. This work showed that, over the fifty-year period studied, the number of articles using purely qualitative methods rose from 8% to 43%. At the same time, there was a decline from 32% to 17% in the proportion of articles using only

quantitative methods. Furthermore, for the period studied, the percentage of articles where authors had utilised a mixture of qualitative and quantitative methods decreased from just over one quarter to approximately 10%. MacInnes et al. (forthcoming) state that sociologists are becoming increasingly specialised in particular methods of data collection and analysis. Meanwhile, the proportion of non-empirical papers has remained relatively constant, with 34% of papers in the earlier time period being classified as non-empirical and 30% of papers published in the journals between 2008 and 2010 being non-empirical.

Separately, Roth et al. (2016) found that the majority of articles published in *Sociology* in 2013 employed qualitative research methods. The authors noted that while approximately one third of papers used some combination of qualitative and quantitative methods, very few papers were purely quantitative in their approach. Moreover, in an online survey conducted with the aim of understanding the views of both members and non-members of the BSA on the learned society's journal, *Sociology,* Roth et al. (2016) discovered that this absence of quantitative research in the journal was frequently noted by participants.

With regards to the *topics* that papers address in the mainstream sociology journals, Payne et al. (2004) and Crothers (2011), invited comments on the scope of sociological research in the UK. Looking at the output of the *British Journal of Sociology*; *Sociological Review,* and *Sociology* from 1952 to 2006, Crothers (2011) concluded that while certain topic areas have grown and shrunk over the years studied, there have been no major changes in the substantive issues that are addressed in mainstream British sociology journals. Payne et al. (2004) showed that the most popular topics featured in mainstream British sociology journals in the years 1999 and 2000 were; 'Stratification and Class' and 'Education' and 'Social Change/Technology'. They explained that the lower than expected proportions of papers exploring topics such as 'Gender' or 'Health' could be explained by the presence of well-established specialised journals in these research areas.

However, questions have been raised over the validity of studies enumerating the status of quantitative methods in British sociology by exploring the output of the mainstream journals. For instance, Platt (2014b) cautioned readers against drawing generalisations on the nature of national sociologies based on such studies, stating that serious consideration needs to be given as to whether the analysis of a few journals over a certain time frame provides a valid representation of a national sociology. Payne et al. (2004) noted that an earlier draft of their paper was critiqued by a reviewer who suggested that quantitative sociologists may choose to publish in more specialist journals or in non-British journals resulting in an apparent anti-

quantitative bias in the mainstream British sociology journals. However, the authors reported no anecdotal evidence to support this claim and stated that:

> […] if the mainstream journals and the annual conference of its sole learned society did not reflect the contemporary priorities and standards of the discipline, it would indeed be a very strange world. (Payne et al., 2004: 156)

Likewise, other authors have explored the extent to which British sociologists are publishing quantitative work in American and European journals (Bechhofer, 1996; MacInnes et al., forthcoming). Bechhofer (1996) conducted a content analysis of papers published in the *European Sociological Review* between 1992 and 1994 (the same dates as his study of the output of mainstream British sociology journals). The findings showed that nearly all the articles published in the *European Sociological Review* during this period utilised quantitative methods. Almost one quarter of the quantitative papers were authored by British academics. However, on closer inspection, many of these papers were produced by a very limited group of UK sociologists. Similarly, MacInnes et al. (forthcoming) investigated the British output in the *American Journal of Sociology* and the *European Sociological Review* and found very little evidence of British authors publishing in alternative outlets.

When exploring the level of quantification in more specialised sociology journals in the UK, Bechhofer (1996) also found little support for the notion that quantitative researchers are more likely to publish in these outlets. Content analysis of the sociology of education journals (*British Educational Research Journal; British Journal of Educational Studies; British Journal of the Sociology of Education; Oxford Review of Education,* and *Research Papers in Education*) showed an even greater marginalisation of quantitative methods than the mainstream sociology journals. Political science journals (*British Journal of Political Science; Political Studies,* and *Electoral Studies*) did contain more quantitative papers, however, Bechhofer (1996) highlighted how very few of these quantitative articles were written by UK authors, and how these journals are arguably the main outlets for the discipline politics as opposed to political sociology.

2.2 Why is the quantitative deficit problematic?

The existing literature explores some of the possible negative consequences of the reported deficit of quantitative research in British sociology. These concerns can be divided into two main groups. Firstly, these relate to the status, purpose and future of the discipline, while secondly, they consider issues related to the transferable skills and employment prospects of sociology graduates.

2.2.1 Status, Purpose and Future of the Discipline

Burgess and Bulmer (1981) argued that the discipline's ability to contribute to research and policy would be jeopardised if it did not begin to value the role of numbers more highly. More than two decades later, MacInnes (2009) was still arguing for the necessity for professional social scientists to be better equipped with research skills which would allow them to engage with *all* research perspectives and approaches in their substantive field. He argued that social scientists need to have the confidence to utilise both quantitative and qualitative methods, so that they can evaluate more effectively and draw on a more comprehensive range of research output in their disciplines and specific research areas. However, MacInnes (2009) described how academic social science departments in the UK often only have one or two members of academic staff sufficiently confident to teach quantitative methods at the undergraduate level, let alone engage with quantitative concepts in their own research. There are concerns that, as well as impacting on the intellectual health of the discipline, this could reinforce students' negative attitudes toward learning quantitative methods and lead to students questioning the relevance of quantitative skills to their discipline.

Moreover, there are fears that by not engaging with quantitative research, social scientists are undermining the current research capacity of social science disciplines in the UK (MacInnes, 2009; British Academy, 2012). While there has been an increase in data availability and huge investments in data infrastructure for social science research, there are concerns that sociologists in Britain lack the expertise to analyse these large datasets (British Academy, 2012). This skills deficit has meant that, increasingly, important quantitative tasks have been left to economists who do have the necessary training and skills, but do not necessarily have the sociological insights that professional sociologists could provide.

The lack of engagement with quantitative methods could potentially ghettoise British sociology from other disciplines and from social science research in other countries (Payne et al., 2004; Lynch et al., 2007).

2.2.2 Numerical Competent Graduates

Additionally, there are concerns regarding the numerical competencies and transferable skills of sociology graduates in the UK, given these students' negative attitude toward learning quantitative methods.

It has also been argued that there is a danger that by not being familiar with quantitative techniques, students may struggle to engage with important literature in their substantive

field (MacInnes, 2009). Furthermore, students may not be equipped to answer their own research questions in dissertations or research projects (Payne et al., 2004).

Equally, MacInnes (2009) stated that many social science graduates currently lack the necessary skills to effectively handle quantitative information. This could prevent social science graduates in the UK from being able to differentiate between strong and weak evidence, and, ultimately, limit their capacity to be active, informed citizens. Indeed, there are growing fears that students will be unable to critically consume media stories or contribute to discussions on public issues (Payne et al., 2004)

Rice et al. (2001) concluded that undergraduate quantitative methods training needed to be improved to ensure graduate employment and to equip students with the necessary skills to become critically numerate citizens. These authors advocated statistical literacy for undergraduates in the social sciences and statistical competency for postgraduates. This is reminiscent of calls made in a BSA conference in 1956 on the 'Present State of Professional Sociology', where it was concluded that "undergraduate courses should be 'broad and humane', while serious research methods should be taught at the postgraduate stage" (Platt, 2003: 162).

To engage students with quantitative methods it has been suggested that the necessity or importance of quantitative research skills for future employment prospects needs to be stressed (British Academy, 2012; Bullock et al., 2014; Brookfield, 2016). It has been reported that students' ambivalence toward learning quantitative methods may be linked to the increase in the number of students approaching their undergraduate studies in a more strategic manner (Brookfield, 2016). Borrowing the ideal types; 'players' and 'purists' from Brown and Hesketh (2004), it has been suggested that unlike previous generations, undergraduate students do not approach a sociology degree with, necessarily, a real interest in becoming a social researcher. Instead, undergraduates can be seen as 'players', adopting a strategic approach to their learning and engaging with minimal content sufficient only to enable them to obtain a formal degree qualification and thereby access to the labour market. With this in mind, it is suggested that the importance of quantitative methods learning needs to be explicitly linked to the rhetoric of employability.

Related to this, Chamberlain (2015) found that social science students could not always see the relevance of quantitative research skills for their future employment. In their survey of first year sociology, criminology and social policy undergraduates at Loughborough University, just 52% believed that that quantitative skills would be valued by potential

employers. Moreover, quantitative skills were often deemed to have less value for employment than discipline specific knowledge and other transferable skills such as communication skills and critical analysis skills.

2.3 Broader problem with number in UK

Williams et al. (2008) suggest that the 'crisis' of quantitative research in British sociology needs to be considered in the wider context of the shortage of students pursuing numeracy based subjects including, maths, engineering and the physical sciences at post-compulsory levels.

There has been a longstanding concern about the widespread lack of engagement with numeracy in the UK (Department for Education, 2010; Hodgen et al., 2010; ACME, 2011; Nuffield Foundation, 2012; Bullock et al., 2014). Hillman (2014) traced this concern back to the 1800s when Babbage commented that the UK was already falling behind other countries in terms of mathematical ability. Participation in mathematics at post-compulsory level is particularly low in England, Wales and Northern Ireland "with approximately 13% of 16-18 year olds taking A-level mathematics in England, 11% in Wales and 15% in Northern Ireland" (Hillman, 2014: 6).

Hodgen et al. (2010) compared the mathematics education provision for upper secondary students in twenty-four different countries, including England, Scotland, Northern Ireland and Wales. England, Northern Ireland and Wales were the only countries included in the study which exhibited participation rates in mathematics at upper secondary level of less than 20% (Scotland had a slightly higher participation rate, with between 21% and 50% of students studying mathematics). In comparison, Hodgen et al. (2010) described how continued study of mathematics was compulsory for upper secondary school students in many countries including, Sweden, Hong Kong, Germany and Hungary. Further, in countries such as the Netherlands, students are streamed into different educational pathways based on their academic preferences and attainment to date. Many of the pathways include the study of mathematics, however, the maths taught is tailored to the skill needs of the students based on the other subjects that they study and intend to study at university level.

Similarly, the British Academy (2012) noted that the levels of numeracy in the UK were behind those of many other countries. There is an enduring problem of attracting students to study mathematics at post-compulsory levels (e.g. A-Level) - and this means that often students arrive at university with limited numerical skills and little confidence with number work (British Academy, 2012). Many social science undergraduates will have typically had at

least a two-year gap in their mathematics learning (having chosen non-numerical subjects at A-Level). This can affect students' confidence and impact on their ability to understand the relevance of quantitative approaches to studying the social world.

Research into the content specification of A-level social science qualifications in the UK, has demonstrated that students studying sociology at post-16 receive minimum training in quantitative methods (Nuffield Foundation, 2012). It is reported that A-level sociology students are often given a choice of questions to answer in exams and can achieve well, regardless of whether or not they engage with quantitative concepts or existing quantitative research. Looking at the sociology A-level exams from the year 2010, the number of marks that required students to use mathematical or quantitative skills was less than 3% across each of the three awarding bodies. The quantitative concepts that students who studied sociology with one of these awarding bodies covered, ranged from, sampling; interpreting statistical data; measures of central tendency; percentages, to proportions and ratios.

Likewise, Scott Jones and Goldring (2014) highlighted how A-level sociology students had few, if any, opportunities to conduct their own research, or work directly with data. Based on findings from a focus group discussion with A-level teachers in 2013, Scott Jones and Goldring (2014) cited, lack of resources, timetabling restrictions, and lack of specialist teacher training as factors preventing students from learning more than just the strengths and limitations of a selection of different methods.

The absence of quantitative methods teaching and training at A-level means that students who choose to pursue sociology at degree level are often shocked by the numerical content of their degree programmes (Acton and McCreight, 2014). For instance, one student interviewed as part of Acton and McCreight's (2014: 1) study explained:

> Before I came to uni I never thought that sociology would involve quantitative research. I had no idea. Before I came to university sociology was Karl Marx, Weber etcetera. More theoretical than practical.

2.4 Sociology Research Methods Teaching and Learning
2.4.1 Research Methods Teaching Provision

The Quality Assurance Agency publishes subject benchmarks which outline the key skills and competences that graduates should possess after completing a degree in a particular discipline (QAA, 2016). As opposed to a rigid curriculum, the QAA produce subject benchmarks as a guide for higher education institutions on the key criteria degree

programmes should include to ensure that students receive a rounded education. It is claimed that adherence to the subject benchmarks also enables higher education institutions to produce graduates with transferable skills which will help students gain employment. The benchmarks are written by a group of subject specialists from subject specific learned societies and higher education departments. With regard to research methods teaching and learning, the QAA sociology benchmark (2016) stated that sociology graduates should be able to recognise, utilise and evaluate both qualitative and quantitative concepts, methods of data collection and analysis techniques. Moreover, during their degree, sociology undergraduates should encounter different data sources across different modalities including digitalised data. Graduates should be able to offer potential employers, computer skills that enable them to effectively analyse quantitative data. Further, during their studies, students should learn to, and will often be required to, demonstrate their ability to plan and conduct sociological research using appropriate methods and analysis techniques. According to the benchmark, students should learn when and why it is appropriate to use particular approaches.

Despite this, concerns exist over the long-term provision of quantitatively competent social science graduates. The Higher Education Funding Council for England (HEFCE, 2008; 2011) recognises quantitative social science as a 'strategically important and vulnerable subject' (SIVS). A SIVS is a discipline deemed by the Government as having an uncertain future, but nevertheless considered as having a vital role in addressing issues of national interest. HEFCE supports activities that effectively recruit students to study SIVS and work to secure a continuous supply of excellent teaching and research in SIVS areas.

Williams et al. (2004) described the findings from a study exploring the place of quantitative methods in undergraduate sociology degree programmes. A telephone survey of all higher education institutions in the UK offering single honours sociology degree programmes was conducted between December 2002 and March 2003. Of the 90 eligible departments, 82 departments partook in the research. Almost 50% of respondents stated that the teaching of quantitative methods contributed between 5-10% of the total teaching for the sociology degree programme offered in their department. A further quarter of respondents reported that the teaching of quantitative research methods made up less than 5% of their sociology degree programme. Most of the respondents stated that students were taught quantitative methods in discrete modules and there was very little evidence of quantitative material being embedded in substantive sociology modules. Of the sociology courses included in the study, 54% of them contained approximately equal amounts of quantitative and qualitative

methods teaching. Meanwhile, approximately 15% of sociology courses contained more quantitative methods teaching than qualitative methods teaching. Just under 30% of courses reported containing more qualitative methods teaching than quantitative methods teaching.

The same study also explored BSA delegates' views on the teaching of quantitative methods. A paper survey was included in delegate packs for the BSA conference in April 2003. Unfortunately, only 13% (n=54) of all delegates responded to the survey so caution needs to be exercised when interpreting the findings. There is likely to have been a self-selection bias among the respondents with those most enthusiastic about teaching quantitative methods and those opposed to the greater investment toward teaching resources for quantitative methods being more likely to respond. However, the findings from the survey were nevertheless similar to previous and subsequent research findings. Almost three quarters of respondents agreed with the statement that students choose to study sociology at degree level to *avoid* number work. This opinion could have been shaped by respondents' own negative experiences of having to learn quantitative methods as part of their own degree programme. Indeed, Williams et al. (2004) went on to report that more than a third of survey participants stated that they had not enjoyed learning quantitative methods. Almost all of the respondents (94%) believed that the ESRC could do more to help promote quantitative research, while three quarters agreed that the BSA could assist more in promoting quantitative research and the teaching of quantitative skills and techniques.

Later, consultation days at South Bank University and Edinburgh University with teachers of quantitative methods, reinforced many of the findings from the survey. In particular, there was a consensus that lecturers play a pivotal role in reinforcing and perpetuating negative attitudes toward quantitative research. Participants in the consultation days described members of academic staff portraying quantitative research negatively to students.

Following this, Williams et al. (2008) conducted the first national survey of sociology students' attitudes toward learning research methods. An online survey was distributed to a random sample of 34 sociology departments across England and Wales. In total, 738 undergraduate students responded to the survey. Students were asked about their A-level subject choices; why they chose to study sociology at degree level, as well as their views on the status of sociology and, in particular, whether they saw the discipline as closer to the arts and humanities or the natural sciences. The findings of the study suggested a negative attitude among students toward learning statistics and quantitative methods. More than half of the respondents agreed that learning statistics made them feel anxious, 64% agreed that

they would rather write an essay than analyse data and just under 20% of respondents revealed that they chose to study sociology at degree level because they did not like maths. Perhaps more worryingly, the authors highlighted an association between students' attainment in research methods assessments and attitude toward quantitative research. Students displaying higher levels of negativity toward learning quantitative methods were more likely to have failed or attained a third in research methods assessments, while undergraduates who were more positive about quantitative research and acknowledged the necessity of learning quantitative methods tended to achieve either upper seconds or firsts. The authors argued that while existing qualitative research and anecdotal evidence would suggest that a negative attitude would lead to poorer assessment results, there is no conclusive evidence to suggest the direction of the relationship between attitude and assessment performance.

Meanwhile, in their study of first year social science undergraduates (n=55) at Loughborough University, Chamberlain et al. (2015) found that 60% of students reported not expecting to have to study *any* mathematics as part of their degree programme. Almost 50% of the first-year cohort surveyed stated that they choose their degree subject as they did not like topics that involved lots of mathematics. Over a quarter of the students agreed that they avoided studying materials which contained numbers and 65% agreed that they would rather write an essay than analyse data.

In a survey designed to explore current quantitative methods teaching provision, MacInnes (2009) found that most quantitative methods teaching took place in the second year of social science degrees. 116 quantitative methods teachers in higher education institutions were surveyed. Many of those included in the survey worked in departments where there was already a commitment to increasing the quantitative methods capacity and training of the department. It was found that social science students received approximately ten hours of computer lab or workshop sessions dedicated to learning quantitative methods over their three years of undergraduate study. Teaching of quantitative methods seemed to be restricted to discrete research methods modules for many degree programmes, with little evidence of quantitative concepts being discussed in substantive modules. This lack of engagement with quantitative methods across the curriculum was considered as reinforcing the view that quantitative concepts were marginal and irrelevant to the social sciences. Of the programmes studied, MacInnes (2009) noted that research methods modules seemed to follow a similar pattern across institutions. Generally, students were introduced to survey design, questionnaire design and basic descriptive statistics. Half of the courses that

MacInnes (2009) studied, taught students about correlation and some, taught students about intervening variables. Only a quarter of university teachers believed that quantitative methods were mainstream in their discipline, a priority for their department, or that their department or discipline had the necessary time and resources to teach quantitative methods effectively. Typically, respondents stated that there were only one to three people in their department able to teach quantitative methods. Due to the non-representative nature of his small-scale study, MacInnes (2009) noted that it was likely that this number was inflated and much lower in universities where little attention has been given to the quantitative methods teaching provision.

This 2009 survey was replicated in 2014 (n=178). MacInnes (2015) warned that similar to the earlier survey, a self-selecting bias and a low sample size may have limited the representativeness of the final survey sample. However, the author was cautiously optimistic in his interpretation of the findings, and suggested that more positive attitudes around teaching quantitative methods were beginning to emerge. For instance, in 2014, 81% of respondents strongly agreed with the statement 'I enjoy teaching quantitative methods' compared to 68% in the 2009 survey (MacInnes, 2015: 17).

In contrast to numeracy skills, good writing and literacy skills are repeatedly emphasised by teaching staff as essential in sociology degree programmes and in qualitative research. Scott Jones and Goldring (2014) highlighted the lack of quantitative methods support that was available to sociology undergraduates and commented that where support was available it was comparatively much lower than for that provided for essay writing. They described how students had to actively seek support with quantitative methods learning while support with literacy skills was much more widely advertised and available.

2.4.2 Quantitative Research Methods Teaching Innovation

In 1989, the Economic Social Research Council (ESRC) introduced formal postgraduate training guidelines (ESRC, 2005). These guidelines set out a more rigorous training programme for social science postgraduates and stressed that PhDs should be completed in a four-year time frame. This was in a move to raise the status of postgraduate qualifications in British social sciences. In particular, completion rates for social science PhDs were much lower than those in the natural sciences and engineering (Hockey, 1995) and, therefore, change was deemed necessary. The Chair of the Council, Howard Newby, wanted the new training programme to enable postgraduates to become confident in new, modern techniques and to utilise quantitative methods more than previous generations (ESRC, 2005).

Further ESRC reforms to the postgraduate quantitative methods training took place under the tenure of Gordon Marshall between 2000 and 2002 (MacInnes, 2015). However, it became apparent that the low levels of quantitative methods skills that students possessed, on entry to postgraduate study, often restricted their ability to engage with and understand postgraduate quantitative methods courses. Subsequently, calls were made for increasing the undergraduate quantitative methods capacity for social science disciplines.

In 2004, the ESRC established the National Centre for Research Methods (NCRM, No Date). The NCRM aim to increase social scientists' engagement with a greater variety of approaches through the development of extensive research methods training and capacity building programmes.

Later, in 2006, the ESRC commissioned projects to investigate innovative quantitative methods teaching strategies and a review of international best practice. In 2011, HEFCE and the British Academy funded a further twenty curriculum innovations and researcher development initiatives. These projects have resulted in several academic publications as well as teaching resources that have been publicised and made accessible to all. MacInnes (2009) suggested that the focus of researcher development initiatives was revised to concentrate on the upskilling of lecturing staff to ensure that more social science academics could support, examine and teach quantitative methods. However, the success of initiatives has been limited and a quantitative deficit in the social science disciplines seems to persist and to be a continuing concern (MacInnes, 2009; Bullock et al., 2014; Brookfield, 2016; Nuffield Foundation, no date).

One example of a curriculum innovation is described by Bullock et al. (2014) who sought to develop a more integrated curriculum for first year social science students at the University of Surrey. This involved using examples from substantive modules in quantitative research methods modules and vice versa. A new interactive online tool called 'DiscoverQuants' was also created to support students' learning. The resources were created on the basis of feedback provided in focus groups with third year undergraduate students. A factor that arguably, negatively, influenced the success of the project was the perceived burden for staff to increase the use of quantitative examples in their teaching.

In a different study, second year politics students at the University of Sheffield, were taught quantitative methods through the use of contemporary examples of quantification in their discipline (Carey et al., 2009). Their assessment task was also re-designed to be more

engaging, affording the students the opportunity to conduct their own secondary data analysis on an existing dataset to answer their own research questions. The University also introduced a third year module, specifically to support those students who had opted to complete a predominately quantitative dissertation. However, the authors provided no student evaluation of the new modules or assessment task, therefore it is difficult to assess the success of the initiative.

Dale et al. (2008) described a project that they implemented at Manchester University, designed to increase students' awareness of the quantitative techniques which they could use in their final year dissertations. The authors ran a series of quantitative methods workshops and weekly support clinics for undergraduate students. While the student feedback on the workshops was very good, scoring a mean of 4.45, where 1 was equal to poor and 5 was equal to excellent, the use of *financial incentives* to encourage students to participate and the concerns over the intensive time investment by staff to create workbook materials, begs questions over the sustainability of such a project.

Falkingham et al. (2009) also launched a project to increase the number of students opting to use quantitative methods in their dissertations. The project was based at the University of Southampton and involved a series of summer and winter schools as well as regular drop-in clinics. The authors reflected on the success of the project and noted the increase in confidence with using quantitative methods among the students. It was also celebrated that some of the students who completed the project went on to study social statistics and demography at master's level. However, it is worth noting that for one year of the project, students were awarded a financial incentive for their involvement and while this was not available during the second year of the project, students accepted on to the project were required to have achieved at least an upper second in their research methods module before being considered for the course. Arguably, the pre-requisite requirement of an upper second makes the success of the project less noteworthy. It is possible that students working at this level already had a more advanced understanding of quantitative methods. Indeed, as described earlier, Williams et al. (2008) found that students in their study who had received a first or an upper second in their research methods assessments were more likely to report enjoying learning about surveys and to demonstrate a distrust of statistics than those who had received a fail or third in their research methods assessments. Separately, Falkingham et al. (2009) commented that despite being involved in the initiative, some students were still apprehensive about using quantitative methods independently.

Williams et al. (2015) reported the results of a quasi-experiment where quantitative research methods teaching and learning were strategically embedded into substantive social science modules. The authors explored how students' attitudes toward learning quantitative methods, and their confidence with quantitative concepts changed between two time points. Prior to the experiment (time one), approximately 18% of the experimental group (who were to have quantitative research embedded in their substantive modules) agreed with the survey statement 'You don't need to use quantitative data in order to understand sociological phenomena' (Williams et al., 2015: 446). Similarly, just over 20% of the control group (who did not have quantitative research methods strategically embedded in their substantive modules), agreed with this statement. Over the course of the experiment the percentage of respondents in the experimental group who agreed with this statement *rose* by 12.5% while the percentage increase was only 8.8% for the control group. Moreover, the percentage of students in the experimental group agreeing with the statement 'Understanding statistics helps me to understand social research' increased between the two time points, while the percentage of students agreeing with the same statement in the control group decreased (Williams et al., 2015: 446). The findings suggest that the increased exposure to quantitative methods enabled the experimental group to gain a greater understanding of the relevance and necessity of quantitative methods in the social sciences, when compared to the attitudes held by the control group.

With regard to changes in perceived difficulty of quantitative concepts, Williams et al. (2015) found that being part of the control group, as opposed to the experimental group, was more advantageous. Contrary to expectation, the control group reported statistically significant decreases in perceived difficulty for the following concepts; mode, percentages, statistical significance, correlation, chi-square, cross-tabulations, frequencies, boxplots, line graphs, scatter plots, standard deviation, validity, induction and deduction. While being in the experimental group led to statistically significant decreases in perceived difficulty for the following concepts only; averages, mean, median, cross-tabulations, pie-charts, scatterplots, standard deviation and deduction. Equally, following the intervention (time two), the experimental group were less likely than the control group to agree with the statement 'I feel confident about learning statistics' and almost 20% of the experimental group agreed that 'I don't think social science students should have to study statistics' in comparison to 10% of the control group. Williams et al. (2015) puzzled over the surprising differences in confidence and perceived difficulty of concepts between these two groups at time two given that all students received the same core research methods teaching. The authors suggested

that the experimental group may have been more critical of their level of understanding of concepts by the end of the study (time two) due to the greater exposure to quantitative methods that they received in their substantive modules. This may have resulted in them perceiving concepts as more difficult than they anticipated and hence go some way toward explaining the differences in attitudes between the two groups. Alternatively, other intervening factors such as pedagogic style or mode of delivery may go some way toward explaining the findings.

It can be seen therefore, that students' lack of engagement with quantitative research in the social sciences needed addressing. Hence, the Nuffield Foundation, ESRC and HEFCE launched a major, new, well-resourced initiative: the Q-Step programme (Allebon, 2013; Nuffield Foundation, 2012). The funding bodies, along with the Royal Statistical Society and the British Academy, believed that a long-term investment into the teaching and training of quantitative skills for undergraduate social science students was necessary. It was deemed that only an intensive project would have the potential to bring about the necessary and sustainable change in students' confidence and ability to engage with quantitative methods.

The aims of the Q-Step programme are driven by two main concerns. The first, that the social science disciplines (excluding psychology and economics), are currently unable to meet the demands from the Government and other businesses and charities who rely on social scientists' substantive knowledge to aid in the analysis and evaluation of data. The Nuffield Foundation, ESRC and HEFCE believe that the limited quantitative skills of social scientists in the UK are impacting on the research capacity of these disciplines. In particular, the ESRC are frustrated that existing large-scale national datasets are underused and may be neglected in the process of addressing policy concerns. Secondly, there are worries regarding the future employability of social science students who have little or no experience using quantitative research methods.

With £19.5 million investment, the programme aims to work in collaboration with 15 universities to explore ways of improving the quantitative training of students throughout their educational life. The higher education institutions involved with the project have been tasked with overhauling their current research methods training provisions by extensive module and curriculum redesign, as well as expanding appropriately targeted space in undergraduate programmes (Nuffield Foundation, no date).

However, consensus over the necessity and form or function of initiatives designed to increase the quantitative research capacity in British sociology has not been achieved. While

direct, explicit critiques against the Q-Step project have been minimal, concerns have been published over whether the direction of initiatives are misguided. For instance, those advocating the use of complexity models such as Byrne (2012: 15), argued that the deficit of quantitative methods in the discipline may reflect the limited relevance of linear approaches frequently taught, stating:

> There is no real critical consideration of whether a good reason for the lack of employment of such methods is that, to put it plainly, they are essentially useless.

Similarly, Castellani (2014) also cast doubts over initiatives taken across the globe to encourage social science undergraduates to engage with quantitative methods. In recognising the necessity for change in the current provision of training in quantitative methods and research methods to social science undergraduates, it is argued that to date;

> […] the most common curricular response to the failures seems to be a push for even more statistics - as, for example, in the UK's new Q-Step movement… (Castellani, 2014)

Moreover, as noted elsewhere (Scott Jones and Goldring, 2014), the majority of literature documenting the shortage of quantitative research in British sociology, and other cognate social science disciplines, has been published by a small number of academics. What is more, many of these academics are working in institutions or departments which are, or have been, in receipt of support to develop curriculum resources to enhance the quantitative methods teaching provision. Hence, existing literature dominating the field could be criticised for being biased toward a particular self-serving perspective, while side-lining the views of others.

Despite these criticisms, calls for greater statistical literacy have been made from *outside* agencies and academics who do not have a stake in the Q-Step project or previous ESRC funded programmes. For example, Cambridge University did not secure funding to become a Q-Step centre. However, they have subsequently developed their own quantitative methods initiative involving student placements, dissertation prizes and curriculum changes (CUQM, no date).

Furthermore, the charity National Endowment for Science, Technology and the Arts have described how "UK companies across all sectors are experiencing a quantitative turn" (NESTA, 2014: 4). The Model Worker's Report published by the charity highlighted a shortage of prospective employees able to understand and work with 'big data', with these

recruitment difficulties being further exacerbated outside of London. NESTA have stressed the necessity for improved data handling, statistical training and numeracy across the UK education system and support the Q-Step programme.

Additionally, international literature has made the case for students around the globe to gain an understanding and confidence with using quantitative techniques (for example; Murtonen and Lehtinen, 2003; Wild et al., 2011; McConnell et al., 2013). Swiss academics, Crettaz von Roten and de Roten (2013), cited evidence to suggest that a lack of statistical literacy is preventing students from correctly interpreting basic graphs, charts and percentages. This body of literature attests to the need for change given the authority that statistics are increasingly having in everyday life, policy and practice. Similarly, Wild et al. (2011: 248) at Auckland University, underscored the importance of quantitative methods teaching and training and argued that:

> […] there is a treasury of life skills lessons within statistics of value in the future lives of students regardless of what they end up doing.

2.5 Methodological Pluralism

As a result of the side-lining of quantitative research in British sociology, as documented above, calls have been made for greater levels of tolerance and acceptance of a range of different methods. Specifically, methodological pluralism is being encouraged as an approach which promotes selecting the most appropriate method to answering a research question (Williams, 2003; Payne, 2006, 174-176; Lamont and Swidler, 2014). Methodological pluralism emphasises the importance of context in choosing an appropriate method to study social phenomena (Dainty, 2007; Lamont and Swidler, 2014) while emphasising the need to consider the potential strengths and limitations of different methodologies (Williams, 2003).

Different variants of methodological pluralism have been suggested (Dainty, 2007). *Loose* methodological pluralism encourages an understanding of different research paradigms, methods and approaches, but does not prescribe when and how approaches should be utilised. In contrast, '*complementarism*' argues that certain situations lend themselves more or less to different paradigms, research methods or approaches. This means that sociologists who may not use mixed or multiple methods in one research project, might still be considered methodological pluralists. This is because they have evaluated the most suitable approach to utilise to answer their particular research question. For instance, Moran-Ellis et al. (2006: 20) stated:

[…] even in studies where, for pragmatic or epistemological/ontological reasons, a decision is made not to include mixed or multiple methods in the research design, a willingness to explore their use and potential contribution (whether that be in combination or integration) enriches both the theoretical and epistemological approaches taken to the topic in question.

Finally, *strong* pluralism advocates that mixing and blending methods from different paradigms is advantageous (Dainty, 2007). The strong variant of methodological pluralism is all but indistinguishable from mixed methods research and could explain why these terms are often used interchangeably.

The results of a content analysis of mainstream British sociology journals, conducted by Payne et al. (2004), led them to argue that British sociology is not a methodologically pluralistic discipline. The authors argued that for a discipline to be considered methodological pluralistic, it is not necessary for all sociologists to utilise or be experts in all research methods. Rather, the total output of the discipline should demonstrate engagement with various methods and approaches. This variety is essential in order to adequately address different research questions at both the macro and micro levels.

2.6 Section Summary

Based on the literature presented above, the current research seeks to explore the extent to which professional sociologists engage with different methods. It is anticipated that the minority of sociologists included in the study will use quantitative approaches in their own work. It is hoped that by investigating the research practices of professional sociologists and their views of the discipline, the study will investigate some of the mechanisms leading to sociology undergraduate students' resistance toward learning quantitative methods. This may have implications for pedagogic interventions designed to engage students with quantitative methods teaching and learning and reduce their anxiety toward using quantitative concepts independently.

3. History of British Sociology

To understand how British sociology has arrived at the current state and condition described above, and specifically, what led British sociology away from quantitative methods, it is necessary to go back in time to contextualise the current 'crisis' of number work in the discipline. Brewer (2007) noted that while critics complain that sociologists are preoccupied

with the history of their discipline, investigating the development of sociology can highlight how debates among the discipline founders remain relevant and important to contemporary issues.

The history described below is organised around the key disciplines which have influenced the development of contemporary British sociology. Examples will be given to show that sociology in Britain has always been strongly oriented *away from* using quantitative methods, despite calls throughout the discipline's history for a more scientifically orientated study of the social world. The work of Renwick (2011; 2012) is particularly insightful and will be relied on heavily in the following account.

3.1 The British Association for the Advancement of Sciences (BAAS)

The British Association for the Advancement of Sciences (BAAS) was created in 1831 with the aim of bringing together 'Gentlemen of Science' (Renwick, 2012: Chapter One). Quickly increasing calls were made for a section of the BAAS dedicated to the statistical study of society and social policy. Just two years after it was originally founded, the BAAS introduced Section F (statistics and economic science), which was concerned with the application of science to understanding and exploring social and political phenomena (Platt, 2003: Chapter Two). Renwick (2012: Chapter One) described how political economy was central to social sciences in the early 1800s and therefore this was the main concern of Section F of the BAAS.

Toward the end of the 1860s, controversy over the scientific tradition and foundation of political economy arose and there was pressure for a new discipline which could explain social issues. Section F of the BAAS faced a number of attacks from different commentators for being unscientific. Despite criticism it remained open, largely because it often attracted large crowds and public attention which provided a secure and continuous revenue for the BAAS (Renwick, 2011; 2012: Chapter One).

However, by 1876 many of the 'Gentlemen of Science' belonging to the BAAS were exasperated at the unscientific nature and quality of the work produced by Section F and called for a committee to review proceedings and decide the ultimate future of the Section (Renwick, 2011). In 1878, following claims that the papers produced by Section F were unsuitable for the BAAS, and not in keeping with the highly scientific nature of the association, the president of the Section, J.K. Ingram, stated the necessity for "Sociology to replace political economy as the guiding hand in British social science" (Renwick, 2012: 19). While the discipline was not yet clearly defined with regard to either substantive issues or methods, Ingram believed that sociology had the potential to use the scientific method to

highlight and remedy social, political and economic concerns. Many were inspired by Ingram's address and, as will be demonstrated, set out to develop and define sociology as an academic discipline.

To understand the inspiration behind some of the early commentators' views on the form and function that sociology in Britain should adopt, it is also necessary to briefly reflect on and outline the work of some key early social theorists, including academics from outside of the UK.

3.2 Early Social Theorists

As well as being an exceptional mathematician, Belgium born Adolphe Quetelet studied sculpture, exhibited paintings, published poetry and co-authored operas (Goldman, 1983; Eknoyan, 2008; Renwick, 2012: Chapter One). In 1823, Quetelet received government funding to travel to the French observatory in Paris to study astronomy (Ball, 2002; Eknoyan, 2008). Here he met and learnt from Pierre Laplace and Siméon Poisson. In particular, he was introduced to the study of averages, rates and distributions. Quetelet was eager to demonstrate the application of his learning to social phenomena and to develop his programme of 'social physics'. Social physics utilised the concept of normal distribution to demonstrate the regularities in moral and social issues (Goldthorpe, 2016: 9-10). Eknoyan (2008) explained that, for this reason, Quetelet is often considered a founder of contemporary social sciences. Alongside colleagues at Cambridge University, Quetelet was instrumental in the development of Section F of the BAAS in 1833. Shortly after he also played a role in the founding of the Statistical Society of London (predecessor of the Royal Statistical Society).

In the 1830s Auguste Comte coined the term 'sociology' to describe the practice of examining society (Rumney, 1945: Chapter Nineteen). The emphasis of his work was on understanding the formation and development of society, as opposed to how sociological insights could change or improve the workings of society. Comte proposed a hierarchy of sciences that decreased in generality, but increased in complexity with sociology occupying the apex of the hierarchy. Each level of the hierarchy presupposes the laws of the sciences at lower levels. As the most superior science, sociology was said to presuppose the laws of mathematics and astronomy, physics, chemistry and biology. It was argued that sociology should employ similar methods to the other sciences below it in the hierarchy. However, the complexity and problems with generalising in sociology meant that Comte and others

acknowledged that experimentation in the traditional laboratory sense was not feasible, and that the discipline would need to advance some methodological procedures of its own.

Later, Herbert Spencer made further developments in the conception of sociology (and anthropology) as an academic discipline in the UK (Rumney, 1945: Chapter Nineteen; Carneiro and Perrin, 2002). Greatly influenced by Darwin and 'natural selection', Spencer borrowed terminology from biology to analyse the progressive development of society. Through the 1850s and 1860s, Spencer began to advocate that evolution was a progressive trend operating on all features of existence (Renwick, 2012: Chapter Three). In 1896, Spencer completed his *Principles of Sociology*, where he argued that social structures and institutions were the result of evolutionary growth (Giddens, 1979: Chapter Seven; Carneiro and Perrin, 2002). In particular, he noted the increasing complexity and organisation of societies as they evolve.

3.3 Influences on the specific development of Sociology in Britain

3.3.1 Politics

With a bequest gift of £20,000 from Derby Fabian, Henry Hutchinson, Sidney and Beatrice Webb founded the London School of Economics (LSE) in 1895 (Platt, 2003: Chapter Two; Levitas, 2010; Fabian Society, no date). The political ideas of the Fabian Society became a major force in the early development of the LSE's School of Social Sciences (Platt, 2003: Chapter Two; Scott, 2014: Chapter Four). It was hoped that research conducted in the School could provide support for the Webbs' political beliefs. The Webbs' espoused gradualist, political social reforms and were particularly concerned with investigating economic conditions.

Beatrice Webb had worked as an apprentice for socialist Charles Booth (Donnelly, 2015a). Booth was related to Beatrice (by marriage) and decided that her voluntary work and interest in social issues made her a suitable candidate to assist in his survey of the working class in London. Despite having no formal education, Beatrice had been encouraged to read widely as a child and philosopher Hebert Spencer; a friend to the family, frequently met with her and guided her on what to read.

Booth advocated that a scientific approach to social research was needed to understand the extent of the poverty problem and to tap into possible causes of poverty (Kent, 1985: Chapter Three). Similarly, many others in this early period conducted surveys to highlight or demonstrate socialist ideas including, Rowntree, Bowley, and Llewellyn-Smith.

Meanwhile, Sidney Webb was a clerk at the Colonial Office (Donnelly, 2015b). Alongside his employment, Sidney was keen to develop his education and undertook classes at the City of London College and Birkbeck Literary and Scientific Institution. In 1883, Sidney was awarded a scholarship at Trinity College, Cambridge in International Law. However, he turned down the opportunity due to his work commitments. Others have speculated that this could explain why Sidney was so keen to invest Hutchinson's money into education. Sidney was elected a member of the Fabian Society in May 1885 and went on to write extensively about the Society.

While the LSE was founded by the Webbs, the development of sociology in the institution, as will be demonstrated later, was primarily funded by James Martin White (Platt, 2003: Chapter Two; Levitas, 2010). In the early days of the LSE, Martin White funded a series of lectures at a cost of £1000 and later provided the funding for the appointment of sociology academics, including the first chair of the discipline.

3.3.2 Biology and Eugenics

Another writer whose work had a great influence on the early development of British sociology was Francis Galton. Galton was a key member of the committee created by the BAAS council to assess the scientific vigour and relevance of its papers and discussions (Renwick, 2012: 33, 34). Galton vehemently opposed the work of political economists, stating that their work lacked sufficient evidence to be relevant to wider society. Instead, Galton wished to promote the principles and approaches of the natural sciences and mathematics. Galton believed that sociology could provide a platform to advance his eugenics project. Inspired by his cousin Charles Darwin, Galton dedicated much of his life to developing this project (Renwick, 2011). Galton believed that by studying heredity he could uncover the laws determining the inheritance of greatness. He advocated that such work had the potential to help the Government develop a nation of the best quality with regard to both physical and mental attributes. Galton believed that this could decrease Government spending in other areas such as education.

Galton was hugely influenced by the work of Quetelet and, in particular, shared Quetelet's enthusiasm of assuming a normal distribution to social phenomena (Eknoyan, 2008). However, whereas Quetelet had used the bell-curve to demonstrate homogeneity and to define the norm, Galton saw the application of the bell-curve as a means to depict heterogeneity and to help detect 'abnormality' in his eugenics programme.

In 1904, Galton's presentation entitled, *Eugenics: its definition, scope and aims* did not impress his colleagues at the Sociological Society. Members of the society failed to be convinced of the appropriateness of eugenics as a way of developing sociology in Britain. By 1907, the Eugenics Education Society had been developed in its own right and eugenics withdrew from the Sociological Society completely (Platt, 2003: Chapter Two).

3.3.3 Biology and Civics

A new and important influence was Patrick Geddes. Geddes was first and foremost a biologist, however he became a key figure in the development of sociology in Britain and also produced influential work in the fields of civics and town planning (Renwick, 2012: Chapter Three). In response to Ingram's plea to develop sociology as an academic discipline, Geddes advocated that while sociology should be seen as uniquely separate from other social and natural sciences it should be grounded in the methods and theories of biology. In particular, Geddes was influenced by Spencer's evolutionary philosophy and therefore believed that sociology, and more broadly the study of society, needed to uphold and adhere to its biological basis.

According to Geddes the failure of political economists could be attributed to their distrust and lack of engagement with statistics (Renwick, 2012: Chapter Three). Geddes called for a new view of the value and role of statistics in social sciences and believed important lessons about collecting and analysing social data could be gained from adopting approaches frequently utilised in biology. At the same time, Geddes was critical of Comte and Spencer for not being able to support their biological style generalisations with first hand observations (Law, 2005). Indeed, as Geddes (1915: 317-318), cited in Law (2005: 5.4) stated; "our quest cannot be attained without participation in the active life of citizenship".

Geddes envisaged sociology becoming the study of civics (Law, 2005; Renwick, 2012: Chapter Three). More than this, for Geddes, sociology had an *emancipatory* role. He played an active role in the renovation of cities, notably Edinburgh, and stressed the importance of detailed surveying before, during and after such work to ensure that the buildings and the environment maintained their historical significance, while the conditions were adequate for local needs, customs and concerns.

While previous efforts by socialists had been made in the 1800s to develop effective survey tools to measure deprivation in UK cities (Rumney, 1945; Kent, 1985, Chapter Three), Geddes was critical of these attempts (Law, 2005). For Geddes, these studies were too large in their

scope and failed to adequately consider the regional, historical and cultural contexts of the cities under investigation.

In 1892, Geddes purchased an observatory, the 'Outlook Tower' in Edinburgh (Renwick, 2012: Chapter Three). The tower provided panoramic views of the city and Geddes established it as the world's first sociological laboratory where he would develop his programme of sociology. However, Geddes failed to persuade his colleagues at the Sociological Society that civics was the trajectory along which sociology should develop. His audience were left somewhat confused by this civics programme.

Victor Branford wanted to follow in the footsteps of his teacher Patrick Geddes, however, his family circumstances prevented him from pursuing a career in academia (Scott and Husbands, 2007). Branford was keen to promote the work of Geddes after being inspired by the latter's zoology and botany lectures as an undergraduate (Platt, 2003: Chapter Two; Scott and Husbands, 2007). At the start of the 1900s, Branford asked a select group of scholars from a variety of different disciplinary backgrounds including science, philosophy and politics for their views on creating a Sociological Society (Rumney, 1945; Platt, 2003: Chapter Two; Scott and Husbands, 2007). The response was overwhelmingly positive. The vision of the Society was to bring together researchers from different disciplines who shared a common interest in scientific social investigation. It was believed that:

> […] the ever-expanding ramifications of social investigation had created the need for a society or association to survey with the eye of science the whole field of human activity and to 'father' the many incipient branches of social studying beginning to emerge (Rumney, 1945: 572).

The Society met on a monthly basis to debate and discuss the future trajectory of the discipline (Renwick, 2011). The events of these public meetings were recorded in the *Sociological Papers*. However, the diverging views and practices of the Sociological Society arguably weakened the foundational base of British sociology. Many were critical of Branford's dedication to promoting the work of Geddes (Scott and Husbands, 2007).

Later, Branford was instrumental in the negotiations for the first chair of sociology at the LSE (Renwick, 2012: Chapter Six). Working with James Martin White, Geddes' wealthy friend, Branford approached the University of London about the possibility of introducing a sociology programme at the LSE. Branford's scheme cost £10,000 and was accepted by the University of London. The money for the scheme was donated by White and initially funded

Edvard Alexander Westermarck as a Professor of sociology and later the appointment of L.T Hobhouse as the first Chair of sociology (Platt, 2003: Chapter Two; Husbands, 2005).

3.3.3 Philosophy

While never demonstrating the same desire to be considered a sociologist or to shape the development of the discipline in the UK as Galton or Geddes had, L.T Hobhouse was in 1907 appointed the first Chair of sociology in the UK at the LSE (Renwick, 2012: Chapter Four). His research interests lay in evolution and the development of human morality. Like Geddes, Hobhouse had been heavily influenced by the work of Spencer, however, Hobhouse was cautious to clearly delineate sociology from biology and was concerned that, too frequently, complex social concerns were being reduced to simple biological facts.

Conflicting accounts exist to explain why Hobhouse was appointed the first Chair of sociology over Galton or Geddes. Scott and Husbands (2007) described how despite Branford's efforts to promote Geddes, he arrived at the interview unprepared. Renwick (2012: Chapter Six) gave a different story of events, stating that Geddes was not considered for the job. Despite always supporting Geddes, Branford believed that the first chair of the discipline needed to be a well-recognised figure who could bring the prestige of science to sociology. For this reason, Branford initially saw Galton as the ideal candidate. However, the poor reception that Galton received at the Sociological Society in 1904 had caused upset and Galton chose to distance himself from the Society to take up opportunities elsewhere to extend his eugenics project. According to Renwick (2012: Chapter Six) this left one potential candidate, L.T Hobhouse. Hobhouse had been an active member of the Society since its inception. Further, he had served on the council of the Society and been on the editorial board of the *Sociological Papers.*

Following the death of Hobhouse in 1929, Morris Ginsberg was appointed the new Martin White Chair at the LSE (Halsey, 2004: Chapter Three). Ginsberg was a great supporter of his predecessor, having been introduced to Hobhouse's philosophical ideas when he moved from Lithuania to the UK to study philosophy at University College London, he continued to advocate Hobhouse's thinking (Rumney, 1945: Chapter Nineteen; Halsey, 2004: Chapter Three). He was, however, not uncritical of Hobhouse's work and was keen to improve upon the way in which it had employed the comparative method (Rumney, 1945: Chapter Nineteen). Ginsberg highlighted the limitations of drawing generalisations using the comparative method with insufficient data. He called for more care to be taken when employing the method. This critique of the comparative method sat alongside Ginsberg's

vision for sociology to be a discipline that formulated and quantitatively analysed laws of social development or growth. At a conference in 1935, Ginsberg presented a paper entitled *The Scope of Sociology* in which he outlined the need for more empirical research in British sociology.

 A.H. Halsey (2004: Chapter Four) himself, of course, to become a pre-eminent sociologist, reflected on the narrow curriculum he and his peers in the first post- World War II sociology cohort received at the LSE. Despite Ginsberg's attempts at refocusing the curriculum, he nevertheless left very little room for new and emerging ideas or concepts in the discipline. Instead, the sociology curriculum at the LSE remained focused on Hobhouse's early interests in evolution and moral philosophy:

> […] the LSE syllabus still rehearsed the ninetieth century […] synthetic or orthogenic evolutionism espoused by Hobhouse […] (Halsey, 2004: 72)

The disjunction, therefore, between Ginsberg's 1930s vision for the future of sociology and the reality of the curriculum the post-World War II cohort received, suggests that the economic and political milieu of Britain post- World War II did not precipitate a stronger emphasis on the empirical, systematic study of the social world. Rumney (1945: 585) concluded:

> The present war, with its profound economic and political changes, may be a turning point in English sociology. But whether it will stimulate it or retard it depends on the social transformations the peace will bring.

Arguably, the slow development and lack of enthusiasm for the potential and status of sociology in Britain during the earlier interwar years could be in part attributed to the negativity shown toward the discipline at Oxford and Cambridge (Bulmer, 1985: Chapter One, Eldridge, 2014: Chapter Fifteen). Unlike their leadership in many other academic disciplines, neither Oxford nor Cambridge were active in the development of sociology (Heath and Edmonson, 1981: 39). The lack of support from these ancient universities meant it was hard for sociology to establish itself as a legitimate discipline within academia (Eldridge, 2014). Sociology was perceived by those in Oxford and Cambridge as 'backwards' and 'unacceptable' (Bulmer, 1985: Chapter One). It was not until 1961 Cambridge introduced sociology to their economics tripos and in 1962 Oxford incorporated it in their philosophy, politics and economics degree (Halsey, 2004: Chapter Five).

3.4 The Great Expansion

Following the Robbins Report in 1963, a university education was no longer to be seen as exclusively for upper-class white males, but more accessible to others (Halsey, 2004: Chapter Five). Subsequently, there was a growth in the total student population. This growth was particularly remarkable in sociology, where the proportion of students undertaking a sociology degree increased at a faster, more dramatic rate than overall student numbers. As well as this growth in the number of students during the 1960s, there was an increase in the number of institutions offering social science degrees (including sociology) (Platt, 2000). Records in the Commonwealth Universities Year Book list only 68 members of academic sociology staff across 12 departments in 1960 (Platt, 2014a: Chapter Eleven). However, Halsey (1985: Chapter Nine) noted that during the following decade a further 28 departments of sociology were created in Britain. By the start of the 1970s there were approximately "1,200 sociologists teaching in Higher Education and another 900 employed as researchers" (Payne, 2014a: 421). Phillip Abrams (1981: 61-2) described the rate of growth of the discipline during this time as "phenomenal", stating that between 1952 and 1966 there was a 450% increase in the number of sociology graduates in Britain.

The dramatic increase in the number of undergraduates pursuing sociology degrees at this time is partly attributed to the fact that students viewed sociology as a discipline through which they could explore current crises which characterised metropolitan Britain, but also wider, global problems such as the Vietnam War (Steinmetz, 2013). The 1960s and 1970s also saw the 'anti-science' trend gain momentum (Williams, 2000a: Chapter Four; Williams, 2003). There were growing concerns that science and technology were leading to moral destruction. Science was associated with the creation of the bomb and weapons, and there were increasing worries over the potential impacts of scientific developments on the environment. Feminists argued that science was a tool that reinforced women's subordinated position in society and further contributed to the degradation of the environment. By the 1960s Thomas Kuhn was challenging widely held assumptions regarding the accumulation of scientific knowledge and progress (Williams, 2000a: Chapter Four). Separately, the emergence of the Strong Programme of sociology of science led to something of an epistemologically relativist turn. Barnes and Bloor (1982:23) suggested that, regardless of the accuracy of a claim, it was important to study the specific contexts in which different knowledge claims gained credibility (Barnes and Bloor, 1982: 23; Williams, 2000a: Chapter Four). This led to a new focus on interpretation, as opposed to explanation, and a shift toward language as opposed to number.

Influenced by the work of Peter Winch, the 'linguistic turn' of the 1970s and 1980s saw the focus of British sociology shift toward the study of language, symbols and images (Alastalo, 2008). Winch advocated studying 'forms of life' through language and this led to the belief that the local linguistics, and language of a given context determined the social rules of that space (Williams, 2003). Language was deemed central to understanding how reality was constructed (Lévi-Strauss, 2004). Therefore, to understand and study the social world the 'linguistic turn' prompted sociologists to listen to the voices of the social actors who created, defined and inhabited social spaces. This was accompanied by increased attention on methods which could liberate both the researched and the researcher (Williams, 2003). Qualitative interviewing and discourse analysis grew in popularity and were seen as progressive and oppositional to the 'conservative' survey approaches to studying the social world that had been a feature of British sociology in earlier decades (Williams, 2003; Lévi-Strauss, 2004).

Theoretical positions such as Marxism and Feminism established a set of distinctly new disciplinary dispositions. They gained so much influence in the new British sociology that the notion that different methodologies were necessary when approaching a problem from different standpoints emerged. This led to wider debates about methodology which reflected binaries such as *structure* versus *agency*, *fact* versus *value,* and *quantitative* versus *qualitative* (Crompton, 2008).

Indeed, analysis of British journal articles has suggested that sociological researchers during this period of expansion were becoming increasingly more likely to use qualitative methods in their work, and to explore *micro*-sociological issues, such as, the family and personal identities (Dunn and Waller, 2000; Platt, 2007; Cohen et al., 2011; MacInnes et al., forthcoming). Payne (2014a: 428, bold in original) noted that in the 1960s:

> Traditional 'political' **topics** like class […] power and material inequality were replaced by an interest in social interaction and process, a change in levels of analysis from the broad brush and extensive to the narrowly focused and intensive.

The social climate of Britain in the 1960s and 1970s led to the conception that British sociology should be less of a science of society and more of a reflexive study of social relationships and systems. Quantitative methods were deemed unfashionable, outdated, crude and not sufficiently sensitive to the complexities of social life.

3.5 Thatcher Government

Under Margaret Thatcher's Conservative Government large cuts halted the growth of British sociology (Posner, 2002; Platt, 2003: Chapter Three; Eldridge, 2011; Holmwood, 2014: Chapter Twenty Six). Government concerns over the discipline's integrity and ability to inform policy led to greater constraints on research funding and a demand for increased transparency. Sir Keith Joseph, Minister of State for Education, was particularly critical of social science research and called for a review of the Social Science Research Council (SSRC). The SSRC (the predecessor of the Economic Social Research Council) had been established as part of the Science and Technology Act of 1965 and was thus, along with five other academic councils, given sums of Government funding to carry out research. However, criticism over the work of the SSRC led Joseph to demand that the council underwent a thorough review. This review was conducted by the eminent biologist Lord Rothschild in 1981. Rothschild's report was critical of the SSRC, but it did conclude that the work of the SSRC was of high importance to society and that closing the council would be an act of "intellectual vandalism" (Eldridge, 2011: 4). Thus, Joseph had to reach a compromise. As opposed to closing the council, it was decided that it should be renamed the Economic and Social Research Council (ESRC). The removal of 'science' from the title expressed the Conservative Government's increasing lack of regard for the social science disciplines and disheartened many of the social science community. There was increasing pressure from Government for sociological research to have policy and learning consequences for *economic* development.

The cuts had important implications on the nature of social science research. Most notably, qualitative techniques grew in popularity as a result of the lower costs involved in such work, being more attractive to funding bodies during those austere times (Payne, 2014a; Chapter Nineteen). For example, earlier technological advances in recording equipment made qualitative interviewing more feasible and cost effective. In addition, British sociology was now, mostly, only able to afford to develop as a humanistic discipline (Payne, 2014b). There was also a growing belief that sociology should become more humanistic in its approach and methods. This acceptance suited universities administrations who increasingly viewed sociology as a 'cheap' discipline which required no lab space, specialised equipment or technicians (Payne, 2014b).

3.6 Post-Thatcher Era

Subsequently, 'social research' began developing separately from sociology, and other social science disciplines, in independent agencies such as the National Centre for Social Research

and the Policy Studies Institute (Williams, 2000a). Under the Thatcher Government there was a prevailing impetus to measure all aspects of social life so as to inform policy and to ensure 'value for money'.

Williams et al. (2008) identified three different types of sociology being practiced in the UK in the twenty-first century. The first is the sociology practiced in academia, which in recent times, as outlined above, has demonstrated a marked preference for using qualitative approaches to explore micro-sociological issues. The second sociology outlined was that taught to students in both schools and higher education institutions. This often reflects the content of the first sociology (that practiced by academics) which hence shapes the view of the discipline that students come to hold. The final type of sociology they described is that practiced in research centres in the public sector and third sector. While the research undertaken there is often sociological, it is not necessarily the case that sociology graduates or more broadly, those with an interest in the social sciences will be employed here.

Similarly, Savage (2009) reminded readers that academic sociologists no longer have a near monopoly over social research and analysis of social data, suggesting that the rise of digital data in recent decades is resulting in academic sociologists becoming a somewhat marginalised group. Academic social research is being dwarfed by large-scale studies conducted by outside agencies and market researchers who have greater access to transactional, demographic and social media data (Savage and Burrows, 2007; Burrows and Savage, 2014). Since the early 2000s, social data have been collected more routinely by the private sector on large sections of the population. In comparison, it is claimed that academic sociologists only have data from select groups of respondents, and are therefore liable of losing their authority to comment on social issues or trends. Savage and Burrows (2007) argued that sociologists in academia need to respond to this 'crisis'. They stated that sociologists need to stop ignoring the proliferation of social data outside of academia and begin to consider how they can effectively engage with it. This would also require sociologists to improve their quantitative research methods skills to enable them to utilise these datasets. Subsequently, Savage and Burrows (2009) urged sociologists to unite and overlook internal methodological tensions in the discipline to ensure that sociological research remains distinct.

However, in response to Savage and Burrows' concerns, it is important to remember that 'big data' may not be able to provide as detailed a description of the social world as those

collected and analysed by academic sociologists (Crompton, 2008). For instance, Crompton (2008: 1221) argued that:

> […] as with any multiple measure deriving from consumption patterns, the measure is likely to be unstable […]

This could mean that the quality of transactional data may not be as finely grained as that collected by sociologists in academia. Moreover, with regard to analysis, Crompton (2008) described how survey data was able to explore the impact of a number of variables in a way that was, potentially, not possible with transactional or social media data.

The post-Thatcher era was also characterised by calls for a 'third paradigm' which could reconcile the differences between positivism and interpretivism (Johnson et al., 2007; Denscombe, 2008). Specifically, mixed methods research was advocated as a way for researchers to compensate for the limitations of using one method or approach only. Normally this would involve researchers using both quantitative and qualitative research methods to answer a research question. It was hoped that by drawing on both quantitative and qualitative approaches the limitations of each would cancel out and lead to a more superior understanding of the research problem.

3.7 Methods Debate

Taking a longer view, it can be seen that despite a number of initiatives taken over decades, historical, social, and political factors have not especially facilitated British sociology engaging with quantitative research methods. Historically, debates surrounding method and how best to study the social world have been linked to even broader tensions over the nature, purpose and role of social science research itself and its relationship with the natural sciences. For instance, the *Methodenstreit* (methods debate) in the late nineteenth century, saw the German Historical School of economics reject the Austrian School's ideas which promoted a deductive approach to social investigations (Bostaph, 1978). Instead, the German School stated that abstraction should be kept to a minimum in social research and that theory should be "empirically descriptive of a given social context" (Bostaph, 1978: 14). Like earlier social scientists in the UK in the 1880s, the Austrian School privileged and tended to adopt methods from the natural sciences which were largely overlooked or dismissed by the Historical School.

Later, in 1959, C.P Snow's controversial Rede lecture at the University of Cambridge sparked further discussions on the nature and character of social science disciplines (Halsey, 2004:

Chapter One; Halsey, 2005: Chapter Two; Kagan, 2009: Chapter One; Eldridge, 2014: Chapter Three). Snow argued that there were two distinct polemical cultures in academia. On the one hand, the natural sciences and on the other, the arts and humanities. The aim of his argument was to emphasise the importance of science and technology education in a rapidly industrialising world and to advocate that to retain the current balance of teaching between the arts and humanities and sciences could be detrimental. Snow believed that the arts and humanities lacked rigour and were of less practical value than science disciplines. Many were critical of Snow's argument, perhaps most vehemently the literary critic F.R Leavis. Leavis's attack on Snow was harsh and personal, questioning Snow's scientific abilities and capacity to seriously consider and comment on global social issues. Subsequently, British sociology could be seen as a third culture. This did not mean that sociology was neither a science nor humanity, but rather that it encompassed features of both disciplines or cultures.

Debates over the disciplinary status and place of sociology have continued. In the 1980s Randall Collins (1984) argued that *all* sciences including physics, involve interpretive leaps and or assumptions. He suggested that sociology can be classified as a natural science discipline maintaining that few, if any, disciplines met the traditional, positivist criteria of a scientific discipline. Therefore, sociology, like natural science disciplines, could fit a new modern vision of science. Collins (1984; 1989) concluded that for sociology to gain respect and status as a scientific discipline, hostilities in the discipline needed to be put aside. He described sociology as fragmented across research areas, methodological approaches and theoretical schools.

Collins is not alone in this. Goldthorpe (2016) called for sociology to become scientific in its endeavour and approach. In the introduction to *Sociology as a Population Science*, Goldthorpe (2016) describes how many countries are now moving toward this desirable model of sociology. However, he highlighted the UK as a notable exception due to its continued resistance toward embracing quantitative methods. Goldthorpe believed that sociology needed to be recognised as a science as opposed to an art, cautioning that a preoccupation with individuals, and an ambivalence toward or rejection of statistics to detect causal processes was resulting in a blurring of disciplinary boundaries particularly between sociology and history. Instead, he advocated that sociology should be concerned with describing, understanding and explaining aggregate level regularities amongst populations. This shift could reduce the present scope of sociology, both with regard to substantive issues and methods, however, Goldthorpe concluded that this was necessary for the future of the discipline.

3.8 Section Summary

The genealogy of British sociology, traced above, suggests that the discipline has never been characterised as particularly quantitative in its approach to studying the social world. While there is some evidence of key thinkers advocating the use of quantitative methods, attempts to make British sociology more quantitative have been thwarted by social, political and economic factors. It has been suggested that the ambivalence toward quantitative research in the development of British sociology could be linked to wider tensions over the nature of the discipline. Throughout the development of sociology there has been controversy surrounding whether sociology is closer to the arts and humanities or more akin to the natural sciences. For this reason, the present research seeks to investigate how professional sociologists view their discipline in relation to the natural sciences and arts and humanities. It also attempts to explore the characteristics which professional sociologists ascribe to British sociology and what they view as the purpose of sociology. This will enable further discussion as to whether the perceived nature and purpose of the discipline determines use of different research methods or approaches.

4. Lessons from Overseas

Calls have been made for greater international discussion on how to engage students and academics alike with quantitative research. For instance, Roberts (2012) discussed similar concerns surrounding a deficit of quantitative research in sociology and social science disciplines in other countries and advocated that in order to address the issue in the social sciences in Britain, we must take time to take stock of effective practice in other countries.

The remainder of Chapter Two will explore existing literature surrounding practices of different national sociologies. It will begin by discussing previous research that has compared sociology in the UK with sociology elsewhere. A recurring theme in these comparisons is the relative absence of quantitative research in British sociology and the poor research methods teaching and, particularly, quantitative methods training that undergraduates receive as part of their sociology degree programme in the UK. American sociology is often depicted as strongly quantitative in its approach to studying the social world (Bechhofer, 1981; Gartrell and Gartrell, 2002; Seale, 2008; MacInnes et al., 2016). Some (Bechhofer, 1981; Seale, 2008) have suggested that the differences in the development of the discipline in America and the UK have led to each national sociology having different goals and utilising different approaches. However, despite the prevailing belief that American sociology is strongly oriented toward researching macro social and political concerns using quantitative methods,

it has been argued that this could be too broad a generalisation and an artificial product of the methods used to highlight the differences between the discipline in the UK and the USA (Platt, 2014b).

For the present study, New Zealand and the Netherlands have been chosen as comparator countries for two reasons. Firstly, it was deemed useful in terms of theory development to maximise variation between case studies and therefore, choose one comparator country where the level of engagement with quantitative methods among sociologists was *lower* than that in the UK (New Zealand) and one comparator country where there was evidence of *high* levels of engagement with quantitative methods (The Netherlands). As will be demonstrated below, while the national sociologies of the UK, New Zealand and the Netherlands all experienced major expansion during the late 1960s and early 1970s, stark differences in current day research practices can be seen. On a pragmatic level, the comparator countries needed to be Anglophone countries to enable data to be collected and analysed easily, affordably and in a timely manner. Furthermore, the intellectual sociological market in the chosen comparator countries needed to be relatively small given the budget and time constraints on the present research. New Zealand has just eight higher education institutions offering sociology degree programmes and the Netherlands has six. Therefore, it was possible to contact all sociology academics working in these higher education institutions with sociology degree programmes and invite them to participate in the study.

A survey conducted in the 1970s demonstrated that sociologists in New Zealand believed that their discipline should be more closely allied to the humanities than the natural sciences (Bottomley, 1974). More recently, content analysis of the national journal *New Zealand Sociology* suggested a preference toward research topics such as social theory and cultural studies often explored using qualitative approaches (Crothers, 2008a). By contrast, sociologists in the Netherlands are often divided into two groups; figurational sociologists and explanatory sociologists (Wesselingh, 1996; de Haan, 2014). The former gives priority to qualitative approaches, while the latter seeks to use quantitative approaches. Higher education institutions in the Netherlands tend to be staffed by either figurational or explanatory sociologists. This physical separation allows the two approaches sufficient space to develop and ensure that the two can co-exist harmoniously.

4.1 Comparative Studies

In 2010, The International Benchmarking Review of UK Sociology aimed to explore how British sociology was viewed from outside the UK. A group of international sociologists were

brought together to comment on the strengths and limitations of British sociology in contrast to the discipline in the rest of the world (HaPS, 2010). There was little consensus among the panel as to what topics could be considered core to the discipline in the UK. Equally, the panel struggled to identify any distinctive methods or methodologies associated with the discipline. Further, while no particular method or methodology could be constituted as distinctively British, it was noted that the spread of approaches adopted in the discipline was uneven with an obvious preference toward using qualitative methods to investigate micro-sociological issues. Interviews with PhD candidates in the discipline further exacerbated the panels' concerns over this uneven level of engagement with quantitative and qualitative techniques (HaPS, 2010). The junior researchers interviewed expressed a widespread ambivalence toward method and methodological issues. Additionally, the same review suggested that the 'anti-quantitative' culture of the discipline could prevent British sociology from having authority over the investigation of social phenomena and could also impact on the discipline's ability to engage with sociology in other parts of the world.

Parker et al. (2008) compared the provision of research methods and quantitative methods teaching across eight countries; USA, Sweden, Norway, Finland, Spain, the Netherlands, Canada and Australia. They used information from higher education institutions' websites to calculate the availability and range of research methods and quantitative methods courses available to social science students in each country. They also investigated whether students had to complete research projects or dissertations as a mandatory part of their degree and if so, the number of projects required. The results of their content analysis revealed that the level of engagement with research and specifically quantitative research was determined more by country than degree programme. For instance, across all social science disciplines investigated, Sweden and the Netherlands consistently required students to complete a higher mean number of research methods and quantitative methods modules, this was regardless of degree programme (business, economics, geography, political science, psychology and sociology). All countries examined reported higher levels of engagement with quantitative methods in the social science disciplines than the UK.

MacInnes et al. (2016) compared the amount of quantitative research methods teaching that students studying different social science degrees received in various countries. Convenience and snowball sampling were used to enable the researchers access to social scientists in different higher education institutions across the globe who were either involved in the design or delivery of quantitative methods training or who had extensive knowledge of the content of these modules. Sixteen universities were included in the sample from a variety of

countries including, USA, the Netherlands, Germany, Norway, Switzerland, Belgium, Australia and New Zealand. Five distinct skills in social science quantitative research methods were compared and discussed across the different degree programmes. These were, 1) research design; 2) data analysis; 3) statistics; 4) using computers, and 5) understanding the relationship between method, theory and substantive issues. MacInnes et al. (2016) concluded that across all of these areas students in the majority of the countries investigated had higher levels of proficiency compared to students in the UK. This difference in skill level was most apparent for data analysis and statistics. In many of the degree programmes offered in the other countries, students were required to engage with a greater variety of multivariate techniques and data reduction techniques than social science students in the UK. They were also more likely to have greater experience integrating methodological discussions with substantive issues.

MacInnes et al. (2016) also highlighted some common features across degree programmes in these other countries which they believed may be leading to the higher levels of quantitative research methods competency among social science students. Firstly, in many of the higher education institutions in the study, undergraduate students were introduced and taught quantitative methods from very early on in their degree programme. As well as this, research methods were often given greater space in the social science curriculum. Intensive continuous assessments, particularly tests, were a common feature that emerged in the interviews from the international higher education institutions studied. Furthermore, the quantitative methods curriculum in these institutions tended to be more progressive and cumulative than courses in the UK. Students were gradually introduced to concepts with increasing complexity, which built on and consolidated their earlier learning. Finally, students were often encouraged to write results from studies in the style of scientific papers as opposed to writing essays. For example, at the University of Mannheim, sociology and politics undergraduate assessment often took the form of a scientific paper and students were expected to produce a great deal of statistical content for these papers. This style of assessment affords students greater insights into the research process and the practice of writing academic papers. The authors concluded that in order to address the quantitative skills deficit in the UK more curriculum space needs to be devoted to both research methods and quantitative methods in social science degree programmes. They called for the strategic recruitment of staff with the expertise necessary to teach quantitative methods confidently and to incorporate examples of quantification in substantive modules.

Although MacInnes et al. (2016) highlighted some interesting examples of best practice in teaching quantitative research methods, it is useful to note that not all the case studies were based on teaching and learning within social science departments. For instance, the example of the quantitative methods training that social science students received at the University of Auckland was based in the department of statistics as opposed to the social science department. Therefore, while this is an example of best practice (for instance, Cardiff University's School of Social Sciences has adopted Auckland's introductory statistics module), as the training was based in the department of statistics, the specific social science examples of quantification that social science students received were still minimal. Moreover, without social scientists teaching their students research methods or embedding examples of quantification in their substantive lectures, there is still a risk that students will not be able to see the value of quantitative research to their own substantive disciplines.

Somewhat in contrast to MacInnes et al. (2016), in the concluding comments of the British Academy Conference *'Quantitative Skills: Learning Lessons from Overseas'*, Adam Roberts (2012) noted that the presentations given throughout the conference suggested a widespread, international resistance among social science students toward learning quantitative methods and speculated that the issue was not restricted to just the UK. There was an acceptance that the struggles faced by the UK to engage academics and students with quantitative methods was an international one. Roberts emphasised the necessity to learn about both positive and negative experiences of engaging students with quantitative methods in other countries to avoid social science departments across the globe making the same mistakes with regard to methods teaching and training.

Indeed, Murtonen and Lehtinen (2003) demonstrated widespread anxiety among social science students in Finland toward learning quantitative methods. The authors described how students still reported negative experiences of being taught and learning research methods and especially quantitative methods despite considerable investment into resources to improve research methods teaching. Based on data from learning diaries of nineteen education students and fifteen sociology students at a Finnish university, these authors identified five reasons for students' resistance toward learning quantitative methods. These ranged from: superficial or rushed teaching; abstract examples used in teaching; unfamiliarity with key concepts and lack of prior knowledge; little understanding of when and why to use particular approaches or techniques, to a general lack of interest or negative attitude among students toward learning. Those students in the study who reported the highest levels of anxiety toward learning quantitative methods were most likely

(58%) to cite superficial teaching as the reason behind their resistance toward quantitative research methods. Meanwhile, those more confident with quantitative methods learning, were most likely (50%) to report their own lack of interest or negative attitude as preventing them from engaging with quantitative research.

4.3 The Case of American Sociology

Previous studies have compared the sociological traditions of the UK and the USA. These two national sociologies are often depicted as having diverging aspirations (Gartrell and Gartrell, 2002), with the discipline in America being more concerned with achieving the same methodological rigour and status usually associated with the natural sciences, and the discipline in the UK being portrayed as more theoretical. Gartrell and Gartrell (2002) traced this difference back to the development of the discipline in each country. They explained that 'scienticism' prevailed in post-World War II America and therefore, to develop and survive, sociology needed to pose social issues as scientific problems that could be solved by experts. Meanwhile in Britain, as described earlier, the resistance toward sociology from Oxford and Cambridge Universities and the growth of the discipline through Hobhouse's teaching at the LSE meant that sociology became more of a social philosophical venture. With the expansion of the discipline in the UK in the 1960s and 1970s, those teaching sociology sought to construct a curriculum using their own intellectual strengths. However, the ad-hoc recruitment of lecturers during this period from different disciplines and at various stages in their careers meant that the quantitative models established in America gained little momentum in the UK.

Similarly, Seale (2008) suggested that, in the 1980s, lack of Government support for British sociology meant that the discipline often sought refuge in cognate disciplines. As a result, a disinterest in empirical work and specifically quantitative methods developed. Conversely, in America, the discipline was afforded greater professional standing and a distinct place for policy-related sociology work developed.

As early as the 1980s, Bechhofer (1981) cautioned that sociology in Britain would not be able to access and build on the output of American sociology if it continued along the same trajectory. He described American sociologists as more concerned with empirical social research and more willing to utilise a range of methods to explore contemporary social issues. In stating that these differences were leading to a "growing communications barrier" between the disciplines, Bechhofer (1981: 501) argued that:

[…] there is little doubt that the average North American sociologists or graduate student can read the material in British journals whereas the majority of American journal writing is closed book to many British academics and most graduate students.

In 2010, as part of the International Benchmarking Review of UK Sociology (HaPs, 2010), the research output of the *British Journal of Sociology* and the *American Sociological Review* for the year 2008 were compared. In the *British Journal of Sociology*, 47% of articles utilised quantitative methods in contrast to 66% of articles published in 2008 in the *American Sociological Review*. Further exploration revealed that for almost 65% of the *British Journal of Sociology* papers which had used quantitative methods, the first author was from overseas.

Moreover, comparing the output of British and American sociology journal articles between 1966 and 1970, and 1986 and 1990, Gartrell and Gartrell (2002) scored articles according to their 7-item scale of 'positivism' (looking at the items studied, it seems possible that the authors conflate positivism and science). Coders recorded whether each of the seven items on the scale were 'present', 'implicit' or 'absent'. The items ranged from: law-like statements; nominal definitions and operational definitions; hypotheses; maths or logic to depict laws; variables associated to each other, and finally to the use of statistics. Analysis revealed that American sociology journal articles scored higher on their scale of 'positivism' than the British articles. For instance, 81% of *Sociology* articles (UK based) published in the latter period studied, contained no statistics, while only 13.8% of *American Sociological Review* articles published in the same time frame contained no statistics.

Looking specifically at the abstracts of medical sociology articles published in mainstream British and American sociology journals, Seale (2008) showed that papers published in America used quantitative methods more frequently. These articles tended to explore the distribution of health inequalities and illness (especially in relation to race) in order to inform policy and practice. Meanwhile, findings from studies published in British journals were often more tentative and linked to social theoretical concepts. Seale (2008: 691) concluded that sociology in America was more relevant to policy than the discipline in the UK citing exemplar titles of journal articles to demonstrate the different focuses adopted in each country, specifically:

At the birth of second century sociology: times of reflexivity, spaces of identity, and nodes of knowledge (UK journal article title).

The gender and race composition of jobs and the male-female, white-black pay gaps (US journal article title).

Seale (2008: 693) argued that the side-lining of sociology by the UK Government in the 1980s led to a scepticism among sociologists that their work would ever be accepted and has increased resistance toward using quantitative methods to provide statistical summaries of social and political concerns, stating that British sociology has become "somewhat introverted".

However, not everyone agrees that sociology in the UK and the USA differ that much. Platt (1996: 13) described how while survey research and experimentation dominated American sociology for some time following World War II, by the 1960s "[…] a significant revival of methodological work on qualitative issues was starting". More recently, Platt (2014b) noted that the output in American sociological books and journal articles are different from each other, with sociologists in the USA being seen as *either* 'book people' or 'journal people'. This means that studies reporting differences between UK and USA sociological research based on findings from content analysis of mainstream national sociology journals alone may overstate differences. Content analysis of sociology books in America may reveal greater levels of qualitative research in the discipline. Therefore, comparing the proportion of total outputs including books and journals, would potentially give a more accurate picture. However, undertaking such a task would involve considerable resources. As well as this, the size difference between the UK and USA 'intellectual markets' may go some way toward explaining the perceived greater levels of engagement with quantitative methods in America when compared to the UK. Speaking anecdotally about his views of sociology as an academic discipline, Becker (1987) described how disciplines in smaller countries are more vulnerable to fads and fashions. For this reason, it seems plausible that there is a sufficient intellectual space for both qualitative and quantitative approaches to exist harmoniously in a large country such as the USA.

Indeed, Parker et al. (2008) described how students in the USA face the same anxieties learning quantitative methods as part of their sociology degree as UK students. Parker et al. (2008) conducted a content analysis of the sociology degree programmes offered at the top 50 universities identified in the 2007 US News and World Report. They found that undergraduate sociologists received very little methodological training and rarely completed a dissertation or research project. Of the courses investigated, 10% contained no research methods modules, while the majority of programmes (76.3%) required students to complete

just one research methods module. Similarly, just over 20% of courses contained no quantitative methods modules. Furthermore, the broad curriculum and choice of modules that American undergraduates were offered meant that often students postponed methods training until the final year of their qualification. While the mathematics teaching that students received as part of their broader undergraduate training could help postgraduate students to learn quantitative methods, over the last two decades there have been calls for pedagogic changes to the research methods curriculum in American universities. The Liberal Learning and the Sociology Major Updated Report published in 2004 (Parker et al., 2008: 84) suggested that research methods training and research experience should be a new priority in undergraduate sociology degree programmes and encouraged institutions to make it compulsory for final year students to complete a dissertation or research project. However, in their international case studies of teaching quantitative methods in the social sciences, MacInnes et al. (2016) include an extract from Professor Richard Breen explaining that students majoring in sociology at Yale University still do not have any mandatory quantitative methods training.

A secondary aim of the present study is to make an original contribution to the discussion surrounding differences between national sociologies and the lessons which can be learned from practices overseas. Therefore, countries (New Zealand and the Netherlands) which have not been previously subjected to the same level of comparison with the UK will be explored. As a result of this, existing literature (especially literature published in English) discussing the national sociologies of the Netherlands and New Zealand is somewhat sparse.

4.4 Sociology in New Zealand

4.4.1 The Health of the Discipline: New Zealand

Although eminent sociologists including Sidney and Beatrice Webb toured New Zealand in the early 1900s, it was not until the 1960s and 1970s that the discipline grew in popularity there and it began to be taught in universities more extensively (Crothers, 2010). Some commentators have suggested that the slow 'take-off' of sociology in New Zealand can be traced back to the slow development of the discipline in the UK and particularly, resistance toward sociology from Oxford and Cambridge universities. The slow development of the discipline has also been attributed to the small size and remoteness of the country (Crothers, 2008a). However, with an increase in internet communications and ease with which academics can travel overseas, sociology in New Zealand now has greater potential to become internationalised.

Charles Crothers (2010) noted that the history of sociology in New Zealand has not been well documented. Unlike other national sociologies, there are no books dedicated to tracing the development of the discipline in New Zealand. This absence is itself evidence of the limited attention given to sociology in New Zealand. The summary of the discipline provided here relies mainly on papers published and/or presented by Crothers himself. Further, most of the literature describing the sociology in New Zealand is almost ten years old.

Records suggest that during the interwar period, a number of students sat exams in sociology as part of the federal New Zealand University's diploma of social science (Timms and Zubrzycki, 1971; McManus, 2006; Crothers, 2010). To complete the diploma, students were required to sit two papers on the 'Outlines of Sociology' (Timms and Zubrzycki, 1971). The diploma was withdrawn in 1936 with these two sociology papers being incorporated into a general bachelor of arts programme. The teaching of sociology for the degree programme was often left to academics in philosophy and education and, because of this, according to Timms and Zubrzycki (1971), the sociology papers were eventually dropped in 1941. It was over a decade later, in 1957, when the School of Social Sciences at Victoria University introduced a first year module in sociology as part of its social work degree programme. By the 1960s, sociology began to be recognised as an independent programme of study. In 1967, Professor Jim Robb was appointed the first ever Chair of sociology in New Zealand at Victoria University College. At the close of that decade, there were approximately fifty sociology academics in New Zealand across five different university departments.

Traditionally, sociology in New Zealand has been coupled with the discipline in Australia. The learned society of the discipline, The Sociological Association of Australia and New Zealand (SAANZ), was initially set up by both countries in the early 1960s (Crothers, 2008a). The New Zealand branch of the association was founded during the expansion of the discipline in the early 1970s. The learned society's journal, *Australian and New Zealand Journal of Sociology* (ANZJS) began to be published in 1965. However, by the end of the 1980s, the two countries had established their own individual learned societies. The Australian Sociological Association (TASA) was founded in Australia and the SAANZ came to represent sociology in New Zealand. Since the separation, the SAANZ has published the journal *New Zealand Sociology.* Between 1986 and 2015, 60 issues of the journal were published (Crothers, 2016). The online publication of the journal has increased its visibility to the rest of the world and has led to increased subscribers overseas.

With regard to the demographic of sociology staff, Crothers (2008a) noted that the number of staff in higher education sociology departments has remained relatively static at around sixty. While the proportions of males and females are fairly equal (51% male and 49% female), female employees are more likely to hold junior positions than their male colleagues. Approximately 10% of academic sociologists in New Zealand are professors and a further 10% are associate professors (equivalent to a reader in the UK). The majority, almost 60%, are senior lecturers, while a further quarter are lecturers (Crothers, 2008b). Furthermore, approximately one third of academic sociologists working in New Zealand are ex-pats. These academics are mainly from the UK, USA and Canada (Crothers, 2010). Like the UK, concerns have been raised surrounding the ageing demographic of academic sociologists in New Zealand (Spoonley, 2005). Spoonley (2005) reported that many departments in New Zealand were dominated by those over the age of 50. He also described the difficulties sociology departments faced recruiting young PhD candidates.

Crothers (2008a) described how the publishing outlets for New Zealand sociology are limited and high-quality publishing outlets very limited. This has led to some wider concerns regarding the cumulative quality of the output of New Zealand sociology. This has become even more prominent with the introduction of the Performance Based Research Fund (PBRF). As part of the PBRF academics must submit their research output and some key performance indicators, leading to an increasing pressure to publish in high-quality international journals as opposed to national journals.

4.4.2 Nature of Sociological Research: New Zealand

Similar to the UK, sociological research in New Zealand tends to favour qualitative research methods with an enduring preference among sociologists there for small-scale qualitative studies (Crothers, 2008a). Content analysis of all issues of the main national sociology journal, *New Zealand Sociology* (approximately 250 articles), showed that popular research areas include, 'History and Social Theory'; 'Cultural Studies'; 'Education', and 'Language and Art'. Since the journal began in 1986, less than 3% of papers published in *New Zealand Sociology* have dealt with the topic of research methods.

Sociological research in New Zealand has received little support from Government (McManus, 2006) and this is particularly apparent when compared with natural science research. In providing a reliable evidence base for Government policy, Spoonley (2005) argued that sociology has been side-lined by other social sciences, notably economics. He advocated a reconsideration and subsequent change in the undergraduate sociology

curriculum to ensure that graduates have the skills to contribute toward Government departments' requests. In particular, Spoonley (2005) suggested that greater training was needed in quantitative methods and quasi-experimental designs to ensure the future of the discipline.

This criticism is not new. In the early 1970s, Timms and Zubrzycki (1971) complained that research methods modules were often separated from substantive sociology modules on undergraduate degree programmes. In being particularly critical of the statistics teaching in research methods modules they wrote:

> Frequently they [research methods modules] consist of little more than a hotch-potch of cook-book statistics, and a few lectures on different techniques of gathering data, and a perfunctory discussion of the logic of functional or causal models […] no guarantee a student will be able to interpret data sociologically, will be able to design a sociological research project, understand a set of sociological hypotheses, or will be able to see the sociological implications of a given form of data-gathering or data analysis. (Timms and Zubrzycki, 1971: 13)

These authors concluded that in order for sociology to attain parity of esteem with disciplines such as physics and foreign languages in New Zealand, sociology undergraduates needed to receive greater mathematics training and have greater opportunities to be involved in designing research and collecting and analysing data.

In the early 1970s, Bottomley (1974) distributed a questionnaire entitled *The Climate of Opinion in Australasian Sociology,* via the SAANZ, to all of its members with the aim of replicating a study conducted with American Sociological Association (ASA) members in the 1960s about their views of sociological research in their country. 283 members responded to the survey in Australasia. Of the SAANZ respondents, 48% agreed that, "The coming generation of sociologists will need much more training in use of higher maths" (Bottomley, 1974: 65). Despite this, there was a consensus that a move toward research methods more akin to those used in the natural sciences, would be detrimental to sociological research. For instance, over 60% disagreed with the statement; "Use of statistical results in analysis are better than those of direct observation" (Bottomley, 1974: 65). Almost half of the respondents (47%) agreed that "a division of labour in which some sociologists specialise in theory, others in empirical research, is necessary for the growth of the discipline" (Bottomley, 1974: 66). Three-quarters (74.3%) agreed that "Sociology should be as much

allied with the humanities as with the sciences" (Bottomley, 1974: 67). Bottomley (1974) concluded that sociology in Australasia was humanistic in its approach. This was especially so when the results from the survey were compared with the findings from the ASA survey, where participants portrayed the discipline as more scientific. The findings of the SAANZ survey suggested a scepticism among members over the legitimacy of the traditional natural science approach to studying the social world and, in particular, concerns over claims that social research can be value-free.

The continued absence of quantitative research in sociology in New Zealand could be partly a result of the small size of the population. New Zealand has a population of approximately 4.5 million spread over a relatively large land mass (Crothers, 2010; UK NARIC, 2015). As a result, issues with small sample sizes may have, previously, forced researchers to use qualitative approaches to study the social world. This concern would have been exacerbated prior to the internet, as researchers would have struggled further to obtain representative samples both quickly and affordably.

4.4.3 Sociology Undergraduate Curriculum: New Zealand

The most recent data, at present, suggest that the number of students studying sociology in New Zealand is declining (Crothers, 2008a). In 1996, there were 185 sociology undergraduates compared to 118 in 2003. However, it has been proposed that this decline in student numbers can be partly attributed to the amalgamation of social science disciplines and the emergence of sub-disciplines such as women's studies. Crothers (2010) described the increasing pressure on higher education institutions to develop courses with 'sexy' names to attract students. Thus, some students will still be reading sociology, but under the guise of a new degree programme (Crothers, 2008a). Further, to retain student numbers, many degree programmes have abandoned compulsory research methods and theory modules (Crothers, 2010).

4.5 Sociology in the Netherlands

4.5.1 The Health of the Discipline: the Netherlands

The second comparator country that will be investigated in Chapter Seven (The Quantitative Experience of the UK, New Zealand and the Netherlands) is the Netherlands. The Quality Assurance Review of Universities in the Netherlands (2014) found that:

Research on sociology in the Netherlands is generally of a very good to excellent level […] Netherlands ranks among the top units internationally. (QANU, 2014: 10-11)

Sociological research in the Netherlands dates back to the sociographic work of S.R Steinmetz in the late nineteenth and early twentieth centuries (de Haan, 2014). Steinmetz's sociographic work aimed to describe social life. The first sociology department in the Netherlands opened in Groningen in 1938 and, following World War II many of Steinmetz's contemporaries began to adopt a more sociological stance to enrich and build upon his work.

Post-World War II, sociological research was deemed essential to re-build Dutch society and to develop the welfare system in the Netherlands (Laeyendecker, 1990; Wesselingh, 1996). As a result, a strong link between sociology and social policy began to emerge. Laeyendecker (1990: 221) stated that following the Second World War:

There was a planning-mood in the Netherlands and this turned out to be a stimulating climate for social science in general, and sociology in particular.

The discipline became increasingly established in higher education institutions, with sociology degree programmes, departments and a chair emerging in all Dutch universities in the 1950s and 1960s (Wesselingh, 1996; de Haan, 2014). The sociology taught in the Netherlands at this time was influenced by research in France and Germany, but was also very strongly influenced by the sociological tradition in the USA. In particular, Dutch sociologists sought to adopt the structural-functionalist approach to social research, together with the survey method. During the 1960s, the number of new sociology undergraduate students each year increased from approximately 45 to around 400.

In the 1970s, the Netherlands saw a great deal of social unrest and a number of student protests against prevailing social hierarchies (Laeyendecker, 1990; de Haan, 2014). The traditional American approach to sociological research was seen as legitimising and reinforcing this social order in academia and as a result, the discipline began to fall from favour. By the middle of the 1970s, student enrolments for sociology degree programmes in the Netherlands were very low.

An economic crisis in the 1980s brought further setbacks to the discipline in the Netherlands (de Haan, 2014) with the following two decades seeing severe budget cuts to higher education. Subsequently, the number of sociology departments in the Netherlands decreased. By the turn of the millennium, very few universities still offered sociology degree

programmes and there were increasing fears over the future of the discipline. Despite this, during the 1990s, there was a growing awareness of the role sociological research could play in informing policy and practice.

Since then, sociology has slowly regained status as academics in the discipline engage in debates over topics such as immigration and integration, poverty and violence, and there has been a growing dialogue between sociologists and Government ministers (de Haan, 2014). A number of individual research institutes now recruit sociologists to critically analyse contemporary social issues.

Sociologists in the Netherlands have worked extensively to improve the quality of methods of data collection and analysis they employ (de Haan, 2014), making considerable investment in the recording and storing of data. de Haan (2014) described how quantitative data is now made available in open databases for other researchers to access and the effort that is being directed toward finding more effective ways to archive qualitative data.

Like the UK, there are some concerns over a potential ageing demographic of sociologists working in Dutch universities. A lack of long-term contracts has meant a high degree of job uncertainty for more junior academics in many higher education institutions (QANU, 2014). Equally, Parker et al. (2008) noted that, relative to its size, the Netherlands has a large number of social science PhD researchers, therefore increasing competition for junior level jobs. This insecurity, combined with the fact that the Netherlands only has six university sociology departments, means that young academics are increasingly looking for better job opportunities overseas.

4.5.2 Nature of Sociological Research: The Netherlands

Two main alternative theoretical approaches were advocated following the recruitment crisis of the discipline in the Netherlands in the 1970s. These were described as *figurational sociology* and *explanatory sociology* (Wesselingh, 1996; de Haan, 2014) and these two approaches to sociological research have continued to develop and become somewhat entrenched in Dutch sociology. The former, figurational sociology, seeks to investigate long-term social processes and draws heavily on the assumptions laid out in the work of Norbert Elias, and tends to favour qualitative data collection and analysis. Meanwhile, explanatory sociologists aim to explain collective phenomena. Quantitative methods and quantitative data analysis is central to the work of explanatory sociologists who aim to build mathematical models to explain social phenomena.

In 1925 the Dutch journal *Mens and Maatsch* (People and Society) was established (Vanderstraeten, 2010). The journal was broad in its scope, but the first issue reflected on recent developments in German sociology. Later in 1953, *Sociologische Gids* (Sociological Compass) became the first journal in the Netherlands which was solely devoted to sociology. The journal was established by a group of graduates from the University of Amsterdam who aimed to use the journal as a vehicle to professionalise the discipline. With the establishment of *Sociologische Gids*, *Mens and Maatsch* increasingly became an outlet for quantitative sociological research and more detailed discussions of methodological considerations in sociological research. Meanwhile, the sociological research published in *Sociologische Gids* was less technical and aimed at non-specialists. In 2004, *Sociologische Gids* stopped being published and a new journal entitled *Sociologie* was created. This journal is more aligned to the figurational sociological tradition (hence more qualitative) at the Amsterdam School of Social Science Research. Nowadays with increasing pressure to make the discipline more international, sociologists in the Netherlands have little motivation to publish in Dutch (de Haan, 2014) bringing concerns over the future of Dutch language journals. de Haan (2014) noted that both *Sociologie* and *Mens and Maatsch* were struggling to exist as a result of declining numbers of manuscripts and decreasing numbers of subscribers.

Reviewing key documents including PhD theses, research programme publications and self-evaluation reports, the Quality Assurance Review of Universities in the Netherlands (2014) described the current research output of Dutch sociology as diverse in terms of method and methodologies, themes and focus. The Review stated that this was a strength that universities and academic sociologists in the Netherlands should work to maintain and safeguard.

4.5.3 Sociology Undergraduate Curriculum: the Netherlands

In the Netherlands, the finance, organisation, management and even curriculum of universities are determined by the Government (Parker et al., 2008). Although legislative changes were enacted in both 1981 and 1993 to decentralise Government control over university curriculum, there has been little change and the Government still has formal control over the content of undergraduate courses taught in universities.

In their international study of quantitative methods teaching, Parker et al. (2008) found that all social science undergraduate degree programmes in Dutch universities required students to partake in more research methods modules, and to complete more individual research projects or dissertations, than most other country in their study (USA, Sweden, Norway,

Finland, Spain, Canada and Australia). For *all* sociology degree programmes in the Netherlands, students studied both research methods and quantitative methods modules. In over 65% of the institutions, students were required to complete three research methods modules, and in 50% of cases students also had to complete three quantitative research methods modules. Approximately one third of undergraduate sociology courses in the Netherlands required students to complete one dissertation or research project and a further third required students to complete two pieces of research during their studies. Parker et al. (2008) noted that the level of research methods and quantitative methods teaching that undergraduate students in the Netherlands received was much greater than that of any of the other countries in their study. Students in the Netherlands were on average required to complete at least two extra research methods or quantitative methods modules than sociology students in the comparator countries.

However, McConnell et al. (2013) described widespread resistance and reluctance among social science students in the Netherlands toward learning research methods. The authors explored criminology students' interest in engaging with research and level of appreciation for social research. In total, 156 criminology students partook in the study, representing approximately 50% of all bachelors and masters criminology students in the Netherlands. This included 43 first-year students; 42 second-year students; 44 third-year students, and 27 master's students. While students' reported level of interest in engaging with research was similar for each cohort, the reported levels of appreciation of social research increased with year group. As the data is not longitudinal, the authors were not able to make any causal links between educational level and appreciation of social research, however they concluded that there could be a possible association between these two variables.

The pre-university education system in the Netherlands sorts students into different streams according to ability and subject preferences (UK NARIC; 2015). While all students regardless of stream are required to study mathematics, they do so to varying levels. Therefore, all students will have some knowledge of statistics and probability *prior* to commencing their university degree programme (MacInnes et al., 2016).

4.6 Section Summary

The national sociologies of the UK, New Zealand and the Netherlands all developed during a similar period, however the literature discussed above suggests that the discipline in each country adopts a different approach to answering social questions. The literature demonstrates that sociologists in New Zealand favour qualitative methods, and are facing a

similar deficit of quantitative research as the UK. Despite efforts of the editors of *New Zealand Sociology* encouraging research on national issues to inform local policy debates, pressures to publish in international outlets has led to the side-lining of such macro sociological research. Sociology in the Netherlands has a strong quantitative tradition (Parker et al., 2008; QANU, 2014). This feature sets the national sociology of the Netherlands apart from the discipline in many other countries (QANU, 2014).

One limitation of the comparative element of this research is that, for pragmatic reasons, only countries where English was a dominant or frequently spoken language could be considered for inclusion. Future research could seek to explore the national sociologies of countries where English is not a dominant language. A further limitation of the comparative element of the study is that the extent to which the definition and scope of sociology is uniform across different countries is unknown. For example, the literature above described sociology in the Netherlands as closely allied to social policy. This may mean that research which Dutch respondents viewed as sociology could in fact be considered the domain of social policy in the UK.

5. Chapter Summary

This chapter has sought to contextualise the research problem described in the introduction. It has described existing studies that have compared the use of quantitative methods and qualitative methods in different mainstream sociology journals. These have highlighted how British sociology is strongly *oriented away* from using quantitative approaches. Furthermore, previous studies have demonstrated that sociology students are often resistant to learning quantitative research methods. Numerous small-scale initiatives have been funded by the ESRC to try to alleviate students' anxieties and help them gain sufficient confidence to utilise quantitative methods independently in their own work. However, these initiatives have had limited success. It is hoped that by offering a national, sustained investment across a number of institutions, the Q-Step programme will provide robust training and the necessary teaching staff to increase students' engagement with quantitative methods. The relative absence of quantification in British sociology is problematic at two levels. Firstly, there are concerns that sociologists are no longer being consulted to comment upon social issues and that the absence of quantitative research in the discipline is alienating British sociology from other social science disciplines and other national sociologies. Secondly, there are concerns about the impacts of the deficit of quantitative methods in the discipline on the training that students receive. Specifically, it is argued that good quantitative skills are important for

graduates entering employment in many sectors, and for ensuring that graduates are better equipped to critically consume statistics in everyday life.

It has been demonstrated in this chapter, that the deficit of quantification is not a new feature of British sociology. Indeed, while some of the literature describes a 'crisis' of quantitative methods in the discipline, others have challenged this by stating that British sociology has in fact never been quantitative (Burgess and Bulmer, 1981; Bulmer, 1985: Chapter One; Payne et al., 2004; Payne, 2014a: Chapter Nineteen; MacInnes et al., forthcoming). When calls were initially made to develop a science of society, key thinkers from philosophy, eugenics and civics all set out to define the scope, aims and approaches of the discipline. While Francis Galton was arguably the most influential and well-known academic in the battle, he failed to convince the Sociological Society that eugenics was an appropriate programme for British sociology to follow. Meanwhile, despite Geddes having the support of friend and benefactor Victor Branford, his civics programme was not suitably developed. The philosopher, L.T Hobhouse eventually became the first chair of British sociology at the LSE. Later, the rise of Marxism and Feminism led to a strong backlash against quantitative approaches to research, and anything using quantitative methods was deemed positivist. Budget cuts under the Thatcher Government meant that British sociology could only afford to develop as a humanistic discipline. With recording equipment becoming more accessible and affordable at this time, this led to a surge in qualitative interviewing. By the 1990s, social research began to take root outside academia in public sector research centres. This has led to some concerns over the future of the academic discipline and its ability to inform policy and practice.

Finally, the chapter described the place of different research methods and approaches in other national sociologies. Previous studies comparing the research methods training that students receive in different countries demonstrates that quantitative methods training in the UK is comparatively weak. It also outlined the sociological traditions of New Zealand and the Netherlands. Content analysis of the mainstream sociology journal in New Zealand suggests that, similar to the UK, there is a predominance of small-scale qualitative sociological studies being conducted (Crothers, 2008a). By contrast, in the Netherlands, there is sufficient intellectual space for two different approaches to sociology to co-exist. The figurational approach favours the use of qualitative methods, while the explanatory approach tends to advocate the use of quantitative methods (de Haan, 2014).

Based on the literature discussed above, the present study seeks to address the following research questions:

R.Q 1: Who conducts quantitative research in British sociology?

R.Q 2: Does British sociology have the necessary methodological expertise and interest to investigate contemporary social issues on both the macro and micro levels?

R.Q 3: Is a resistance toward quantitative research methods and skills in British sociology undermining the discipline's status?

R.Q 4: How does sociology in Britain compare to the discipline in other countries?

R.Q 5: What can be learnt from looking at sociology in other countries?

The research will assess the evidence for a putative deficit of quantitative research in British sociology. Specifically, the research aims to understand whether professional sociologists are equipped with the necessary methodological skills to answer research questions at both the macro and micro levels. Moreover, if there is a resistance toward using quantitative methods, the study seeks to understand whether this is viewed as problematic by professional sociologists, particularly with regard to the discipline's status when compared to other social science disciplines, and in comparison to sociology in other countries. To contextualise the extent of the issue in the UK, the study aims to compare British sociology and sociology in New Zealand and the Netherlands. It is hoped that this study will help identify potential barriers to using quantitative research methods and will subsequently help inform pedagogic innovations designed to engage students with quantitative methods.

The next chapter will describe the methodology and method employed to achieve these aims. This will be followed by four data analysis chapters which will outline the key empirical findings from this study.

Chapter 3 : Surveying Professional Sociologists

"Conducting data analysis is like drinking a fine wine. It is important to swirl and sniff the wine, to unpack the complex bouquet and to appreciate the experience. Gulping the wine doesn't work"

(Wright, 2003: 134)

1. Introduction

This chapter begins by describing the realist approach adopted in the study. Following this, there is a detailed discussion of the online survey used, a critique of the online survey method and a discussion of the attempts to address the potential biases associated with the method.

A survey was deemed the most appropriate method to enable the collection of aggregate level, quantitative data from a large population of sociologists. In particular, the online survey mode was chosen due to the monetary and time constraints of this project. Therefore, an online survey created using Qualtrics online survey software was distributed to professional sociologists in the UK. Its aim was to explore the research practices and views on the nature and purpose of British sociology which professional sociologists held. The survey was distributed in two sweeps to ensure an adequate response rate and to try and achieve representativeness. Initially the British Sociological Association (BSA) distributed the survey via their e-newsletter and social media in October 2015. In July 2016, the survey was emailed directly to sociologists working in higher education institutions in the UK with sociology departments. The final survey sample was 1024.

A shortened version of the survey was distributed to sociologists in the Netherlands and New Zealand. Similar to the UK, New Zealand sociologists are facing increasing calls to engage more with quantitative research to ensure that their work can have impact on policy (Thorns, 2003: See Chapter Two: Literature Review). In contrast, the Netherlands has a strong quantitative tradition in sociology (Parker et al., 2008). The aim of international comparative element of the study was to answer the final two research questions outlined in the previous chapter. The analysis of research practices and views of the discipline in New Zealand and the Netherlands was descriptive and secondary to the analysis of the UK survey data. These

analyses are exploratory and a possible basis for future research. Copies of the UK and international surveys distributed can be found in Appendix 1 and Appendix 2.

Prior to broad circulation and in order to further ensure data quality, the online survey was piloted at two sociology departments in UK universities. The pilot process will be described along with amendments made to the UK survey following the pilot. After this, salient ethical issues associated with the research will be outlined. In particular, there are often concerns among online survey participants regarding data protection and anonymity. The final section of the chapter is concerned with the analysis of the survey data. It will begin by setting up the parameters of the analysis. While the analysis was predominately quantitative, respondents gave a number of illuminating qualitative comments to support their survey responses. These are used in the analysis, however they are used mainly to reinforce the quantitative findings. Comparing the demographic data to auxiliary datasets suggested that the final sample may not have been representative of all sociologists in the UK. The data were analysed using SPSS and a series of univariate, bivariate and multivariate analyses. Details of the analyses and the limitations of the chosen tests are outlined.

2. Methodological Position

2.1 Defining Methodology

The terms 'Method' and 'Methodology' are often used interchangeably and treated as synonymous. However, it is more accurate to use 'Method' to describe the techniques employed to collect and analyse data and 'Methodology' to describe the broader, wider discussions surrounding methods (Williams and May, 1996: 11; Haig, 2014: Chapter One). Methodology describes, critiques and evaluates different methods in relation to the philosophical assumptions held by researchers (Williams and May, 1996: 11).

2.2 A Realist Model of Research

A realist approach to methodology has informed this study. Realism is a philosophical position which goes someway to reconcile the differences between positivism and interpretivism (Sayer, 2000: 2-3; Pawson, 2006: Chapter Two). Crucially, realists believe that there is social reality that has causal implications. Realists often use the term 'mechanisms' to denote the relatively enduring underlying structures which they attempt to describe and explain. They maintain that the social world is an open system, meaning that complex, social, historical and contemporaneous conditions make it impossible to isolate or manipulate these mechanisms. This means that mechanisms may not always give rise to the same outcomes

in different social contexts. Therefore, while realists aim to identify causal mechanisms, they are less concerned with a detailed specification of the regularity or consistency of these and more interested in studying the different social contexts that lead to particular outcomes.

The realist perspective adopted in the present study is that of 'empirical' or 'scientific' realism (Pawson, 2006: Chapter Two; Williams, 2011; Fleetwood, 2014). While critical realists debate over the value of quantitative methods to study the social world, scientific realism argues that the social world can be studied using quantitative techniques. Scientific realists advocate that quantitative approaches provide empirical observations and possible explanations of patterns in aggregate social data.

The emphasis of realist methodology on understanding 'how' and 'for whom' particular outcomes occur, aligns with the aims of this study to explore who does engage with quantitative methods, and to enable some discussion of the how pedagogic interventions can increase sociology students' confidence, learning and independent competence in using quantitative methods.

For this study, the scope has been restricted to investigating the conditions operating to create the putative deficit and disengagement with quantitative methods among professional sociologists. In other words, from a realist perspective, the research identifies and describes possible causal mechanisms, but stops short of testing them. Future research could seek to test the stability of the mechanisms described here.

2.3 Cross-National Comparative Research

The research presented here contains a cross-national comparative element. In Chapter Seven, (The Quantitative Experience of the UK, New Zealand and the Netherlands), the research practices and views of sociologists on the nature and purpose of their discipline in the UK are compared with those from New Zealand and the Netherlands. While all social science research can be described as comparative (de Vaus, 2008: Chapter Fifteen; Ragin, 2014: Chapter One), *comparative studies* explicitly compare and contrast large macro-social units.

As opposed to simply focusing on the particulars of an individual case or attempting to generalise, comparative research seeks to explore the mechanisms which give rise to certain outcomes (Ashton et al., 2000). Therefore, aligning with a realist perspective.

For the current research, the survey mode was employed to gather data from sociologists in each country. de Vaus (2008: Chapter Fifteen) suggested that survey research can allow formal evaluations of the degree to which similarities and differences exist between countries, and therefore can be beneficial in the comparative research context. However, he cautioned readers to be careful with the evaluative claims and conclusions they make from such research, arguing that participants' views, behaviours and characteristics may not necessarily reflect the nation-state.

Furthermore, it can be problematic to define a research topic on a global scale given the different value systems operating in each country. A researcher cannot be certain of the equivalence of data obtained from each country (de Vaus, 2008: Chapter Fifteen). For instance, in this study, it is unclear the extent to which sociology is defined uniformly across the comparator countries. It is possible that research considered sociological in the UK may fall into the realm of *other* applied disciplines such as education or public health in different countries.

3. Refining the Research Questions and Developing Hypotheses

To explore the conditions that may be leading to the widespread disengagement with quantitative methods described in Chapter Two (Literature Review) and to inform and influence research methods pedagogy, this study sought to investigate the views that professional sociologists in the UK held about their discipline. This section describes the operationalisation of the research questions outlined in the previous chapter. It will be noted that broad, informal, *working* hypotheses (Payne and Payne, 2004) are included in each section. These working hypotheses directed the analysis.

R.Q 1: Who conducts quantitative research in British sociology?

In operationalising the first research question it was necessary to devise indicators to measure possible resistance toward quantitative methods. Therefore, the survey had several questions designed to gather data on usage of quantitative methods. It asked participants which methods or approaches they had used and published with in the last year. This enabled the collection of data on the methods used in publications generated in British sociology, but overcame one of the limitations of previous studies, in that these had only included mainstream, British sociology journals (Platt, 2014b). By asking participants about the methods and approaches that they used in the last year, in addition to the methods and approaches that they published with, enabled further exploration of whether there was a

disjunction between methods *used* and *published with*. This also allowed inferences to be drawn on whether there is a publication bias toward certain approaches. The list of methods and approaches was devised by consulting methods textbooks for the discipline. It is important to note that, as Bryman (2006: 102) stated:

> Some of the research methods are perhaps better thought of as methods of data analysis, but they are frequently portrayed as research methods because of their distinctive approaches to sampling or capturing data

Participants were also asked whether they primarily identified as a 'quantitative', 'qualitative', 'mixed methods', or 'non-empirical researcher', and about their use of quantitative and qualitative methods in the last year. This enabled a greater understanding of the extent to which quantitative approaches are used in the discipline. Moreover, by comparing this data with demographic data, inferences could be made as to who does use quantitative methods in the discipline. This led to the following informal working research hypotheses:

- *Sociologists in the UK are **more likely** to identify as **'qualitative researchers'** than either 'mixed methods researchers' or 'quantitative researchers'*
- *Sociologists in the UK are **more likely** to report **using qualitative research methods** as opposed to quantitative research methods in the last year*
- *Sociologists in the UK are **more likely** to report **publishing with qualitative research** methods as opposed to quantitative research methods in the last year*
- *Demographic variables including; **gender; age; seniority; employment function; organisation** employed at, and **BSA membership status** impact on sociologists' engagement with different methods*

R.Q 2: Does British sociology have the necessary methodological expertise and interest to investigate contemporary social issues on both the macro and micro levels?

To explore the second research question, it was important to devise a measure of the social issues investigated by respondents. Participants were asked to report the four most important areas in their own research and the four areas of sociology that they believed were core to the discipline. Previous literature has suggested that since the expansion of the discipline in the 1960s and 1970s, there has been a shift in the focus of sociological investigations from the macro social level to the micro social level (Payne, 2014b). This has been accompanied by a rejection of quantitative research in favour for qualitative techniques

which are deemed as more suitable at gathering data on individuals' experiences, thoughts and feelings. Therefore, the first working hypothesis designed to assist in answering this research question was:

- *Sociologists in the UK are **more likely** to research social issues at the **micro level** as opposed to the macro level*

Participants also indicated whether they believed definitions of British sociology and adjectives used to describe the discipline were *very good descriptors* or *very poor descriptors* of the discipline. Based on the review of the literature in the previous chapter, the following additional working hypotheses were created:

- *Sociologists are **more likely** to endorse definitions of the discipline that stress the importance of studying at the **micro social level** as opposed to the macro level*
- *Sociologists are **more likely** to endorse definitions and adjectives to describe the discipline, that are **'anti' science***

Moreover, previous studies have found that:

[…] a relationship between an 'anti' science view [of sociology] and 'anti' numeric view or aptitude toward quantitative methods would seem a likely one (Williams et al., 2008: 1010).

Therefore, the present study replicated survey questions used by Williams et al. (2008) and Williams et al. (2015) to explore whether participants viewed sociology as closer to the arts and humanities or the natural sciences according to a number of different dimensions. Measures were developed on *subject content*, *status*, *public utility*, *methodology* and *analytical tools* to enable a more in depth understanding of how participants perceived the discipline. Therefore, a further working hypothesis for this research was created:

- *Sociologists in the UK are **more likely** to view their discipline as **humanistic** in its approach and endeavours*

R.Q 3: Is a resistance toward quantitative research methods and skills in British sociology undermining the discipline's status?

In operationalising the third research question, survey questions were needed to measure the status afforded to British sociology. Literature has suggested that with the increased routine collection of administrative data, sociologists are losing their jurisdiction over researching social issues. A series of questions were designed to assess the status of

sociological research and its impacts on policy and practice. These explored the following broad hypotheses:

- *Sociologists in the UK believe their discipline is in **decline***
- *Sociologists in the UK believe that **other disciplines** are now researching areas previously seen as the **domain of sociology***
- *Sociologists in the UK believe that findings from their research are **not seriously considered by Government***

R.Q 4: How does sociology in Britain compare to the discipline in other countries?
R.Q 5: What can be learnt from looking at sociology in other countries?

To investigate the final two research questions, a shorter version of the survey distributed to the UK participants was also distributed to academic sociologists in New Zealand and the Netherlands. It was not possible to replicate the full UK survey in the comparator countries due to the time and monetary constraints on the research and the more limited knowledge of the discipline in each country (See Chapter 7: The Quantitative Experience of the UK, New Zealand and the Netherlands). Evidence suggests that engagement with quantitative methods is comparably weaker in New Zealand compared to the UK, whereas, engagement with quantitative methods is comparably stronger in the Netherlands compared to the UK. It was hoped that by exploring sociology in these countries, comparisons could be made to inform interventions designed to reverse the quantitative deficit in the discipline in the UK. The following working hypotheses were created to help answer these research questions:

- *Sociologists in **New Zealand** are **less likely** to classify themselves as **'quantitative researchers'** compared to sociologists in the UK*
- *Sociologists in the **Netherlands** are **more likely** to classify themselves as **'quantitative researchers'** compared to sociologists in the UK*
- *Sociologists in **New Zealand** are more likely to see their discipline as **humanistic** in its approach and endeavour*
- *Sociologists in the **Netherlands** are more likely to see their discipline as **scientific** in its approach and endeavour*

4. The Online Survey Method

With the rise in internet usage, there has been an increased reliance on the online survey mode (Couper, 2008: 1; Callegaro et al., 2015: 6). Online surveys allow researchers to access much larger populations and respondents in hard-to-reach areas (Couper, 2000).

Subsequently, costs involved are reduced as researchers do not need to travel to conduct face-to-face surveys, nor incur the printing and postage costs associated with postal surveys (Callegaro et al., 2015: 18). A further advantage of online survey mode is that responses are usually received more quickly than in other survey modes (Couper, 2000; Callegaro et al., 2015: 20).

Some argue that the online survey mode can improve the quality of the data collected. For example, respondents can complete online surveys at their own pace, at a time that is convenient for them, hence improving the reliability and validity of responses (Couper, 2000; May, 2011: 104; Callegaro et al., 2015: 23). Equally, features such as skip logic or branching, which can be embedded in online surveys to divert respondents away from questions that are not applicable to them, can reduce the number of errors made by respondents, compared to postal surveys where this is not possible (Couper, 2008: 29; Callegaro et al., 2015: 23). A further feature that online survey software can allow, is the ability to randomise question order or response categories (Couper, 2008: 29; Callegaro at al., 2015: 92). This can be a useful technique to overcome the potential impact of primacy effects (See section 6 'Ensuring Data Quality' in this chapter).

On the other hand, the potential value and utility of the online survey mode has been challenged. Studies have shown that the response rates to online surveys are much lower than traditional survey modes (Callegaro et al., 2015: 131-133). Dividing internet users into two groups to enable comparisons to be made between the online and telephone survey modes, Fricker et al. (2005) showed that even when a higher incentive was offered for completing a survey online, the telephone survey mode obtained a higher response rate. The authors reported a response rate of 51.6% for the online survey compared to a response rate of 97.5% for the telephone survey.

The online survey mode can also have a negative impact on the quality of the data collected. Callegaro et al., (2015: 24) described how the ability to multitask while completing an online survey may lead respondents to using a satisficing approach when completing the survey as opposed to an optimal approach (See section 6 'Ensuring Data Quality'). There are also major concerns surrounding the representativeness of the online survey samples (Couper, 2000; May, 2011: 100; Callegaro et al., 2015: 131-133). Even in recent times, technical issues such as slow modem speeds and unreliable internet connections have been suggested as reasons to avoid the online survey mode (Couper, 2000).

However, with the general rise in online access and usage, and more specifically, the increase in the number of online surveys distributed, it is argued that the problems of sample representativeness and the threat of technical issues are becoming less of a concern. For the current investigation, given that the majority of the sample were academics in higher education institutions, it can be assumed that they had adequate internet access and an acceptable level of competency to navigate and complete the survey. Indeed, Menachemi (2011) explained that academic audiences are ideal populations to engage with online research as they frequently check their university email accounts and are unlikely to have junk messages going to these account, therefore increasing the likelihood of them seeing and responding to the survey invitation.

5. The Structure of the Survey

The UK survey consisted of five sections;

- What is Sociology?
- Impacts of Sociological Research
- Two Cultures
- British Sociology in an International Context
- You and Your Research

A copy of the UK survey can be found in Appendix 1 and a copy of the international survey in Appendix 2. Below is a short discussion on each section of the survey.

5.1 What is Sociology?

The first section of the survey was concerned with exploring what the participants classified as sociological research. Respondents were asked to state which areas of sociology they believed to be central to their discipline. Using statements published on professional association websites (for instance, the BSA, International Sociological Association and European Sociological Association) about what sociology is, and extracts from pieces written by sociologists on the nature of the discipline, a list of words that have been used to describe the discipline and the skills and attributes of good sociologists were presented. Participants were asked to indicate whether they thought these definitions of sociology were 'very good' or 'very poor' descriptors of the discipline. These data were collected to enable an understanding of how sociologists perceived the nature of their discipline and to allow inferences about how they believed the social world could and should be investigated.

5.2 Impacts of Sociological Research

This section of the survey looked specifically at whether respondents believed that sociological research could impact on policy and practice and aimed to determine the degree to which this was a priority in the discipline. Relatedly, questions explored the possible necessity of a chief social science advisor to the UK Government and the responsibility of researchers to disseminate their work to different groups.

To assess how practitioners viewed the future direction of sociology, respondents were also asked about their level of agreement toward a number of statements about the perceived 'decline' of the discipline.

5.3 Two Cultures

The third section of the survey explored whether practitioners viewed sociology as closer to the natural sciences or to the arts and humanities. This was to enable an evaluation of how distinct sociology was viewed from other disciplines. Secondly, these questions were used to make further inferences about respondents' attitudes toward quantitative methods.

For this section, respondents were presented with sematic differential scales with the arts and humanities on one end of the scale and the natural sciences at the other. Using construct-specific scales like these can mean that responses are less susceptible to acquiescence response bias (Callegaro et al., 2015: 74; See section 6 'Ensuring Data Quality'). Oppenheim (1992) also recommended using these scales when trying to tap into ideas that are tricky for respondents (and arguably researchers) to verbalise, as the scales visually reflect respondents' attitudes.

5.4 British Sociology in an International Context

The survey further contained a number of questions designed to evaluate how practitioners viewed the status of British sociology compared to sociological research conducted in other countries. It was hoped that the open-text responses to these questions would reveal what features participants believed the discipline was lacking in Britain and provide a list of countries that were deemed as producing 'world-leading' sociological research. It was important to keep this survey question open-ended to avoid closing down or influencing participants' responses.

5.5 You and Your Research

The final section of the survey was concerned with gathering demographic data from respondents as well as some information on their research; the areas which best characterised their work, and the methods that they used in their work. The demographic data collected included gender; age; level of seniority; organisation type, and academic employment function. These data were used to explore whether respondents' views on the nature and character of sociology varied according to demographic, research interests or preference for particular methods. It also enabled a discussion of the topic areas that were most frequently investigated in the discipline and the methods being used the most.

However, the collection of such detailed demographic data could have jeopardised the anonymity of participants, particularly if they worked in a small academic department or researched a niche area. For this reason, demographic data was recoded into broader response categories, and, before the dataset is made available to the BSA and the UK Data Archive, it will be completely anonymised.

Previous literature suggests that questions which could be deemed as intrusive to participants' privacy including gender (or institution- see Section 7 'Pilot Study'), are left to the end of a survey (Gorard, 2001: 89; Ary et al., 2013; 426). Separately, it has been suggested that interesting, thought-provoking questions should be presented before factual questions (Czaja and Blair, 1995: 83; Dillman, 2007) as this may entice respondents to participate and also means that the cognitive burden of answering the survey decreases with completion, hopefully reducing drop-out rates. As a result of appearing at the end of the survey, the demographic questions in the survey received the lowest number of responses. This should be considered when the main findings from the analysis are discussed later. Efforts were made to impute missing data. For instance, while not necessarily responding to the question regarding the name of the organisation that they worked in, participants often named their institution in qualitative comments given as part of their response to an earlier question. Information such as this was used to increase the response rate to demographic questions.

6. Ensuring Data Quality

Reliability refers to the consistency of responses (Czaja and Blair, 1995: 94; Fowler, 1995: 147; Oppenheim, 1992: 144; May, 2011: 97). This means consistency across both time, and across questions developed, to measure the same underlying construct (Groves et al., 2009: 282). To increase the reliability of a survey, it is suggested that multiple questions designed

to measure the same construct are used (Oppenheim, 1992: 147; May, 2011: 97). Oppenheim (1992: 147) explained that asking the same question in a slightly different way in a survey increases the reliability of the survey because:

> […] any vagaries of question wording will probably apply only to particular items and thus any bias may cancel out, whereas the underlying attitude will be common to all the items in a set or scale.

A survey instrument is valid if the conclusions drawn from it are accurate; if the survey has measured what it was designed to measure. To assess the validity of the final data, it is recommended that researchers conduct external checks (Oppenheim, 1992: 144-146; Czaja and Blair, 1995: 94; May, 2011: 97; Groves et al., 2009: 274). When constructs cannot be measured directly, such checks can be difficult to conduct (Fowler and Cosenza, 2008: 137). However, researchers are encouraged to consult existing data and research literature to see if their results are congruent. For instance, respondents' answers to factual questions are sometimes compared to census data. This allows researchers to know whether their sample is representative and therefore, in turn, the data collected are valid (Oppenheim, 1992: 146; Groves et al., 2009: 281).

Respondents often utilise a satisficing approach when completing surveys (Krosnick and Alwin, 1987; Tourangeau et al., 2000: 17), meaning that respondents are using minimal effort to answer questions and subsequently may not fully comprehend a question or recall all the information that they have on a topic. Therefore, the researcher has a responsibility to ensure respondents answer a survey in the most optimal way, because satisficing tendencies can impact on the reliability and validity of results. Callegaro et al. (2015: 102) argued that the lack of interviewer, increased anonymity, and potential of multi-tasking when completing online surveys increases the likelihood of satisficing in the online survey mode. Hence, it is important for the current research to explore the effects of satisficing and how they can be reduced. Two well-documented effects of satisficing are *primacy effects* and the *acquiescence response bias*.

In an effort to reduce the cognitive complexity involved in completing a survey, participants faced with a large number of response categories are likely to select the first adequate answer, which may not always necessarily be the optimal answer (Krosnick and Alwin, 1987; Tourangeau et al., 2000: 250-1; Czaja and Blair, 2005: 41). This is known as a *primacy effect*. Even if respondents do consider all potential response categories, Tourangeau et al. (2000:

251) argued that participants will consider earlier response categories more carefully and will use these categories as reference points when considering later options.

Primacy effects are perhaps most noticeable on 'tick all that apply' format questions. Participants may only tick the first applicable response as opposed to considering all the items in the list. Therefore, an unchecked box can have multiple interpretations (Callegaro et al., 2015: 80). For example, it may indicate a 'not applicable' response, or it may be that the respondent has chosen not to give an answer to that item, or that they are unsure and so have left the box blank to indicate a 'don't know' response. As a result, it is recommended that researchers find an alternative format for asking these questions. Smyth et al. (2006) explored the differences in responses on 'tick all that apply' formatted questions and forced-choice formatted questions. These authors found that respondents took longer to answer forced-choice questions and endorsed more responses compared with the 'tick all that apply' formatted questions.

In the present survey, the question designed to explore which methods participants had used and published with in the last year was formatted in a way so that participants had to select a 'Yes' or 'No' response for each method or approach. This encouraged the respondents to consider all the options on the list before moving on to the next question in the survey. Furthermore, randomisation of response categories was enabled on some questions in the survey. It was hoped that, if respondents' first response produced a cognitive bias when considering their answers for following statements, the fact that each respondent was presented with the list in a different order would cancel out or minimise any bias.

The issue of *acquiescence response bias* refers to respondents' tendency to agree with all Likert statements regardless of the statement (Converse and Presser, 1986: 38; Fowler, 1995: 57; Tourageau et al., 2000: 5). This is another way in which a satisficing approach to completing a survey can manifest itself (Krosnick, 2000; Saris et al., 2010). Alternatively, it is also suggested that respondents may automatically agree with statements so as to ensure that they are perceived in a positive light by the researcher (Tourageau et al., 2000: 5; Saris et al., 2010). Consequently, survey methodologists are very critical of the effectiveness of agree-disagree Likert scale questions designed to assess participants' attitudes (Converse and Presser, 1986: 38, Fowler, 1995: 66). Therefore, it is important, where possible, to use alternative scales so as to encourage participants to engage with the survey questions.

As a result, attitudinal scales in the present survey were changed from 'strongly agree' to 'strongly disagree' scales, to item specific response options to avoid the acquiescence

response bias. Item specific scales are much simpler and less cognitively demanding on respondents and therefore less likely to be affected by the acquiescence bias (Fowler, 1995: 57; Saris et al., 2010). Moreover, item specific responses can improve the reliability and the validity of the survey questions (Saris et al., 2010).

7. Pilot study

The survey was piloted in two sociology departments in UK universities in June 2015. Gatekeepers at each university were contacted in advance and asked to distribute the survey link in the department they worked in. The gatekeepers themselves gave some initial feedback and recommendations to change the survey prior to agreeing to distribute the survey. For example, one gatekeeper expressed a preference for a scrolling page, as opposed to having to click to move on to the next question.

It is advised that researchers either interview respondents or incorporate additional questions in their survey to gain extra feedback about their survey tool during the piloting phase (Oppenheim, 1992: 47; May, 2011: 121; Callegaro et al., 2015: 106). In particular, Callegaro et al., (2015: 109) described a technique called 'online commenting' which can be an effective way to gain further information from respondents about their experiences of completing an online survey. The technique involves inserting an open textbox, either at the side or underneath a question, which invites those piloting the survey to add extra comments. In the present survey, comment boxes were provided at the end of every page of the survey, allowing respondents the opportunity to expand upon their answers or to comment upon the wording or content of the questions. Based on such feedback, researchers are able to make judgements as to whether a survey question needs modification or whether any confusion that arises is due to a participants' idiosyncrasies (May, 2011: 115). It is suggested that if a question is causing an issue for over 20% of the pilot population, then it needs to be revised.

The decision not to pilot at my home institution was made because it was felt that faculty members' knowledge of the research and affiliation with the Q-Step project may influence how they answered the survey. However, prior to contacting other institutions to pilot the survey, the survey was distributed among a few faculty members in my home institution for their comments. May (2011: 106-107) described how such initial fieldwork can be very useful when trying to operationalise concepts or ideas.

Paradata were collected during the pilot stage of the research. Paradata are data collected in addition to respondents' answers to questions which can inform researchers how participants go about answering an online survey (Heerwegh, 2003; Lynn and Nicolaas, 2010; Couper and Singer, 2013; Callegaro et al., 2015: 108). For example, information collected may include the time it takes respondents to answer a question or the number of times they click on a page. Increasingly, researchers are using paradata to enhance their understanding of participants' behaviour in surveys. Callegaro et al. (2015: 108) advocated the advantages of using paradata particularly in the piloting stages of an online survey to assess the ease with which participants can answer questions. Long response times and high numbers of clicks can indicate the levels of difficulty participants have with questions and the need for revision.

In total, there were 9 participants in the pilot study across the two institutions. Due to the small number of participants included in the pretesting phase, no complex statistical analysis could be conducted. However, inferences could be made from the paradata and online comments. While the low response rate was a little worrying, it was however, hoped that as the final survey was to be distributed by the BSA, the name and status of the Association would boost the credibility of the study. Equally, the success of the pilot study was dependent upon the support of the gatekeepers at the two institutions involved. They were asked to distribute the survey and to send out subsequent reminders, but, it is not known whether reminders were sent out, and who exactly in their department the survey was sent to.

Paradata were collected for both those respondents who completed the full survey and those who dropped out part way through. The data revealed that of the participants who dropped out, the majority did so on the first question. This, coupled with another respondent's concerns that the first question was not sufficiently thought-provoking, led to some revision of the order in which the questions appeared:

> "The first question is quite off-putting – I'd change it or scrap it […] I definitely wouldn't start with this (as it will put people off) […]" *(Male, Senior Lecturer, Quantitative Researcher)*

The original first question to the study was open-ended, therefore requiring a greater level of engagement from the respondents. With the above observation in mind, it was decided that a question involving less of a cognitive burden should appear first. Indeed, in their study of factors influencing survey response rates, Crawford et al. (2001) found that respondents

were most likely to drop out of a survey when faced with a series of open-ended questions near the beginning of a survey. These researchers suggested that the increase in both cognition and computer interaction/input that open-ended questions require means that they can be associated with increased drop-out rates. Such questions can be particularly detrimental near the beginning of a survey as the longer times needed to complete these questions can mean that progress appears to be slow. At the same time, it is important to begin a survey with questions that will engage and entice participants (see discussion above: Section 5.5: You and Your Research).

Analysis of the paradata also revealed that the average time taken to complete the whole survey was just under 10 minutes, far less than the approximated time of 20 minutes given in the survey invitation email. While one participant did take just over 20 minutes to complete the survey, they gave a great deal of additional comments. Therefore, the advertised estimated time to complete the survey was lowered to 10 minutes. It was hoped that the lower estimated survey completion time would encourage more people to complete it. In a study designed to explore the impact of the stated approximate time needed to complete an online survey, Crawford et al. (2001) found that those in the group told that the survey would take 8-10 minutes were statistically significantly more likely to respond than those sent an invitation stating that the survey would take 20 minutes. Deutsken et al. (2004) findings supported this idea, with a higher response rate to a shortened version of a survey and also fewer non-substantive answers.

Based on the average overall time to complete the survey, questions that took longer than approximately 20 seconds to answer, would be cause for concern. The questions that took longer than 20 seconds to complete during the pilot were either open-ended questions or multi-item scale questions which would naturally require longer times to complete. For some open-ended questions, participants stated that they would have liked further clarification on how to answer:

> "[…] no examples are given, so I don't know what 'areas of sociology' means […]"
> *(Male, Senior Lecturer, Quantitative Researcher)*

Therefore, examples were added to the questions in the hope that the average response times for these questions would decrease.

A drawback of using the paradata in the Qualtrics software was that every question had to be presented on a different page. This led to the progress bar appearing to be very long and

could have potentially put some off participating. Another pilot survey respondent stated the following:

> "You could make the survey much shorter (in terms of pages) with just a few quick changes.   As it stands, the survey looks like it will be too long […] (though I think this is just because every question is on a new page, rather than because the number of questions is too high)." *(Male, Senior Lecturer, Quantitative Researcher)*

Research suggests that presenting related items on the same page of an online survey can reduce the perceived burden for participants and perhaps as a result, lead to less non-substantive answers ('Don't know' or 'Not applicable' responses). Couper et al. (2001) compared responses to an online survey where half of the participants received a version with each question presented on different screens and the other half received a scrolling design survey with multiple questions per page. These authors found statistical significant efficiency gains for respondents in the scrolling design group who, on average, completed the survey in less time and gave fewer 'don't know' or 'not applicable' answers. Due to the fact that the present survey incorporated skip logic, a complete scrolling design could not be fully adopted. However, it was decided that it would be beneficial to present several questions on one page where possible.

One further comment made was that some questions could be restructured to Likert scale questions with response categories ranging from 'Strongly Agree' to 'Strongly Disagree':

> "I think a Likert-style box would be much shorter and much easier to complete, with less repetition […]" *(No Demographic Data Provided)*

However, as previously discussed, survey methodologists are very critical of the effectiveness of agree-disagree Likert scale questions designed to assess participants' attitudes (Converse and Presser, 1996: 38; Fowler, 1995: 66). Therefore, it was decided to retain construct-specific scales that are reportedly less susceptible to acquiescence response bias (Callegaro et al., 2015: 74). For example, rather than asking participants to indicate their level of agreement with the statement: '*Other academic disciplines are doing research into areas previously seen as the areas of sociological research*', survey participants were asked: '*Do you believe that other academic disciplines are doing research into areas previously seen as the areas of sociological research*', and had to choose one of the following response categories: '*Definitely Not*'; '*Probably Not*'; '*Uncertain*'; '*Probably*', or '*Definitely*'.

An interesting observation was that none of the participants in the pilot study stated the institution that they worked in. This may have been because they believed that this information was already known, as it was explained in the survey invitation that their department had been chosen to pilot the study. Alternatively, they may have believed that disclosing this information may have jeopardised their anonymity. Evidence suggests that concerns regarding anonymity of data are often higher for online surveys than paper surveys (Nulty, 2008). As a result, it was decided that the survey invitation needed to stress further the steps taken to protect participant anonymity and to highlight the contact details for Cardiff University's Ethics Committee.

8. Ethics

Ethical approval for the study was obtained from the School of Social Sciences Research Ethics Committee at Cardiff University. As the BSA sponsored the survey, the research was also bound by the BSA Ethical Code of Practice (this is the professional code of practice for UK sociologists). Prior to the survey being distributed, the BSA trustees had the opportunity to comment on the survey and suggest any changes that they deemed necessary.

Participants were not informed that the research project was linked to the Q-Step Centre at Cardiff University. This was because of concerns that participants' views on the initiatives aimed to promote the use of quantitative methods could impact how they answered the survey and, in particular, some critics have argued that such programmes are 'anti-qualitative'. Therefore, a certain degree of omission was involved. However, this was not deemed harmful toward the participants. Further, if participants were interested in the research, looking at my online academic profile, my affiliation with the Q-Step Centre at Cardiff University would have been immediately apparent.

The main ethical concerns with online surveys are about the security of data collected. Fan and Yan (2010) described how data safety is a concern which may impact on the response rate to online surveys. Measures should be taken to ensure that the data are protected from hacking or being leaked. These measures include having password restricted access to the data and installing firewalls.

The introduction to the survey explained to respondents that participation was voluntary and that they could withdraw from the survey at any time without giving a reason. The participants were also given a contact email address which they could message if they had

any concerns regarding data safety. Finally, before the data are made available to the BSA and the UK Data Archive, the data will be completely anonymised.

A further ethical dilemma with the survey was whether respondents should be informed that paradata were being collected. For the present survey, information was collected on how long participants took to answer each question and how many times they clicked on a page in the *pilot stage only*. Debates in the literature regarding the collection of paradata have begun to emerge (Lynn and Nicolaas, 2010; Couper and Singer, 2013, Callegaro et al., 2015). Couper and Singer (2013) stated that there is a case for respondents being informed about the collection of paradata when such information is to be used to make inferences about respondents. However, the authors found that any reference to the collection of paradata decreased the response rate to an online survey.

Given the possible negative impact that stating explicitly that paradata is being collected in online surveys can have on the response rate, this information was not disclosed to the participants in the pilot stage. As the paradata were not used to make inferences about the respondents, or linked to the responses participants gave but, rather, used to evaluate the effectiveness and quality of the survey questions, it was not deemed to be a salient ethical concern. Arguably, paradata are simply the visual and auditory cues such as looking around the room, pausing, hesitating and so on, which a researcher conducting a face-to-face interview would pick up on and therefore subsequently consider re-wording such questions. Indeed, Lynn and Nicholaas (2010: 1) suggested that paradata can:

> […] be used in place of more resource-intensive techniques, such as behaviour coding and digital recording, for identifying and understanding sources of measurement error

A final consideration is the impact of the interviewer, *or lack of* interviewer on participants' responses. In a discussion on self-administered postal surveys, Oppenheim (1992: 102-103) noted that while an interviewer may not be physically present, respondents' image or perception of the researcher may influence how they answer the survey. Similarly, if an organisation is distributing a survey, the respondents' views of the organisation may impact on how they answer the survey. This is a particularly salient issue for the questions in the present survey that explored participants' level of agreement with statements published by sociological associations, including the BSA.

9. Combining Quantitative and Qualitative Data

While methodologically pluralistic, the study was not designed to be a mixed methods project. Respondents often used the open textboxes available in the survey to give additional comments to explain or reinforce their 'tick-box' responses and it was deemed useful to include these in the analysis of the data. This practical approach to combining quantitative and qualitative data can be seen as an example of the 'complementarism' variant of methodological pluralism described in Chapter Two (See Section 2.5: Methodological Pluralism).

In the study, complementarity is the purpose for including the qualitative comments given by the survey participants (Greene et al., 1989). This means that the qualitative data is included to elaborate, enhance and illustrate the quantitative findings only. In his extended list of rationales for using multiple methods, Bryman (2006: 103) described the rationale adopted in the current investigation as 'illustration' and defined the illustration rationale in the following way:

> [...] use of qualitative data to illustrate quantitative findings [...] putting 'meat on the bones' of 'dry' quantitative findings.

Similarly, in attempting to create research designs based on complementarity, Morgan (1998) argued that researchers need to decide whether the quantitative or qualitative aspect of their study is *principal* to the investigation or a *follow-up* aspect. The current investigation uses what Morgan (1998) described as a 'Qualitative Follow-Up' research design meaning that the qualitative findings are being used to aid and enhance the interpretation of the quantitative data. Therefore, the textual data presented in the data analysis chapters have been selected only to *illuminate* the quantitative findings. Future further research could explore the qualitative comments more extensively and analyse them thematically.

10. Access

The survey was initially distributed via the BSA in October 2015 (Sweep one of data collection). Members of the BSA include university professors/readers, university lecturers, university researchers, graduate students, postgraduate students, undergraduate students, researchers in the public or voluntary sectors and people who have retired from such careers.

In 2014, the BSA had approximately 2,700 members, of whom 61% stated that they were female and 37% male. Data on membership category type for the BSA indicated that the 44%

of members were 'full UK members', meaning that they were not a full-time student, fully retired or unwaged. The second largest membership category was the 'UK concessionary member' group which consists of those who were full-time students, fully retired or unwaged. Less than 10% of members belonged to any one of the final four membership groups; 'Non-UK concessionary member', 'Non-UK member', 'UK school teacher' and 'Non-UK school teacher'.

It should be noted that the distribution of the online survey for this project by the BSA followed the distribution of the BSA's own survey in the summer of 2015 (Roth et al., 2016). The aim of the BSA survey was to explore how the learned society's journal, *Sociology,* was received by both members and non-members. There was therefore some concern that the distribution of two similar surveys in quick succession could lead to survey fatigue and increase non-response (Fan and Yan, 2010).

Initially, 393 participants answered the online survey (Sweep one of data collection: BSA mailing list). 38.4% of the survey participants answered all the questions with the rest completing part of the survey. Respondents from *Russell-group institutions*, *males* and *professors* were *over-represented* in the sample. The response rate for the first sweep of the data collection (BSA mailing list) can only be estimated as the BSA were only able to provide approximate numbers of members for the year 2014. They also promoted the survey via social media, meaning that non-members were able to access the survey. In the first sweep of data collection, 62.8% of participants were BSA members suggesting a response rate of approximately 3.4% from the BSA e-newsletter invitation.

To increase the response rate and to hopefully ensure a more representative sample, in June 2016, individual links to the survey were emailed to sociologists working in higher education institutions in the UK (Sweep two of data collection). A database of sociologists working in UK universities was compiled using information provided on academics on individual universities' websites. To do this, the BSA provided a list of all institutions which offered sociology qualifications then the extensive task of identifying sociologists in each of these institutions began. Individual webpages for academics were read and criteria for inclusion in the database was determined according to whether individuals explicitly stated in their job role or biography that they were a sociologist or stated that they were a member of the BSA. Those who stated that they taught sociology modules were also included in the sample. The final database consisted of 1396 sociologists. The database included email address, gender, seniority and whether the individual was employed at a Russell group or non-Russell group

university. This was a lengthy, onerous task, however, it means that for future research, a significant database is now available.

This second sweep of data collection (database of sociologists), led to a further 631 respondents answering the survey. 48.7% of participants in the second sweep answered all questions, with the rest of the respondents completing part of the survey only. For the second sweep (database of sociologists) the response rate was 45.7%. Response rates for online surveys are approximately 10% lower than response rates to alternative survey modes such as mail surveys and telephone surveys (Fan and Yan, 2008). It should also be taken into consideration that people sent individual links to the survey via email may have already responded to the survey invitation in the BSA e-newsletter. Therefore, the response rate may actually have been higher than 45.7% for the second sweep. Equally, there was also a risk that some people may have answered more than once. As a precaution, the invitation to the survey in the second sweep (database of sociologists) had an additional sentence thanking those who had recently received and completed the survey and stated that there was no need for them to complete the survey again.

11. Demographic composition of final survey sample

11.1 UK

The adequate survey sample was calculated at n=385, assuming a 95% confidence level and 0.5 standard deviations and a margin of error of +/-5%.

Table 3.1 shows the demographic of the participants in each sweep of data collection as well as the final survey sample. Z-scores were calculated to see if the responses from the two sweeps of data collection were statistically significantly different. Analysis revealed that while the demographic of the participants *was* statistically significantly different according to some variables, responses to attitudinal questions and questions on research practices *were not* statistically significantly different between the two sweeps. The proportions of male and female respondents and the proportion of participants who were BSA members did not statistically significantly vary across the two sweeps. However, the first sweep of data collection (BSA mailing list) had a statistically significantly greater proportion of 18-34 year olds compared to the second sweep (database of sociologists). It also contained statistically significantly fewer participants aged 45-54 year old. For the first sweep of data collection (BSA mailing list) there were statistically significantly fewer respondents who were professors, readers and senior lecturers compared to the second sweep (database of sociologists). Meanwhile, postgraduates and those who did not work in universities were

Table 3.1: Key Demographics Variables

	First Sweep (BSA mailing list) (%)	Second Sweep (Database of sociologists) (%)	Final Survey Sample (1st and 2nd Sweep combined) (%)
Gender			
Male	51.3	47.6	51.3
Female	48.7	52.1	48.7
Employment Function			
Research Only	**29.1**	**13.3**	18.2
Research and Teaching	**63.4**	**79.1**	74.5
Teaching Only	3.7	3.6	3.7
Neither Research or Teaching	3.7	4.0	3.7
Seniority			
Professor and Readers	**17.4**	**28.1**	24.9
Senior Lecturers and Equivalent	**21.0**	**25.2**	24.0
Lecturers and Equivalent	20.3	**32.0**	28.4
Postgraduate	**41.3**	**14.7**	22.7
Undergraduate	0.0	0.0	0.0
Age			
18-34	**46.3**	**22.5**	30.2
35-44	19.5	27.9	25.1
45-54	**16.8**	**25.4**	22.7
55+	17.4	24.1	22.0
Organisation Type			
University/College	**91.8**	**97.1**	97.1
Other	**8.2**	**2.9**	2.9
BSA Membership			
Yes	62.8	67.9	66.4
No	37.2	32.1	33.6
BSA Membership Length			
Less than a year	6.5	8.0	7.5
1-5 years	43.0	39.6	40.7
6-10 years	22.6	17.0	18.7
11-20 years	16.1	20.3	19.0
21+ years	11.9	15.1	13.1

Percentages in **bold** indicate statistically significant differences

statistically overrepresented in the first sweep of data collection (BSA mailing list) compared to the second sweep (database of sociologists). Finally, the first sweep of data collection (BSA mailing list) included statistically significantly more respondents who held research only contracts and statistically significantly fewer respondents who held research and teaching employment contracts.

In total, 1024 participants partook in the survey. Of the participants, 44.5% answered all the questions (a sample of 455), with the rest completing part of the survey only. In the final survey sample, there were slightly more male respondents (51.3%) compared to female respondents (48.7%). With regard to seniority, approximately 25% of participants fell into each of the following levels of seniority; 'Professors and Readers'; 'Senior Lecturers and Equivalent' (including Senior Research Fellows); 'Lecturers and Equivalent' (including Research Fellows or Research Associates), and 'Postgraduate Students'. The modal response was 'Lecturers and Equivalent'. No undergraduate students answered the survey. Equally, age was distributed fairly evenly across the age categories. It should be noted that the first permissive age category of '18-34' was included in case undergraduate BSA members wished to participate in the survey. The majority (66.4%) of the sample were BSA members. Of those who were members of the BSA, the majority reported being a member for between 1-5 years.

11.1.1 Representativeness of final sample

To determine whether the final sample was representative, comparisons needed to be made between the final survey sample and auxiliary datasets. Auxiliary data may be census data or other trusted datasets. For this project, it was difficult to find a complete and reliable auxiliary dataset and therefore comparisons have been made between three different sets of data and the final survey sample. The three sets of data were, the BSA approximate data on membership for 2014; the Higher Education Statistics Agency (HESA) data for the academic year 2013/2014, and the database of 1396 sociologists that was created for this study (see description above; Section 10: Access). Each dataset had limitations which are discussed below.

At the time of the research, the BSA did not have detailed information on their members, only approximate percentages for sex and membership category type. The BSA provided approximations of their membership for the year 2014. This approximation was based on fully paid members in January 2014. January was the month that membership renewals took place, however other members may have paid or renewed their subscriptions later in the

year and would not have been included in this approximation. The BSA provided information on the percentages of male and female members and membership type category.

The data requested from HESA included subject coding, sex, seniority, institution type and academic employment function of all academic sociology staff for the year 2013/14. Each year HESA produces a census of staff and students in higher education institutions in the UK. 'Academic staff' are defined by HESA as those employed by higher education providers who hold at least one contract that involves an academic function such as research or teaching, although there are some exceptions, for instance vice-chancellors. It is not mandatory for higher education providers to provide data on academic staff with atypical contracts. For example, those who do not hold permanent contracts or work away from the institution which they are employed by. A further complication when defining the sample is that different providers have different regulations as to who they classify as staff in HESA data reporting. For example, in previous years Cardiff University has included postgraduate tutors in their count of part-time academic staff, while other institutions do not include postgraduates in their counts. Thus, there is some ambiguity over who is classified as an academic member of staff in the sample. Additionally, in order to ensure the anonymity of academics, HESA only share data that is rounded to the nearest multiple of 5.

The database of sociologists included all those who worked in departments offering sociology degree courses. Criteria for inclusion was the explicit label of being a sociologist (e.g. Professor of sociology), stating that their research was sociological (i.e. the sociology of work; medical sociology), teaching on sociology modules or listing membership to the BSA. A limitation of the dataset is that it did not include those who identified as professional sociologists, but did not work in university departments that offer sociology degree courses. This means that sociologists working in other academic departments such as engineering or medicine, or working outside of academia are not included in the database. Furthermore, while some university websites were very detailed, some did not include extensive information about each of its employees. Equally, some institutions included PhD students in their staff lists while others did not.

Z-scores were calculated to see if the demographic of the final survey sample was statistically significantly different to that recorded in the BSA membership data, HESA data and database of sociologists. Table 3.2 lists the demographic data collected from these three sources. Z-scores beyond the critical values (below -1.96 and above 1.96) would suggest that the survey sample and auxiliary data were statistically significantly different.

Table 3.2: Summary of different datasets

	BSA Membership 2014 (%)	HESA 2013/2014 (%)	Database of Sociologists 2016 (%)	Final Survey Sample (%)
Gender				
Male	**37.8**	**41.0**	47.7	51.3
Female	**62.2**	**59.0**	52.3	48.7
Employment Contract				
At Least Some Teaching	N/A	**70.1**	N/A	78.2
Research Only	N/A	**29.9**	N/A	21.8
Russell Group				
Yes	N/A	**29.9**	41.3	44.0
No	N/A	**70.1**	58.7	56.0
Seniority				
Professor	N/A	**9.3**	19.8	18.4
Other Seniority	N/A	**90.7**	80.2	81.6

Percentages in **bold** indicate statistically significant difference to the final survey sample

The proportion of males and females in the final survey sample were statistically significantly different to the proportion of male and female BSA members in 2014. This means that the survey findings cannot be generalised to the whole of the BSA. The BSA membership data for 2014 suggests that female respondents were underrepresented in the final survey sample and males overrepresented.

Statistically significant differences also existed between the HESA data and the final survey sample. There were statistically significant differences between the proportion of males, females, professors and those of other seniority, those working in Russell Group universities and those working in non-Russell Group institutions and those with teaching employment contracts and those with no teaching contracts, between the HESA data and the final survey sample. According to the HESA data, males, professors and those employed at Russell Group institutions were overrepresented in the final survey sample. Those with employment contracts involving teaching were also slightly overrepresented in the final survey sample. This means that the findings from the survey cannot be generalised to all sociologists with

with typical employment contracts working in higher education in the UK.

There were no statistically significant differences between the final survey sample and the database of sociologists that was created for this project. Respondents were compared by gender, seniority and whether or not they worked in a Russell Group institution. This suggests that the survey sample is representative of sociologists working in departments in higher education institutions in the UK that offer sociology courses. However, the limitations of this auxiliary dataset mean that generalisations should be made tentatively.

As an exploratory activity, post-stratification weights were applied to test the extent to which the gender imbalance in the final survey sample compared to the BSA data, made to the analysis. The gender weight made very little difference to the analysis. For instance, the percentage of respondents who classified themselves as 'qualitative researchers' increased from 58.4% to 60.0% while the percentage of those who identified as 'mixed methods researchers' decreased from 32.4% to 30.9% and the percentage of 'quantitative researchers' decreased by less than 0.1%. Therefore, the decision was made to present the unweighted data as this would mean that the final conclusions would be more conservative, despite being more permissive. Furthermore, Platt (2003: Chapter Five), explained that, historically, the BSA has contained a higher proportion of female non-student members than the proportion of female sociologists working in higher education institutions. This means that the final survey sample may be representative of sociologists in academia while not being representative of BSA members. The output for the weighted data can be found in Appendix 3[1].

Further analysis shows that statistically significant differences also existed across all variables when the auxiliary datasets were compared with each other. Thus, while all three include key information on professional sociologists in the UK, the limitations of each dataset mean that the distribution of participants with certain demographics varies statistically significantly *between them*. This suggests that none of the auxiliary datasets provide a comprehensive representation of all sociologists in the UK. Hence the generalisations from the survey sample must be made with caution and with the limitations of the database of 1396 sociologists in mind. Rather than making deterministic generalisations, the generalisations drawn from the research are more moderate (Williams, 2000b; Gobo, 2008: 195). Gobo (2008: 195) described a necessity to adopt new forms of generalisations in social science research to allow research which is drawn from convenience samples, smaller samples or haphazard samples to have greater impact.

1. Two-step cluster analysis cannot be conducted using weighted data in SPSS and therefore this is not included in the output

Inference to the best explanation (IBE) is a type of reasoning which suggests that various different hypotheses may provide explanations for evidence (Harman, 1965; Lipton, 2000; Haig, 2014; Chapter Five). Proponents of IBE argue that researchers reject all alternative hypotheses based on the premise that one given hypothesis is better at explaining the evidence than the others. The 'best' explanation is the hypothesis that has the greatest explanatory virtues including greatest precision, simplicity and plausibility (the principle of Occam's Razor). The inferences drawn in the following analysis and discussion chapters can be seen as inferences to the best explanation. Based on the scope of the study and the existing literature they are the most plausible interpretations.

11.2 New Zealand and the Netherlands

Surveys were initially distributed via contacts in both New Zealand and the Netherlands. Later individual links to the survey were emailed directly to sociology departments in every higher education institution in each country. Similar to the UK, a database of sociologists for each country was newly created within this study. The database for Netherlands included 301 academics working across 6 institutions, while the New Zealand database contained a total of 89 academics working in 8 different institutions. The Sociological Association of Aotearoa (SAA(NZ)) also agreed to distribute the survey among members.

A total of 125 responded to the survey in the Netherlands, while 33 responded to the survey in New Zealand. Both samples were representative with regard to gender, however professors and associate professors were under-represented in the Netherlands sample and PhD researchers over-represented in the New Zealand sample. Table 3.3 compares key demographic data for the three comparator countries.

Table 3.3: Key Demographic Variables for the countries investigated; the UK, the Netherlands and New Zealand

	UK (%)	Netherlands (%)	New Zealand (%)
Gender			
Male	51.3	45.9	42.9
Female	48.7	54.1	57.1
Seniority			
Professor/Reader	24.9	9.1	13.6
Postgraduate	22.7	43.4	77.3
Other	52.4	47.5	9.1
Age			
18-34	30.2	71.2	27.2
35-44	25.1	12.1	4.5
45-54	22.7	8.1	40.9
55+	22.0	8.1	27.2
Employment Contract			
Research Only	18.2	18.2	27.3
Research and Teaching	74.5	73.7	50.0
Teaching Only	3.7	2.0	0.0
Neither Research or Teaching	3.7	6.1	22.7

12. Analysis of survey data

The survey data were collected using Qualtrics online survey software and exported to SPSS. Online survey software removes the necessity for researchers to input and code their data, therefore saving them time and reducing human error in coding (Wright, 2005; Evans and Mathur, 2006).

The distribution of the data was summarised before examining potential associations between variables using bivariate analysis. Recoding of some variables was necessary.

Three multinominal logistic regression models were built to investigate respondents' levels of engagement with quantitative and qualitative research methods. Logistic regression models the probability that the dependent variable takes a certain categorical value (Field, 2013: Chapter Nineteen; MacInnes, 2016: Chapter Ten). Specifically, multinominal logistic regression allows researchers to examine the predictor variables that cause a particular

outcome when the dependent variable has more than two possible responses. One category response of the dependent variable is used as a reference point to compare the odds of the other responses occurring.

To ensure parsimony, only variables which showed a statistically significant association with the dependent variable at the bivariate level were included in the models. Equally, an assumption of logistic regression is that predictor variables do not correlate with each other. For this reason, collinearity diagnostics were obtained for each model. A Variance Inflation Factor (VIF) score greater than 2.5, a tolerance level below 0.4 or a condition index greater than 15 can suggest that variables are correlated with one another and are too similar to include in a model (Sheskin, 2007, pp. 1477; Tarling, 2009, pp.34-35).

The pseudo R^2 Cox and Snell and Nagelkerke are reported as an indication of model fit. MacInnes (2016: Chapter Eleven) cautioned researchers that these pseudo R^2 values are typically lower that R^2 values reported for linear regression and therefore do not necessarily demonstrate model fit or quality.

Goodness-of-fit for multinominal logistic regression is measured using the Hosmer-Lemeshow test. For well-fitting models, the Hosmer-Lemeshow test produces a low chi-square statistic and a p-value greater than 0.05. This indicates that there is not a statistically significant difference between the observed and expected values.

Two-step cluster analysis is used extensively throughout the four analysis chapters. In Chapter Four, cluster analysis is used to assess if survey participants fall into discrete groups based on the methods and approaches that they used or published with in the last year. Chapter Five utilises cluster analysis to investigate whether respondents can be grouped according to their views of the discipline. Finally, in Chapter Seven, cluster analysis is used to explore whether the participants in the Netherlands and New Zealand cluster into discrete groups based on their views of the discipline- specifically, how close participants see sociology to the natural sciences or the arts and humanities.

The aim of cluster analysis is to create relatively homogenous groups of respondents or objects that exhibit large between group variations, but little within-group variation (Kachigan, 1991, Chapter Eight; Michailidou et al., 2009; Everitt et al., 2011: Chapter One). Unlike other clustering procedures, two-step cluster analysis can work with large datasets and both categorical and continuous data simultaneously (SPSS Technical Report, 2001; Bacher et al., 2004; Michailidou et al., 2009; Schiopu, 2010; Everitt et al., 2011: Chapter One).

Furthermore, the researcher does not need to predetermine the optimal number of resultant groups for two-step cluster analysis.

Two-step cluster analysis, as the name suggests, involves two stages (Michailidou et al., 2009). The initial pre-clustering stage reduces the data matrix by scanning each case in turn and deciding whether it fits with the existing clusters or whether a new pre-cluster should be formed. The agglomerative hierarchal clustering approach is then used to group the pre-clusters into the desired number of clusters. This second stage enables different solutions to be explored with different numbers of resulting clusters. As the analysis presented in this study was exploratory rather than confirmatory it was deemed important not to predetermine the maximum number of cluster groups.

To assess the reliability of clusters, Yang (2010: Chapter Nine) recommends running the cluster analysis for subsets of the data and comparing the resultant clusters for the subsets of data to the clusters produced for the whole sample. This is because the order of cases in a file can impact on the final solution. Random samples were produced by SPSS and the cluster analysis replicated on these subsets of the data. The results show that the data clusters in the same way across different sample for all variables investigated apart from *adjectives used to describe the discipline* variables for the *UK sample*. For this reason, the results of this cluster analysis should be treated tentatively as it did not produce reliable groupings.

A silhouette measure of cohesion and separation was included in the output for each cluster analysis performed. This was to determine the quality of the cluster groups produced. The silhouette measure of cohesion and separation compares the distance between within-group means and between group means (SPSS Technical Report, 2001). Good cluster solutions have small differences in mean scores within groups and larger difference in mean scores between groups. Silhouette coefficients can range from -1 to +1, with a score of -1 indicating a very poor cluster quality and a score of +1 indicating very good cluster quality. SPSS deems silhouette coefficients above 0.5 as an indication of 'good' cluster quality. In cluster analysis particular variables will have greater importance in determining cluster group membership than others. Therefore, the output also ordered the variables in order of importance in determining group membership. Researchers are required to make subjective interpretations of the final cluster groupings produced by cluster analysis. The subjective nature of cluster analysis means that different researchers may classify groups which emerge in the data differently (Everitt et al., 2011).

13. Issues of measurement and analysis

13.1 Quantitative versus Qualitative Research

Some criticism could be levelled at the way in which the survey, and the analysis presented in this thesis, depicts quantitative and qualitative research as distinct, and classifies respondents as either 'quantitative', 'qualitative' or 'mixed methods researchers'. As argued by MacInnes et al. (forthcoming: 9), it is important not to forget the extent to which quantitative and qualitative methods are interdependent:

> […] no coherent quantitative procedure can manage without interpretation of meaning, while the most resolutely ethnographic study nevertheless needs systems of classification, and thus quantification.

Indeed, Allwood (2012) suggested that is very hard, if not impossible, to distinguish whether research is qualitative or quantitative. The heterogeneity of quantitative or qualitative research, and the differing characteristics that researchers ascribe to varying extents to quantitative or qualitative research, makes the dichotomy of quantitative and qualitative problematic and hard to disentangle. Allwood (2012) described how research can be identified as qualitative or quantitative in various ways, and argued that it can be unclear in which way a researcher identifies as a quantitative or qualitative researcher. For instance, researchers may classify themselves according to (1) one aspect of the research process, (2) particular methods employed, or (3) differing philosophies underpinning their research.

However, as argued by Goertz and Mahoney (2012: 2, italics in original):

> The two cultures [quantitative and qualitative] are not hermetically sealed from one another but rather are permeable and permit boundary crossing. Nevertheless, they are *relatively* coherent systems of meaning and practice. They feature many readily identifiable values, beliefs, norms, procedures.

Similarly, in defending their approach to classifying the research methods used in mainstream British sociology journals, as either quantitative or qualitative, MacInnes et al. (forthcoming: 9) state the following:

> […] it is empirically fairly straightforward to distinguish research that uses significant amounts of quantitative techniques of analysis from research which relies more heavily on interview or observation in which quantification, the search for

associations between measures or considerations of representativeness is not a core concern.

13.2 P-Values

There is some controversy surrounding the appropriateness of reporting p-values as indicators of statistical significance (Berk and Freedman, 2003; Trafimow and Rice, 2009; Sterne and Smith, 2001; Wild et al., 2011; Colquhoun, 2014; Trafimow, 2014; Trafimow and Marks, 2015; Gorard and Gorard, 2016a; Kuha and Sturgis, 2016; Gorard and Gorard, 2016b). P-values are calculated based on the assumption of complete random samples. This is rarely possible in social science investigations. Despite this, many continue to report p-values for non-random samples of data. Berk and Freedman (2003) argued that participants recruited through non-probability sampling techniques are more likely to exhibit similar characteristics, beliefs and attitudes and that this can result in smaller p-values. They explained that in the social world proximity breeds similarity. Therefore, the p-values from studies employing non-probability sampling techniques often report smaller p-values than those studies which utilised probability sampling techniques. Further, these authors suggested that researchers who use p-values with non-probability samples should discuss '*as if*' cases. This is where researchers describe the findings of their studies *as if* they were from a random sample of a well-defined population. Treating samples 'as if' they have been randomly selected is the only option in scenarios where little evidence already exists and access to a random sample is difficult or impossible. This is another example of inference to the best explanation.

Separately, some authors suggest that this criticism of reporting p-values for non-probability samples is not applicable when researchers employ a quota sampling approach (Cumming, 1990; Brick, 2011). Quota sampling is presented as a cost- and time-effective alternative to probability sampling (Cumming, 1990). Indeed, market researchers frequently employ quota sampling. As a caveat to this, cautions are made that inferential statistics derived from quota samples should not be used to inform important Government actions (Brick, 2011). However, it is suggested that for planning purposes or to sit alongside existing literature, quota samples provide sufficient accuracy (Cumming, 1990). It is argued that by ensuring all groups are proportionally represented in the final sample, researchers can treat their data 'as if' it was a random sample. Brick (2011) explains how, where available, researchers can try to match quota samples to auxiliary datasets. This ensures that the criteria for recruiting participants, or for setting quotas for each stratum within the dataset, are not subject to bias. As a result:

> […] researchers might reasonably use 'inferential statistics' such as P-values, if they can show that their sample is representative of the population of interest (Seddon and Scheepers, 2012: 10)

For the present study, comparisons with the *one* of the auxiliary datasets suggested that the survey sample was representative. In addition, the survey data were weighted to match a further auxiliary dataset (See output in Appendix 3).

Moreover, for studies which are underpowered and drawn from non-probability samples, the standardised threshold of $p \leq 0.05$ may not be adequate. Colquhoun (2014) demonstrated that this approach can lead to false interpretations in at least 30% of cases. Underpowered studies can lead to both type 1 and type 2 errors. Type 1 errors refer to the probability of rejecting the null hypothesis, when in fact it is true, and type 2 errors refer to the probability of accepting the null hypothesis when it is in fact false. Increasing the sample size or precision of measurements can increase the power of a study and therefore reduce the likelihood of type 1 and type 2 errors.

The sample for the study is treated 'as if' it was random sample of sociologists in the UK and therefore, p-values are reported.

14. Chapter Summary

This chapter has discussed the methodological and technical decisions made in the present investigation. The current research used a realist approach to explore the factors leading to resistance toward quantitative methods in British sociology. In order to assess sociologists' attitudes toward quantitative research and more broadly, their views of the discipline, an online survey was distributed. The chapter also discussed other salient ethical issues including the collection of paradata as part of the survey. The proposed analysis of the data was outlined as well as some discussion of the constraints of the analysis.

Chapter Four to Chapter Seven present analysis which seeks to go some way to answer the research questions. Chapter Four explores the extent to which participants reported using different research methods. Chapter Five looks at how respondents viewed the nature and purpose of the discipline. Chapter Six aims to make tentative inferences regarding the future direction of British sociology and finally, Chapter Seven explores the data from the respondents in New Zealand and the Netherlands.

Chapter 4 : The Place of Quantitative Research in British Sociology

"Personally, I see […] a lot of scepticism about quantification, and some unwillingness to engage, with (still!)"

(Mixed Methods Researcher, Male, Professor/Reader, Aged 45-54)

Research question(s) addressed in this chapter:

R.Q 1: *Who conducts quantitative research in British sociology?*

1. Introduction

Debates over the relative absence of quantitative methods in British sociology, have prompted several studies documenting the level of quantification in the mainstream British journals for the discipline. These have found a *lack* of quantitative research being published by the British sociology community (Payne et al., 2004; MacInnes et al., forthcoming). This deficit of number in the discipline has led researchers to speculate about the subject's purpose and future direction (Burgess and Bulmer, 1981; Payne et al., 2004, HEFCE, 2008; HEFCE, 2011), as well as prompting several interventions designed to encourage sociology students to engage more with quantitative methods.

The analysis presented here seeks to add to existing literature on the place and status of quantitative methods in the discipline. As well as presenting quantitative findings from the survey described in the previous chapter, this chapter also draws on some of the qualitative comments provided by survey participants. Many respondents left additional comments to enable them to expand upon their 'tick-box' answers. These comments were often very illuminating and have been used extensively in the analysis.

To begin, univariate analysis highlighting the position of quantitative methods in the discipline will be shown. Following this, findings from a series of multinominal regression models on the levels of engagement with quantitative methods will be presented in an effort to disentangle the variables which may contribute toward the current role and status of quantification in the discipline. The range of methods and techniques that participants reported using, and publishing with, in the last year are also discussed. It is shown that not only are 'quantitative researchers' a minority in the discipline, but that those who did identify as 'quantitative researchers' used a *smaller range* of methods in their work than those who

identified as either 'qualitative' or 'mixed methods researchers'. Building on this, results from a two-step cluster analysis will be explored. The aim of this analysis, is to establish whether respondents fell into discrete groups based on the research methods that they had used and published with in the last year.

Overall, this chapter seeks to investigate claims that there is a deficit of quantitative research in British sociology and to explore who is more likely to engage with quantitative methods. The variables included in the analysis presented in this chapter are listed in the Appendix 4. A copy of the UK survey can also be found in the Appendix 1. At the end of each section of the analysis, a brief summary is provided.

2. The Deficit of Quantitative Methods in British Sociology

Table 4.1 shows the extent to which the survey participants employed quantitative and qualitative methods in their own research in the last year. Participants were asked to indicate whether they had used, 'a lot', 'some', 'very little' or 'none at all'. Just 16.7% of participants stated that they used 'a lot' of quantitative methods in the last year, while the largest proportion of respondents (35.8%) stated that they had 'not' used quantitative methods *at all* in the last year. Conversely, Table 4.1 depicts that almost all the respondents (87%) reported using 'a lot' or 'some' qualitative methods in the last year and less than 15% of the participants reported using 'very little' or 'no' qualitative approaches in the last year. Further analysis, revealed a negative association between use of quantitative and qualitative research methods in the last year.

Table 4.1: Type of research methods used in the last year

	Used Quantitative Methods (%)	Used Qualitative Methods (%)
A Lot	16.7	60.0
Some	25.8	27.0
Very Little	21.7	7.4
Not at All	35.8	5.7
N	461	460

Respondents were also asked if they identified as a 'quantitative', 'qualitative' or 'mixed methods' researcher (Table 4.2).

Table 4.2: Primarily what kind of researcher do you consider yourself?

Researcher Identity	Frequency (%)
Quantitative	9.0
Qualitative	57.7
Mixed Methods	32.0
I do not undertake empirical research	1.3
N	450

The majority (57.7%) of survey participants saw themselves as 'qualitative researchers'. It seems that the dominance of qualitative methods in British sociology is so great that, even when combining 'mixed methods researchers' with those who saw themselves as purely 'quantitative researchers', the percentage of 'qualitative researchers' was still greater (41.0% compared to 57.7%). Participants' resistance toward quantitative methods was also detectable in the comments that they gave in the survey:

> "[...] quantification is the root of all evil in sociology" *(Qualitative Researcher, Female, Lecturer or Equivalent, Aged 35-44)*

> "[...] quantification is very worrying, other disciplines can do that" *(Qualitative Researcher, Female, Postgraduate, Aged 35-44)*

Only a small number (1.3%) of participants reported not conducting empirical research. Conversely, MacInnes et al. (forthcoming) found that approximately 30% of papers published in the *British Journal of Sociology, Sociological Review* and *Sociology* between 2008 and 2010 were non-empirical. Likewise, in their analysis of mainstream British sociology journals, Payne et al. (2004) found that almost 40% of articles published were non-empirical. Similarly, they reported that over 35% of the papers presented at the British Sociological Association (BSA) conference in 2000 were non-empirical. While, these studies of the output of British sociology are now at least seven years old, the evidence may indicate that there is a possible *disjuncture* between the *methodological identity* of sociologists and their *research output*.

2.1 Model Building

Multinominal regression models were built to predict the odds of respondents *using quantitative methods* in the last year; the odds of respondents *using qualitative research* methods in the last year, and the odds of respondents classifying themselves as either a *'quantitative'*, *'qualitative'* or *'mixed methods'* researcher. Multinominal regression is an extension of binary logistic regression (Sheskin, 2007: 1619; Field, 2013: Chapter Nineteen). It enables researchers to predict group membership when more than two groups or

outcomes exist. Table 4.3 shows all the predictor variables considered for inclusion in these models, the parameters of the variables and frequency of responses.

An assumption of multinominal logistic regression is that all predictor variables are strongly related to the dependent variable but, at the same time, predictors cannot be strongly related to each other (Pallant, 2010: Part 4). To ensure that variables meet these conditions, two steps need to be taken. Firstly, bivariate analysis between each predictor and the dependent variable needs to be conducted. Only variables which share a statistically significant relationship can be retained for the model building. Secondly, collinearity diagnostics need to be analysed to ensure that the predictor variables are not strongly related to each other.

Crosstabulation and chi-square statistics were produced to investigate the relationships between the predictor variables and the dependent variables (see Table 4.4). Statistically significant associations are discussed below.

Table 4.3: Variables included in regression models

Variable	Description	Parameters	%
Gender	Whether a respondent is male, female or other	**1=Male**	51.3
		2=Female	48.7
Age	Whether a respondent is aged 18-34, 35-44, 45-54 or 55+	**1=18-34**	30.2
		2=35-44	25.1
		3=45-54	22.7
		4=55+	22.0
Organisation Type	Whether a respondent worked/studied in a college or university or worked outside academia	**1=University/College**	97.1
		2=Other	2.9
Russell Group	Whether a respondent worked/studied in a Russell Group institution or not	**1=Yes**	56.0
		2=No	44.0
Employment Contract	Whether a respondent has a teaching contract or not. Variables recoded to exclude those on neither teaching or research contracts due to the low cell count	**1=Research Only**	18.9
		2=Teaching/Teaching & Research	81.1
Seniority	Whether a respondent is a student (undergraduate or postgraduate), lecturer (or equivalent), senior lecturer (or equivalent) or professor/reader (or equivalent)	**1=Postgraduate**	22.7
		2=Lecturer	28.4
		3=Senior Lecturer	24.0
		4=Professor/Reader	24.9
Qualification outside UK	Whether a respondent has obtained a qualification outside of the UK	**1=Yes**	30.3
		2=No	69.7
BSA Member	Whether a respondent is a member of the British Sociological Association	**1=Yes**	66.4
		2=No	33.6
BSA Membership Length	The length of time a respondent has been a member of the British Sociological Association	**1=Never**	33.6
		2=5 years or less	32.0
		3=6-10 years	12.4
		4=11-20 years	12.6
		5=21+ years	9.4

Table 4.4: Predictor variables and dependent variables (row percentages)

		Last Year Quantitative				Last Year Qualitative				Researcher Identity		
		A lot (%)	Some (%)	A little (%)	None (%)	A lot (%)	Some (%)	A little (%)	None (%)	Quantitative (%)	Qualitative (%)	Mixed methods (%)
Gender	Male	17.3	28.1	23.4	31.2	**53.7**	**30.7**	**8.2**	**7.4**	**10.5**	**52.1**	**37.4**
	Female	15.5	23.7	19.6	41.1	**66.2**	**22.8**	**6.8**	**4.1**	**8.3**	**64.7**	**27.1**
Age	18-34	**23.7**	**18.0**	**23.0**	**35.3**	60.4	26.6	7.2	5.8	**12.2**	**61.2**	**26.6**
	35-44	**14.8**	**25.2**	**22.6**	**37.4**	68.1	20.7	8.6	2.6	**11.8**	**59.1**	**29.1**
	45-54	**15.2**	**30.5**	**15.2**	**39.0**	57.7	28.8	6.7	6.7	**6.9**	**65.3**	**27.7**
	55+	**10.1**	**32.3**	**26.3**	**31.3**	52.5	32.3	7.1	8.1	**4.2**	**45.8**	**50.0**
Organisation Type	University/College	17.0	25.3	21.8	35.9	60.7	27.1	7.1	5.1	9.4	59.1	31.5
	Other	15.4	53.8	15.4	15.4	46.2	23.1	7.7	12.0	9.1	36.4	54.5
Russell Group	Yes	20.9	22.6	20.3	36.2	62.4	23.0	7.9	6.7	13.5	57.9	28.7
	No	14.4	24.5	23.1	38.0	58.5	29.5	7.7	4.3	7.4	59.3	33.3
Employment Contract	Research Only	21.5	25.3	24.1	29.1	65.8	25.3	7.6	1.3	11.5	52.6	35.9
	Teaching/Teaching & Research	16.9	24.9	21.9	36.4	59.5	27.5	7.1	5.9	9.4	60.4	30.2
Seniority	Postgraduate	14.9	24.8	23.8	36.6	69.3	25.7	3.0	2.0	**6.0**	**60.0**	**34.0**
	Lecturer	18.8	21.1	24.2	35.9	63.3	20.3	9.4	7.0	**13.5**	**63.5**	**23.0**
	Senior Lecturer	18.7	24.3	19.6	37.4	52.8	35.2	8.3	3.7	**10.8**	**59.8**	**29.4**
	Professor/Reader	14.5	32.7	19.1	33.6	58.7	26.6	7.3	7.3	**5.6**	**51.9**	**42.6**
Qualification outside UK	Yes	**23.7**	**21.4**	**25.2**	**29.8**	**67.9**	**16.8**	**8.4**	**6.9**	15.0	54.3	30.7
	No	**13.4**	**28.1**	**20.1**	**38.5**	**58.2**	**30.8**	**6.4**	**4.7**	**6.8**	60.7	32.5
BSA Member	Yes	15.5	28.7	18.8	37.0	60.1	28.1	6.9	5.0	9.8	59.0	31.2
	No	19.1	20.4	27.6	32.9	61.2	23.7	7.9	7.2	8.1	56.4	35.6
BSA Membership Length	Never	19.1	20.4	27.6	32.9	61.2	23.7	7.9	7.2	8.1	56.4	35.6
	5 years or less	18.5	24.0	21.2	36.3	59.2	28.6	8.2	4.1	14.0	58.0	28.0
	6-10 years	14.0	26.3	15.8	44.0	73.7	19.3	3.5	3.5	5.4	69.6	25.0
	11-20 years	12.1	32.8	17.2	37.9	56.1	31.6	7.0	5.3	9.1	65.5	25.5
	21+ years	11.9	42.9	16.7	28.6	50.0	33.3	7.1	9.5	2.4	39.0	58.5

Percentages in **bold** indicate statistically significant associations

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2.1.1. Model 1: Last Year Quantitative

Table 4.4 shows that almost a quarter (23.7%) of those aged 18-34 reported using 'a lot' of quantitative methods in the last year compared to 15.2% of those aged 35-44; 14.8% of those aged 45-54, and only 10.1% of those aged 55 and over. However, while being the group with the smallest frequency of participants reportedly using 'a lot' of quantitative research methods in the last year, those aged 55 and over, were also the *least likely* group to report using 'no' quantitative methods in the last year. This could suggest that this group are more likely to engage with a variety of methods or approaches in their work compared to their younger peers. Those aged 55 and over were also more likely than younger respondents to report using 'some' or 'a little' quantitative research in their work in the past twelve months. Moreover, while the modal response for each other age group was using 'no' quantitative methods at all, the modal response for those aged 55 and over was using 'some' quantitative methods in the last year.

Almost one quarter (23.7%) of those who had qualified from other countries reported using 'a lot' of quantitative research methods in the last twelve months, in comparison with 13.4% of those who had not obtained a qualification outside of the UK. However, the modal response for both groups was 'not' using quantitative approaches at all in the last year.

2.1.2. Model 2: Last Year Qualitative

Female participants were more likely to report using 'a lot' of qualitative research methods in the last twelve months compared to male respondents. Over 66% of the females who responded, stated that they had used 'a lot' of qualitative methods in the last year compared to 53.7% of the male participants. Further, female respondents were less likely to report that they had 'not' used qualitative methods at all in the last year in comparison to the male survey participants. Just over 7% of males stated that they had 'not' used qualitative research methods in the last year, while under 5% of females reported that they had 'not' used qualitative research methods in the last twelve months. The modal response for both males and females was 'a lot' of qualitative research methods.

The association between the level of engagement with qualitative methods in the last year and obtaining a qualification outside of the UK was less obvious. 67.9% of those who had obtained a qualification abroad stated that they had used 'a lot' of qualitative methods in the last year in comparison to 58.2% of those who had not obtained a qualification outside of the UK. However, those who had obtained a qualification outside of the UK, were also more likely to report 'not' using qualitative research methods at all in the last year. 6.9% of those that had obtained a qualification overseas had 'not' used qualitative methods at all in

the last year compared to only 4.7% of those in the sample who had not studied abroad. The modal response for both groups was using 'a lot' of qualitative methods in the last year.

2.1.3. Model 3: Researcher Identity

Table 4.4 also shows that the female respondents were more likely to state that they were 'qualitative researchers' compared to the male participants in the sample. 64.7% of females classified themselves as 'qualitative researchers' in comparison to 52.1% of the male participants. Conversely, male respondents were much more likely to identify as 'quantitative researchers' than their female counterparts. Just over 10% of the males in the survey sample stated that they were 'quantitative researchers' in contrast to 8.3% of the females. Of the male participants, 37.4% reported being 'mixed methods researchers' compared to 27.1% of female respondents. The modal response for both males and females was 'qualitative researcher'.

The eldest respondents in the sample were more likely to classify themselves as 'mixed methods researchers'. Half of those aged 55 and over stated that they were 'mixed methods researchers' compared to less than 30% of participants in each of the younger age cohorts. The younger the participants, the more likely they were to identify as 'quantitative researchers'. Of those aged 18-34, 12.2% stated that they were 'quantitative researchers' while less than 5% of those aged 55 and over stated that they were 'quantitative researchers'.

Meanwhile, there was no clear direction to the statistically significant association between seniority and researcher identity, with professors and readers and postgraduates having similar proportions of 'qualitative', 'quantitative' and 'mixed methods' researchers.

Finally, those in the sample who had obtained a qualification abroad were more likely to classify themselves as a 'quantitative researcher'. Of those who had obtained a qualification from overseas, 15% stated that they were a 'quantitative researcher' in comparison to 6.8% of those who had not received a qualification abroad. The modal response for both groups was 'qualitative researcher'.

Collinearity diagnostics between the predictor variables for each of the models (Model 1: Last Year Quantitative; Model 2: Last Year Qualitative, and Model Three: Researcher Identity) were investigated in turn. A Variance Inflation Factor (VIF) score greater than 2.5, a tolerance level below 0.4 or a condition index greater than 15 can suggest that variables are correlated with one another and are too similar to include in the model (Sheskin, 2007: 1477; Tarling, 2009: 34-35).

Collinearity was not an issue for the first two models (Model 1: Last Year Quantitative; Model 2: Last Year Qualitative). However, for Model 3 predicting researcher identity, the collinearity diagnostics revealed a slightly high condition index for the qualification obtained outside of the UK variable (18.22). As this is only slightly larger than the recommendation of 15 and the VIF and tolerance levels were both sound, the variable was retained in the analysis as it was believed to be important in understanding the methodological preferences of sociologists working in the UK. Additionally, it is suggested that collinearity may be an issue if two variables with high condition indexes have a variance proportion above 0.5 (Sheskin, 2007: 1477). This was not the case for the variables included in this analysis.

Table 4.5 shows the variables included in each of the models and the reference categories for each of the variables.

Table 4.5: Reference categories and other categories for each variable in multinominal regression models

Variable	Reference Category	Other Categories
Last Year Quantitative	None	A Little, Some, A Lot
Last Year Qualitative	None	A Little, Some, A Lot
Researcher Identity	Quantitative	Qualitative, Mixed Methods
Gender	Female	Male
Age	55+	18-34, 35-44, 45-54
Seniority	Postgraduate	Lecturer, Senior Lecturer, Professor/Reader
Qualification Outside UK	No	Yes

2.2. Model Summaries

Table 4.6: Exponential regression coefficients for each multinominal regression model

Explanatory Variables	Model 1: Last Year Quantitative			Model 2: Last Year Qualitative			Model 3: Researcher Identity	
	A lot	Some	A Little	A lot	Some	A little	Qualitative	Mixed Methods
	Exp (B)	Exp (B)	Exp (B)	Exp (B)	Exp (B)	Exp (B)	Exp (B)	Exp (B)
Gender								
Male	n/a	n/a	n/a	0.37*	0.53	0.56	0.49*	0.77
Age								
18-34	1.89	0.49*	0.81	n/a	n/a	n/a	0.27	0.12**
35-44	1.11	0.66	0.62				0.44	0.27
45-54	1.04	0.75	0.54				1.02	0.42
Seniority								
Professor/Reader	n/a	n/a	n/a	n/a	n/a	n/a	0.34	0.28
Senior Lecturer							0.24*	0.17**
Lecturer							0.38	0.19**
Qualification outside the UK								
Yes	2.21**	1.04	1.65	0.68	0.33*	0.84	0.34**	0.40*
	R^2=.055 (Cox and Snell), .059 (Nagelkerke). Model x^2(12)=24.36, p<.05 N=429			R^2=.040 (Cox and Snell), .046 (Nagelkerke). Model x^2(6)=16.98, p<.05 N=421			R^2=.097 (Cox and Snell), .117 (Nagelkerke). Model x^2(16)=42.18, p<.05 N=412	
*p<.05, **p<.01, ***p<.001								

2.2.1. Model 1: Last Year Quantitative

The model predicting use of quantitative research methods in the last year (Model 1: Last Year Quantitative) was statistically significant (x^2=24.36, 12df., p<0.05). The pseudo R^2 measures indicated that age and whether a participant had obtained a qualification outside of the UK explained a small amount of the dependence in the dependent variable (Cox and Snell R^2= 5.5% and Nagelkerke R^2=5.9%). The inclusion of the predictor variables statistically significantly improved the model (See Table 4.6).

Accounting for all other variables, obtaining a qualification outside of the UK increased the odds of a participant reporting that they had used 'a lot' of quantitative methods in the last year by 2.21 (odds=2.21, 1df., Wald=6.74). Furthermore, after considering all other variables, being aged 18-34 reduced the odds of a respondent undertaking 'some' quantitative research in the last year by 0.49 (odds=0.49, 1df., Wald=3.88). This means that those aged

18-34 in the survey population were 51% less likely than those aged 55+ to have used 'some' quantitative methods in the last year as opposed to 'none at all'.

2.2.2. Model 2: Last Year Qualitative

For the second model predicting use of qualitative methods in the last year (Model 2: Last Year Qualitative), the reference category was *not using qualitative research methods at all in the last year*. The chi-square statistic demonstrated that the model was statistically significant (x^2=16.98, 6df., p<0.05). The Cox and Snell R^2 and Nagelkerke R^2 indicated that the predictor variables accounted for a very small amount of the variance seen in the dependent variable; 4.0% and 4.6% respectively. The inclusion of the gender and qualification obtained outside of the UK variables statistically significantly improved the fit of the data to the model compared to the empty model. Both variables, statistically significantly, influenced the odds that a researcher had used qualitative methods in the last year.

Table 4.6 also shows that being male led to a statistically significant decrease in the odds of a participant reporting that they used qualitative research methods 'a lot' in the last year compared to 'not' using qualitative research methods at all. Controlling for all other variables, being male reduced the odds of a respondent undertaking 'a lot' of qualitative research in the last year by 0.37 (odds=0.37, 1df., Wald=4.51). Moreover, obtaining a qualification outside of the UK reduced the odds of a respondent undertaking 'some' qualitative research in the last year by 0.33 (odds=0.33, 1df., Wald=4.88) compared to 'not' using qualitative research methods at all.

2.2.3. Model 3: Researcher Identity

The final model (Model Three: Researcher Identity) predicted the odds of a participant identifying as either a 'qualitative' or 'mixed methods researcher' compared to a 'quantitative researcher'. The resultant model was statistically significant (X^2=42.18, 16df., p<0.05) and the pseudo R^2 measures suggested that it accounted for approximately 9.7% (Cox and Snell) to 11.7% (Nagelkerke) of the variance in the dependent variable (Table 4.6).

All other things remaining equal, being male led to a statistically significant decrease in the odds of a respondent stating that they were a 'qualitative researcher' compared to identifying as a 'quantitative researcher' (odds=0.49, 1df., Wald=3.88). Seniority also had a statistically significant effect on the odds of identifying as a 'qualitative researcher' as opposed to a 'quantitative researcher'. After considering all other variables, being a senior lecturer reduced the odds of a participant identifying as a 'qualitative researcher' (odds=0.24, 1df., Wald=4.89). Having a qualification from outside the UK also statistically

significantly decreased the odds of a researcher classifying themselves as a 'qualitative researcher' compared to a 'quantitative researcher' (odds=0.34, 1df., Wald=8.29).

The third model also showed that, being aged 18-34, a senior lecturer; lecturer, or obtaining a qualification from outside the UK, all led to statistically significant decreases in the odds of a participant stating that they were a 'mixed methods researcher' as opposed to a 'quantitative researcher'. Controlling for all other variables, being aged 18-34 reduced the odds of a respondent classifying themselves as a 'mixed methods researcher' by 0.12 (odds=0.12, 1df., Wald=7.34). Furthermore, being a lecturer (odds=0.19, 1df., Wald=6.62) or a senior lecturer (odds=0.17, 1df., Wald=8.17) reduced the odds of a participant identifying as a 'mixed methods researcher' by 0.19 and 0.17 respectively. Obtaining a qualification from overseas, statistically significantly, decreased the odds of respondent identifying as a 'mixed methods researcher' compared to a 'quantitative researcher' (odds=0.4, 1df., Wald=5.26).

Across all three models, the inclusion of the predictor variables, statistically significantly, improved the model fit. Obtaining a qualification from overseas was predictor of; the use of quantitative research methods in the last year; the use of qualitative research methods in the last year, and researcher identity. Studying a qualification abroad statistically significantly *increased* the odds of a respondent stating they had used 'a lot' of quantitative research methods, and statistically significantly *decreased* the odds of a participant reporting that they had used 'a lot' of qualitative research methods in the last year. With regard to researcher identity, those who had obtained a qualification from overseas were statistically significantly *more likely* to self-classify as a 'quantitative researcher' compared to those who had received all their training in the UK. This suggests that training students receive overseas may better equip them to engage with quantitative methods. This reinforces the necessity to consider what lessons can be learnt from looking at practices in sociology research methods pedagogy from abroad (See Chapter Seven: The Quantitative Experience of the UK, New Zealand and the Netherlands).

Furthermore, the gender of respondents statistically significantly influenced the extent to which participants reported using qualitative research methods in the last twelve months and the type of researcher they primarily identified as. Keeping all other things equal, being male statistically significantly *decreased* the odds of using 'a lot' of qualitative methods in the last year and statistically significantly *decreased* the odds of self-classifying as a 'qualitative researcher' compared to a 'quantitative researcher'. This is in line with previous suggestions that females are more likely than their male counterparts to research gender,

women, or to adopt a feminist standpoint and, therefore, may be more inclined to promote the use of qualitative techniques over quantitative ones (Dunn and Waller, 2000).

Meanwhile, age and seniority were also shown to be statistically significant predictors of research identity. The impacts of age and seniority of research practices will be explored further in Chapter Six (Purpose and Future Direction of British Sociology), which is concerned with the future direction of the discipline.

Summary:

The analysis presented so far has found evidence to *support* the putative deficit of number in British sociology. Almost 60% of the survey sample reported using 'very little' or 'no' quantitative research in their work in the past twelve months, while only 13% of respondents stated that they had used 'very little' or 'no' qualitative methods in the past year.

Moreover, it has shown that *age* and *obtaining a qualification from overseas* were both statistically significant predictors of engagement with quantitative methods in the last year. The youngest respondents in the sample were more likely than their older peers to report using 'a lot' of quantitative methods in the last year. Furthermore, approximately one quarter of those who had received a qualification from overseas reported using 'a lot' of quantitative methods in the last year compared to 13.4% of respondents who had not received training outside of the UK.

However, when looking at the multivariate level, it was demonstrated that those aged 55 and over were more than two times as likely to report conducting 'some' quantitative analysis in the last year as opposed to 'none at all', when compared to those aged 18-34 in the survey sample. Meanwhile, obtaining a qualification from overseas statistically significantly increased the odds of respondents reporting that they had used 'a lot' of quantitative methods in the last year.

Gender and whether a participant had *obtained a qualification from overseas* were both found to be statistically significantly associated with reported use of qualitative methods in the last year. Over 65% of females in the sample reported using 'a lot' of qualitative methods in the last year, in comparison to approximately 54% of males. While 67.9% of those who obtained a qualification abroad reported using 'a lot' of qualitative methods in the last year, 58.2% of those that had received all of their training in the UK also reported using 'a lot' of quantitative methods in the last year.

The multinominal logistic regression model designed to predict participants' level of engagement with qualitative methods in the last year (Model 2: Last Year Qualitative) showed that, females in the sample were almost *three times more likely* than males to report using 'a lot' of qualitative methods in the last year compared to 'none at all'. Meanwhile, obtaining a qualification from overseas reduced the odds of respondents using 'some' qualitative research methods in the last year.

The analysis reported above also showed that *gender* was statistically significantly associated with researcher identity. Male respondents were more likely than their female counterparts to report being either 'quantitative' or 'mixed methods researchers'. Moreover, the analysis showed that the *older* researchers and more *senior* researchers were the most likely respondents to identify as 'mixed methods researchers'. 15% of respondents who had *obtained a qualification from overseas* stated that they were a 'quantitative researcher' in contrast to 6.8% who had studied in the UK only.

The final regression model presented in this chapter showed that female respondents were *two times more likely* to identify as 'qualitative researchers' as opposed to 'quantitative researchers' compared to their male counterparts. Furthermore, those who had not obtained a qualification overseas were *three times more likely* than those who had to identify as 'qualitative researchers'. With regard to identifying as 'mixed methods researcher', those aged 55 and over were *more than eight times* more likely to state they were a 'mixed methods researcher' compared to those aged 18-34. As well as this, the model showed statistically significant reductions in the odds of lecturers and senior lecturers identifying as 'mixed methods researchers'.

Thus, the analysis showed that;

- *The **majority** of sociologists identified as **'qualitative researchers'** and reported using **'a lot'** of **qualitative** research methods in the last year*
- ***Gender, age, seniority** and **whether a participant had obtained a qualification from overseas** predicted engagement with quantitative and qualitative research methods*
- ***Females** were **more likely** than males to have used **qualitative** research methods **'a lot'** in the last year*
- ***Females** were **more likely** than males to identify as **'qualitative researchers'***
- *Those aged **18-34** were **less likely** than those aged 55+ to report using **'some'** **quantitative** research methods in the last year compared to using 'none at all'*

- *Those aged **18-34** were **less likely** than those aged 55+ to identify as '**mixed methods researchers'** compared to 'quantitative researchers'*

- ***Senior lecturers** were **less likely** than postgraduates to identify as '**qualitative researchers'** compared to 'quantitative researchers'*

- *Those with a **qualification from overseas** were **more likely** than those who did not have a qualification from overseas to report using '**a lot'** of **quantitative** research methods in the last year*

- *Those with a **qualification from overseas** were **less likely** than those who did not have a qualification from overseas to report using '**some' qualitative** research methods in the last year*

- *Those with **a qualification from overseas** were **less likely** than those who did not have a qualification from overseas to identify as either a '**qualitative'** or '**mixed methods researcher'** compared to 'quantitative researchers'*

3. Research Methods and Approaches Used and Published in the Last Year

Respondents were asked to identify the research methods and approaches they had used and published with in the last year. Participants were given a list of research methods and asked to tick 'Yes' or 'No' to indicate whether they had used or published with them in the last year. Table 4.7 and Figure 4.1 show the percentage of participants who used and published with different research methods and approaches in the last twelve months. The most commonly employed research methods were semi-structured interviews, followed by document analysis and surveys. Likewise, these were methods that participants reported publishing with most frequently in the last year. In comparison, experiments, social network analysis and analysis of longitudinal quantitative data were the research methods least commonly used and published with.

Similar to recent research conducted by MacInnes et al. (forthcoming) the data collected here shows that the most commonly employed *quantitative* research method was the survey approach. Of the final sample, 65.7% of respondents had conducted a survey in the last year and 50.1% of participants had published using data derived from a survey.

Table 4.7: Which of the following methods or approaches have you a) used in research b) published using in the last year?

Research Method/Approach	Used	Published
	Yes (%)	**Yes (%)**
Action Research	24.9	16.4
Content Analysis	58.5	42.1
Document Analysis	72.4	61.7
Ethnography	59.9	43.8
Experiment	13.1	8.8
Focus Group	62.5	43.3
Longitudinal Qualitative Research	31.2	25.1
Longitudinal Quantitative Research	26.5	19.9
Participant Observation	58.9	43.1
Participatory Methods	44.8	31.8
Secondary Qualitative	36.8	27.1
Secondary Quantitative	53.6	38.9
Semi-Structured Interview	90.2	76.4
Social Network Analysis	20.5	11.5
Standardised Interview	41.9	31.2
Structured Observation	32.1	24.5
Surveys	65.7	50.1
Unstructured Interview	61.5	48.0
Column percentages do not add up to 100% because multiple responses allowed		

Figure 4.1: Which of the following methods or approaches have you a) used in research b) published using in the last year?
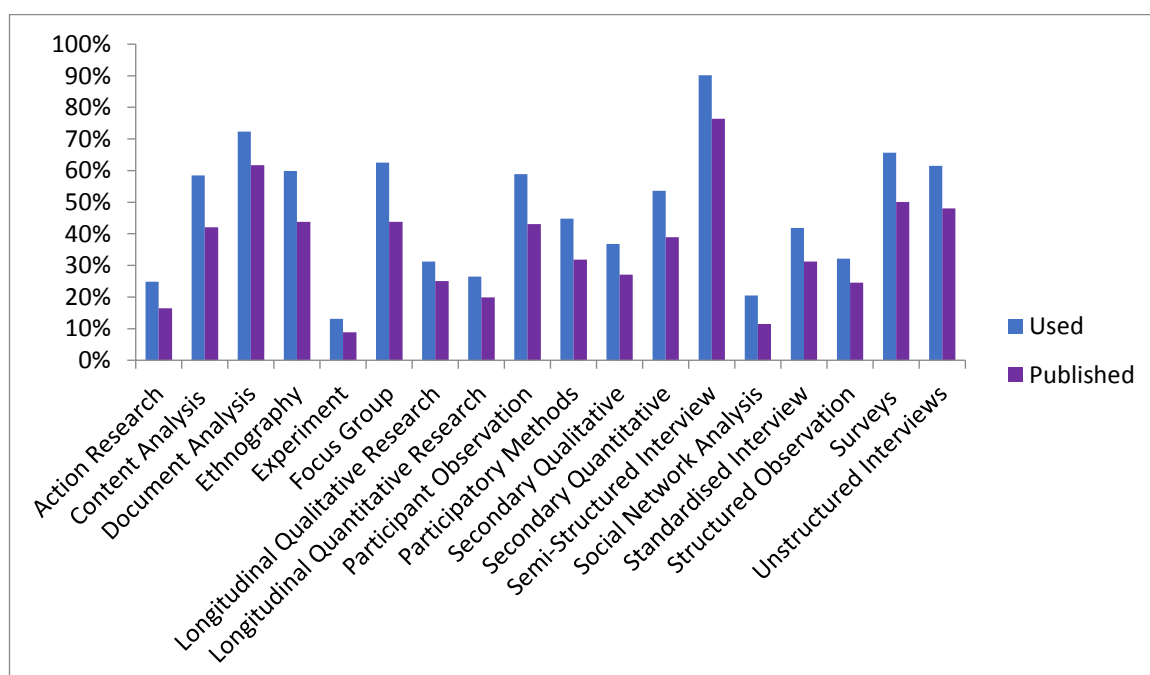
*Figure 4.2: Which of the following methods or approaches have you **used** in research in the last year? Respondents identifying as 'quantitative', 'qualitative' or 'mixed methods' researchers*
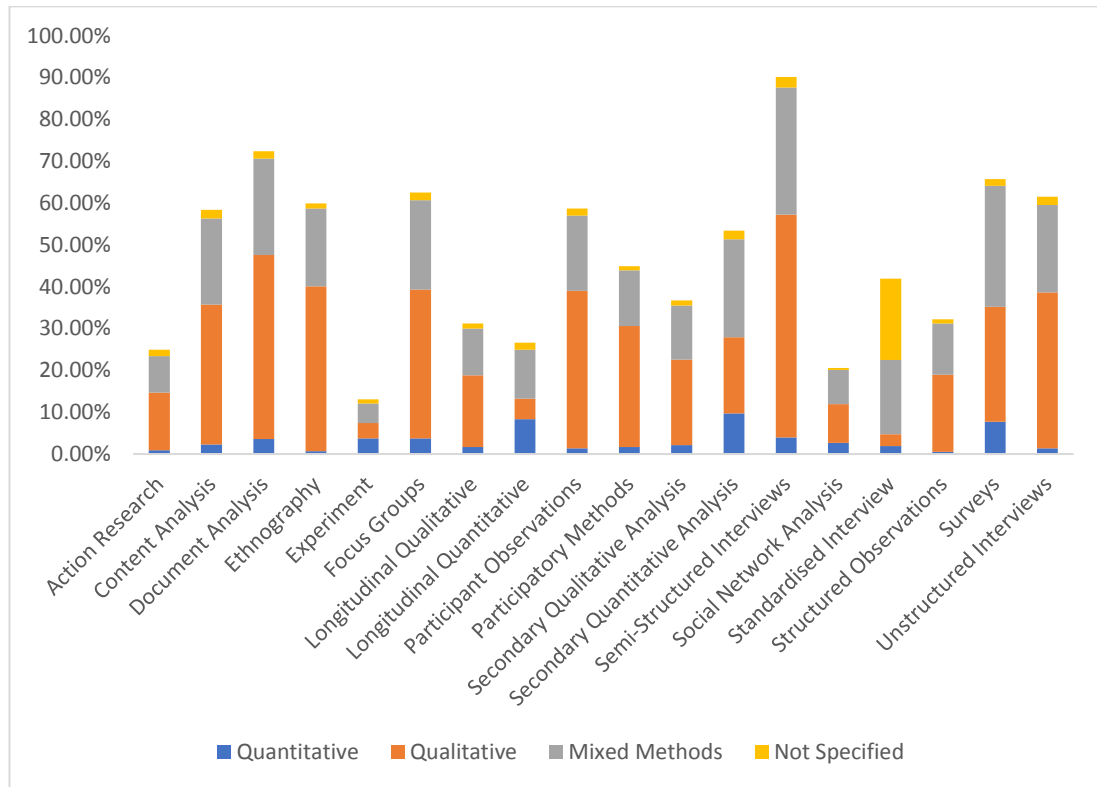
*Figure 4.3: Which of the following methods or approaches have you **published** with in the last year? Respondents identifying as 'quantitative', 'qualitative' or 'mixed methods' researchers*
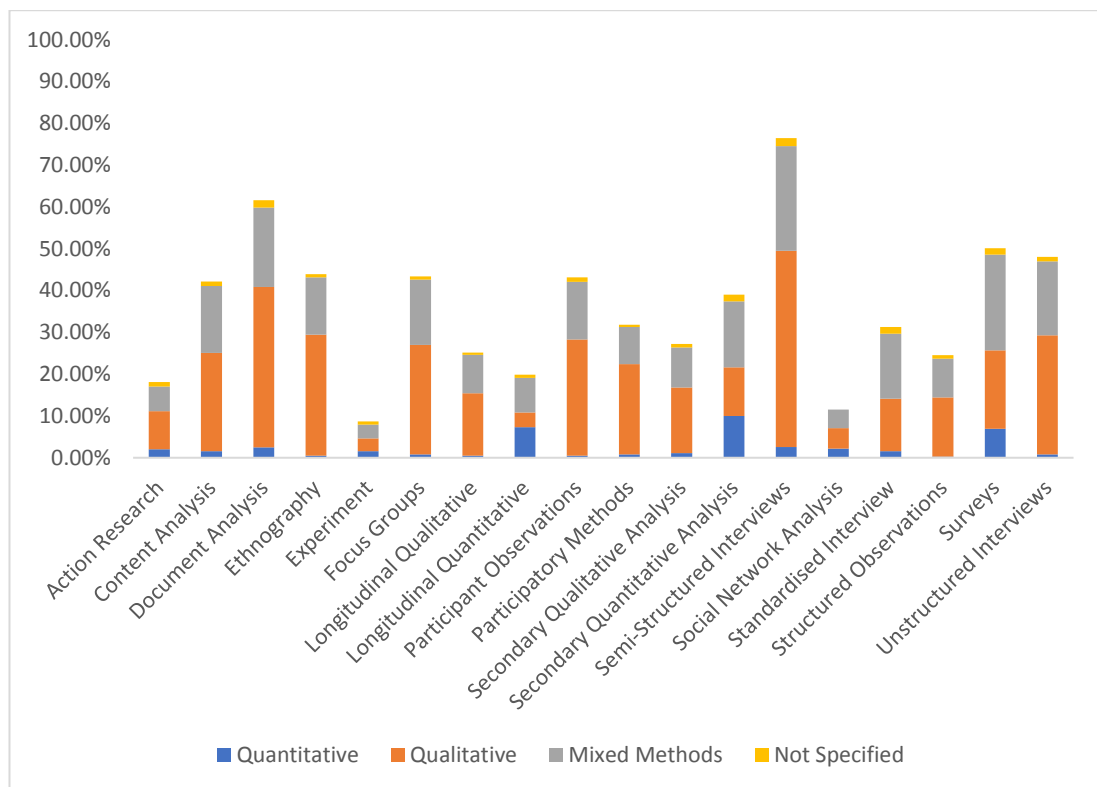
Those who identified as 'quantitative researchers' were most likely to have used and published using secondary quantitative data (see figures 4.2 and 4.3). Meanwhile, those who identified as 'qualitative' or 'mixed methods researchers' were most likely to have employed and published using semi-structured interviews. As might be expected, 'mixed methods researchers' reported using and publishing with the greatest range of methods and approaches. On average, those who stated that they were a 'mixed methods researcher' reported using 9 (rounded to nearest whole number) different research methods in the past year and publishing with 6. This is in comparison to 6 and 4 used and published respectively by 'quantitative researchers' and 8 and 6 by 'qualitative researchers'. A Kruskal-Wallis H test revealed that difference in the mean number of research methods employed by the different groups of sociologists in the sample was statistically significant ($x^2(2)=18.52$, $p<0.05$). Equally, the difference in the number of methods used in publications, between the groups of sociologists was also statistically significant ($x^2(2)=11.86$, $p<0.05$).

This difference in number could simply reflect differences between quantitative and qualitative approaches to research. While quantitative research and analysis is limited by the structures of mathematics, qualitative research and analysis can be endlessly expandable and multimodal. Indeed, Gray (2014: Chapter Seven) explained that qualitative research designs, in contrast to quantitative ones, often involve the use of several different methods and strategies alongside each other.

Two-step cluster analysis was run to see whether respondents fell into distinct groups according to the methods they reportedly used and published with in the last year. Cluster analysis seeks to uncover homogenous groups of respondents or objects in the data (Sheskin, 2007: 1647). The analysis was exploratory, as opposed to confirmatory, therefore the final number of cluster groups was not predetermined.

Two-step cluster analysis showed that respondents fell into two broad categories according to the approaches they reported using and publishing with in the last year. The silhouette measure of cohesion and separation (a coefficient ranging between -1 and +1 which is calculated to denote cluster quality) showed that quality of the clusters was fair. The larger cluster contained 65.4% of participants, while 34.6% of participants fell into the smaller cluster. Table 4.8 shows the ten most important variables in determining cluster group membership and the modal response to these variables for both clusters of respondents. The most important variables in determining group membership were whether a researcher had published with data from semi-structured interviews, participant observations or

unstructured interviews. The first and larger cluster contained participants who were most likely to have responded 'Yes' to publishing with these three methods. In contrast the second, smaller, cluster of researchers were more likely *not* to have used or published with these methods or approaches. Meanwhile the second group had higher percentages of participants responding 'Yes' to using quantitative approaches, most notably, conducting secondary analysis of existing quantitative data.

Table 4.8: Which of the following methods or approaches have you a) used in research b) published using in the last year?

Variable Name	Cluster 1: Qualitative Researchers Modal Response (65.4%)	Cluster 2: Quantitative Researchers Modal Response (34.6%)
Published Semi-Structured Interviews	Yes	No
Published Participant Observations	Yes	No
Published Unstructured Interviews	Yes	No
Published Ethnography	Yes	No
Used Participant Observations	Yes	No
Used Ethnography	Yes	No
Published Document Analysis	Yes	No
Used Unstructured Interviews	Yes	No
Published Focus Groups	Yes	No
Published Structured Observations	No	No
N	193	102

Broadly, the clusters appeared to group respondents as either 'quantitative' or 'qualitative' researchers. This leads to some questions over the idea of a mixed methods researcher. On the one hand, it could be that researchers involved in large-scale projects which call upon *both* quantitative and qualitative research methods may consider themselves to be a mixed methods researcher, despite perhaps only contributing either quantitative or qualitative data or data analysis to the project. Alternatively, participants may have wished to not be perceived as methodologically niche or did not consider themselves an expert in either quantitative or qualitative research methods, and hence reported being a mixed methods researcher as opposed to either a quantitative or qualitative researcher.

Table 4.9: Crosstabulation between cluster group membership and engagement with quantitative and qualitative research methods

	Cluster 1: Qualitative Researchers (%)	Cluster 2: Quantitative Researchers (%)
Last Year Qualitative		
A lot	75.4	24.6
Some	58.2	41.8
Very Little	30.4	69.6
None At All	30.8	69.2
Last Year Quantitative		
A lot	**40.4**	**59.6**
Some	**73.6**	**26.4**
Very Little	**79.2**	**20.8**
None At All	**60.8**	**39.2**
Researcher Identity		
Quantitative	**13.3**	**86.7**
Qualitative	**70.6**	**29.4**
Mixed Methods	**72.5**	**27.5**
Percentages in **bold** indicate statistical significance		

Cluster group membership was saved as a new variable and further bivariate analysis was conducted to investigate whether there were relationships between, group membership, researcher identity as a 'quantitative', 'qualitative' or 'mixed methods researcher', and the degree to which respondents reported that they had used quantitative and qualitative methods in the last year (Table 4.9). This was to assess the validity of the clusters and the cluster group names. Of those who reported that they were a 'quantitative researcher', 86.7% fell into the 'quantitative researcher cluster' and 70.6% of those who classified themselves as a 'qualitative researcher' fell into the 'qualitative researcher cluster'. Interestingly, 72.5% of participants who saw themselves as 'mixed methods researchers' belonged to the 'qualitative researcher cluster'. The relationship between cluster group membership and the type of researcher that a respondent primarily classified themselves as, was statistically significant (X^2=39.95, 2df., p<0.05). As expected, crosstabulations of the data showed that those who reported undertaking 'a lot' of quantitative research in the last year were more likely to belong to the quantitative methods cluster, while those who reported not undertaking any quantitative research methods in the last year were more likely to belong to the qualitative methods cluster. Chi-square analysis showed that this relationship was also statistically significant (x^2=22.02, 3df., p<0.05). A relationship between cluster group membership and reported usage of qualitative methods in the last year was detectable, with those using qualitative methods in the last year being more likely to belong

to the qualitative researcher cluster. However, due to the low cell count, it is not possible to determine whether this relationship is statistically significant.

The cluster analysis also underscored the limited number of methods those participants who belonged to the 'quantitative researchers' cluster group used and published with. The 'quantitative researchers' cluster only reported using surveys and conducting secondary analysis of existing datasets in the last twelve months. Additionally, the output showed that the importance of using or publishing with these methods was low in determining group membership. Hence, the absence of qualitative methods or approaches was more important in attributing group membership to the 'quantitative researchers' group than engagement with quantitative research methods. This supports the findings shown above, that there are statistically significant differences in the number of methods used and published between different groups of researchers, with quantitative researchers using and publishing with the smallest *variety* of methods.

The absence of a third cluster of respondents utilising or publishing with both qualitative and quantitative methods, and the relatively small number of research methods respondents reported using and publishing with, reinforces MacInnes et al., (forthcoming) argument that researchers in the discipline are becoming increasingly methodologically niche. The authors described a decline in the number of articles published in mainstream British sociology journals using a combination of methods, stating:

> […] without an explicit labelling of 'mixed method', sociologists' in the 1960s were much more likely to draw on a range of evidence in addressing a research question. This is not to say social research methods today are comparatively deficient; on the contrary they have been greatly developed and refined. However, as they have become more specialised, it may be that researchers have become more ensconced within their particular fields and less likely to engage with alternative approaches. (MacInnes et al., forthcoming: 26)

This argument casts doubt over the future trajectory of the discipline. Without an appreciation of both theoretical and empirical work, as well as both quantitative and qualitative research methods, the extent to which researchers can engage with other research, utilise, and build upon previous findings, and create theoretical links, is called to question.

Summary:

Overall, the latter section of the analysis presented in this chapter, has discussed the different methods or approaches employed and used in publications by the survey sample. Popular methods among the sample included, document analysis, surveys, unstructured interviews, and focus groups. Almost all of those who had used any empirical methods stated that they had used semi-structured interviews in the last year. These findings demonstrate a preference for the generation of qualitative data among the survey sample.

Statistically significant differences in the number of methods used and published with were also reported, with 'mixed methods' and 'qualitative researchers' being more likely to engage with a variety of methods than 'quantitative researchers'. This may suggest that it is easier, more appropriate, or more feasible, to use a variety of approaches in qualitative research compared to quantitative research. It could also support May's (2005) argument that qualitative projects are less time and resource intense and therefore more 'do-able' than quantitative projects.

Cluster analysis revealed two groups of respondents; those that had used and published with qualitative methods in the last year, and those who had not. The latter cluster, who had not used or published with qualitative methods represented a smaller group of participants. These respondents were more likely to have conducted secondary analysis of quantitative data or survey research.

The key summary of this section of the analysis is:

- *The **most frequently used** method in the last year among the survey sample was the **semi-structured interview***
- *The **most frequently** used method in **publications** in the last year among the survey sample was also the **semi-structured interview***
- *The **least frequently used** method in the last year among the survey sample was the **experiment***
- *The **least frequently** used method in **publications** in the last year among the survey sample was also the **experiment***
- ***'Mixed methods researchers'** and **'qualitative researchers'** used a statistically significantly **greater range of methods** than 'quantitative researchers'. This could reflect the nature of quantitative and qualitative data analysis. While the former is restricted by the laws of number, the latter can be endlessly explored. Previous*

literature has also described qualitative research as more 'do-able' given time and monetary constraints

- *Respondents clustered into **two separate groups** based on the research methods they had used and published with in the last year. **65.4%** fell into the **'qualitative researchers cluster'** and **34.6%** belonged to the **'quantitative researchers cluster'**. There was **no group** which reported using and publishing with **both quantitative and qualitative approaches***

4. Chapter Summary and Discussion

This chapter investigated the extent to which survey respondents engaged with quantitative research. The minority of the survey participants identified as 'quantitative researchers', while the majority classified themselves as 'qualitative researchers'. Equally, over 35% of the participants stated that they had not used quantitative research methods in the last year. This supports previous findings of content analyses of mainstream British sociology journals which highlighted the marginalised place of quantitative methods in the discipline (Payne et al., 2004; Roth et al., 2016; MacInnes et al., forthcoming).

Results from multinominal logistic regression analysis showed the demographic variables that predicted the odds of respondents using quantitative methods, qualitative methods and identifying as a 'qualitative', 'quantitative' or 'mixed methods' researcher. Obtaining a qualification abroad increased the likelihood of an individual engaging with quantitative research methods and decreased the odds of them identifying as a 'qualitative researcher' or reporting using 'a lot' of qualitative research methods in the last year. This suggests that important lessons about research methods teaching and training could be obtained from looking at practices abroad. Chapter Seven (The Quantitative Experience of the UK, New Zealand and the Netherlands) will look in more detail at how British sociology compares to other national sociologies in respect to its ability to effectively answer research questions at both the macro and micro levels and will begin to consider what lessons can be learnt by looking at the discipline in New Zealand and the Netherlands.

Equally, gender differences were apparent with regard to use of qualitative research methods in the last year. While statistically significant differences were found in the use of qualitative research methods between males and females, no significant gender differences were found in the usage of quantitative research methods.

Interestingly, age was a statistically significant predictor of use of quantitative methods in the last year and identification as a 'quantitative researcher'. Those aged 18-34 were less likely than those aged 55 and over to have used 'some' quantitative research methods in the last year compared to having 'not' used them at all. However, those aged 18-34 were also statistically significantly more likely than those aged 55 and over to classify themselves as a 'quantitative researcher' as opposed to a 'mixed methods researcher'. These somewhat contradictory findings could be explained by the fact that older researchers who perhaps have been working in the discipline for longer, may be more likely to be involved in large-scale mixed methods projects as opposed to their more junior colleagues. As a result, they may be more likely to identify as a 'mixed methods researcher'. An alternative possibility is that, as proposed by MacInnes et al., (forthcoming), researchers are nowadays becoming increasingly committed to a few methodological approaches. This is perhaps most salient in younger researchers who due to the increasing pressures of academia feel it necessary to specialise both substantively and methodologically. With this in mind, Chapter Six (Purpose and Future Direction of British Sociology) will further investigate the differences in the research practices of participants and views of the discipline held by respondents of different ages. These data will be used to make inferences about the future status and direction of the discipline in the UK.

Cluster analysis grouped participants into two groups; those who primarily used and published with qualitative methods, and those who primarily used and published with quantitative methods. The latter group consisted of less than 35% of the respondents, reinforcing the argument that quantitative research is side-lined in the discipline. The absence of a third group of mixed methods researchers supports MacInnes et al. (forthcoming) argument that while the notion of mixed methods research is very much celebrated in the discipline nowadays, those practicing it are much fewer than in previous decades.

A limitation of the analysis presented here is the fact that researchers were crudely classified as either 'quantitative researchers', 'qualitative researchers' or 'mixed methods researchers' (See Section 13.1: issues of measurement and analysis: Quantitative versus Qualitative Research in Chapter Three). However, the risk of misclassification was minimised as respondents were able to self-identify as a 'quantitative', 'qualitative' or 'mixed methods researcher'. Participants were also able to self-classify the extent to which they believed they had engaged with quantitative and qualitative methods in the last twelve months.

Overall, this chapter has highlighted the current position of quantitative methods in British sociology. In particular, the analysis presented here has led to questions over the advancement of the discipline in the UK if researchers are not to engage with different methods or to study social phenomena using different approaches and perspectives. Building on previous research, the next chapter will suggest that the marginalisation of quantitative research methods in British sociology as demonstrated in this chapter, may be the product of how the discipline is viewed.

Chapter 5 : The Nature of British Sociology

"I would argue that sociology has become focussed on more micro concerns rather than the macro sociology of the past. There is a need to ask 'big', societal questions again."

(Mixed Methods Researcher, Male, Lecturer or Equivalent, Aged 18-34)

Research question(s) addressed in this chapter:

R.Q 2: *Does British sociology have the necessary methodological expertise and interest to investigate contemporary social issues on both the macro and micro levels?*

R.Q 3: *Is a resistance toward quantitative research methods and skills in British sociology undermining the discipline's status?*

1. Introduction

It is possible that the preference toward using qualitative methods among the survey respondents may be an indication, or by-product, of how the participants viewed the nature of the discipline. For instance, it has been suggested that, with the expansion of the discipline in the 1960s and 1970s came a preference for investigating micro sociological topics (Payne, 2014b). This trend was accompanied by an acceptance that qualitative techniques were more suitable in understanding individuals' lived experiences, while quantitative techniques were more appropriate for studying macro social processes. Therefore, changes in the popularity of certain research topics may be responsible for, or linked to, the reported deficit of quantitative research in the discipline. As such, it is important to discuss the different areas of research investigated in British sociology and the consistency, or lack of, with which researchers reported exploring specific areas.

Williams (2000a) claimed that the expansion of British sociology coincided with a growing scepticism over the value of science as a positive influence on society. Following the Vietnam War, people began to note the ill-effects of science and technology and attributed the development of 'evil' to the sciences. Meanwhile, the arts and humanities were perceived as pure and natural. For many, the study of sociology became a possible means toward greater, personal emancipation.

Following this, Williams et al. (2017) suggest that distinct sociologies have emerged as a result of a series of 'cultural wars' in the development of the discipline. These authors contrast 'analytic' sociologies with 'critique' sociologies, arguing that this dichotomy has been present throughout the history of sociology and its analogous disciplines. Compared to '*critique*' sociologies, '*analytic*' sociologies are described as those that aim "to produce descriptions and explanations of social phenomena" (p.3). Taking a longer view, Williams et al. (2017) highlight the contrasting approaches of the Aristotelian and Galilean traditions and, later, the diverging views on how to study the social world which were promoted in the *Methodenstreit* dispute. The two sociologies can also be seen in the dichotomy between the scientific causal approach and the hermeneutic tradition of understanding, and the divide between the approaches to sociology advocated by the Columbia and the Chicago School in early US sociology.

Therefore, this chapter will explore how professional sociologists see their discipline by investigating the research topics survey respondents stated as their own areas of research, and the research topics they listed as core to their discipline. The latter section of the analysis aims to explore how respondents described their discipline and whether they viewed sociology as closer to the arts and humanities or the natural sciences. The variables included in this chapter are detailed in Appendix 4.

2. Research Areas and Core Discipline Research Areas

The findings presented here are based on analysis of the data on the areas respondents listed as best characterising their *own research*, and the areas respondents identified as typifying the *core of British sociology*. Participants were asked to list these areas in order of importance, with the most important area of their research being listed first and the area they felt was most core to sociology listed first. These responses were coded using a modified version of Charles Crother's (2008) classification scheme (see Appendix 5).

Table 5.1 shows the areas of research that participants reported their research fell into. Area 1 is the area of research they deemed most important to their work. The five responses with the greatest frequencies for each of the areas are shown in the table. Table 5.2 shows the areas of research that respondents believed were core to the discipline. Area 1 is the area of research which participants deemed as most core to British sociology. The five responses that were reported with the greatest frequencies for each of the areas are listed in the table.

Table 5.1: Which areas of sociology best characterise your work? Please give four examples, listed in order of importance

Most Important		2nd Most Important		3rd Most Important		4th Most Important	
Area 1	%	Area 2	%	Area 3	%	Area 4	%
Gender & Sexuality	10.5	Gender & Sexuality	9.8	Research Methods	12.2	Research Methods	14.9
Health & Medicine	9.2	Research Methods	7.5	Gender & Sexuality	10.0	Social Inequalities, Cohesion & Diversity	8.9
Race, Ethnicity & Migration	7.2	Health & Medicine	6.8	Race, Ethnicity & Migration	6.0	History & Philosophy	8.3
Research Methods	7.0	Race, Ethnicity & Migration	6.8	Family & Childhood	5.7	Health & Medicine	6.0
History & Philosophy	6.7	Social Inequalities, Cohesion & Diversity	6.4	Health & Medicine	5.7	Gender & Sexuality	4.6
N	446		439		419		348

Table 5.2: Which areas do you see as core to sociology? Please give four examples, listed in order of importance

Most Important		2nd Most Important		3rd Most Important		4th Most Important	
Area 1	%	Area 2	%	Area 3	%	Area 4	%
History & Philosophy	20.6	Research Methods	20.0	Research Methods	14.1	Research Methods	18.5
Social Inequalities, Cohesion & Diversity	19.2	Social Inequalities, Cohesion & Diversity	12.6	Social Inequalities, Cohesion & Diversity	12.7	Social Inequalities, Cohesion & Diversity	9.9
Research Methods	11.9	Gender & Sexuality	12.6	Gender & Sexuality	11.4	History & Philosophy	7.5
Social Class	11.0	History & Philosophy	8.2	Race, Ethnicity & Migration	9.7	Gender & Sexuality	6.5
Gender & Sexuality	10.1	Social Class	6.1	History & Philosophy	6.1	Work & Employment	5.9
		Race, Ethnicity & Migration	6.1				
N	573		570		559		523

During the process of coding respondents' answers, it became clear that participants often stated the *same or very similar areas of research for all four areas*. This is in line with Payne's (2007) argument, that sociological researchers are becoming increasingly specialised or concerned with only one specific research topic. Further analysis showed statistically significant associations between stating the same research areas for areas 1,2,3 and 4 for both of the questions.

To deduce the frequency with which each research area was reported, respondents' answers were subsequently summarised. New dichotomous variables were created which recorded whether or not respondents listed a particular research area, based on the answers that they gave in the survey. Tables 5.3 and 5.4 show the summarised data. The top ten areas for each question are shown.

Table 5.3: Which areas of sociology best characterise your work? Summarised

	Research Areas	%
1	Social Inequalities, Social Cohesion and Diversity	17.0
2	Health and Medicine	9.8
3	Race, Ethnicity and Migration	9.4
4	Work and Employment	7.1
5	Family and Childhood	5.8
6	Gender and Sexualities	5.4
6	Identity	5.4
7	Science and Technology	4.2
7	Violence, Crime, Deviance and Policing	4.2
8	Ageing and the Lifecourse	3.1
9	Environment	3.1
10	Social Problems	2.7

Table 5.4: Which areas do you see as core to sociology? Summarised

	Core Discipline Research Areas	%
1	Social Inequalities, Social Cohesion and Diversity	27.8
2	Race, Ethnicity and Migration	12.9
3	Work and Employment	9.7
4	Power	6.6
5	Gender and Sexualities	6.3
6	Identity	5.2
7	Health and Medicine	2.8
7	Structure and Agency	2.8
8	Research Methods	2.6
8	History and Philosophy of Sociology	2.6
9	Social Class	2.1
10	Everyday Life (including leisure)	1.6

The most commonly researched area among the survey sample was 'Social Inequalities, Social Cohesion and Diversity'. Similarly, over a quarter of respondents reported that the study of 'Social Inequalities, Social Cohesion and Diversity' was core to the discipline. In comparison to the list of core disciplinary research areas (Table 5.4) in British sociology, the final summarised list of research areas (Table 5.3) contained more topics which could be classified as micro-sociological research areas than macro-sociological research areas. Despite the observed move toward investigating micro-sociological research areas in British sociology since the discipline's expansion in the 1960s and 1970s (Payne, 2014b), interestingly, *macro-sociological research areas* were still seen as core to the discipline by the survey sample. Not only do research areas such as 'Power' and 'Social Class' feature in the top ten core research areas of British sociology list, they are in some cases placed at a higher rank than certain micro-sociological topics such as 'Everyday Life' and 'Gender and Sexuality'.

It is possible that respondents believed that macro-sociological issues could be investigated at the micro level. For instance, respondents may have explored topics such as 'Power' or 'Social Class' at the micro-social level, in relation to how certain groups of social actors understand or experience these macro-sociological issues in their individual, everyday life. This could go some way toward explaining the disjunction between the areas of sociology reported as core to the discipline and respondents' own research areas.

It is also important to reflect on how these research areas may impact on the research methods employed by sociologists and ultimately, the extent to which the discipline can be seen as able to answer all research questions. Kelle (2005) argued that quantitative techniques often lend themselves toward the study of macro-social phenomena, while the strengths of qualitative techniques are in their capacity to highlight micro-sociological processes and interactions. Following this, it seems that a preference for qualitative techniques among the final survey sample was likely given the list of most popular research areas (Table 5.3).

Summary:

To summarise, the first section of the analysis in this chapter, has shown that there was a lot of overlap in the four research areas which respondents stated they worked in. Therefore, the data was summarised. 17% of the sample stated their work fell into the research area; 'Social Inequalities, Social Cohesion and Diversity'. Other popular research areas included

'Health and Medicine', 'Family and Childhood' and 'Identity'. There seemed to be a *preference* among the survey respondents *toward researching micro-social issues*.

Similarly, the areas respondents believed were core to the discipline were summarised. More than a quarter of respondents stated that 'Social Inequalities, Social Cohesion and Diversity' was core to the discipline. While 'Health and Medicine' was listed as core to the discipline, the frequency with which participants stated it, was much *less* than the percentage of participants who reported working in that research area. Equally, other popular research areas such as 'Family and Childhood' were *not present* in the list of ten most frequently reported core research areas. Moreover, *macro sociological areas* such as 'Power' and 'Structure and Agency' were listed as *core to the discipline*, while not appearing on the list of most frequently researched areas. The core list of research areas, also featured topics such as 'Research Methods' and the 'History and Philosophy of Sociology'.

Thus, the analysis has shown;

- *The **most frequently** reported **research area** among the survey sample was **'Social Inequalities, Cohesion and Diversity'***
- *Other **frequently reported research areas** among the survey sample included **micro-sociological** topics such as; **'Family and Childhood'**; **'Gender and Sexuality'**; **'Identity'**, and **'Ageing and the Lifecourse'***
- *The **most frequently** reported **core research area** among the survey sample was also **'Social Inequalities, Cohesion and Diversity'***
- *Other **frequently reported core research areas** among the survey sample included; **'Power'**; **'Structure and Agency'**; **'Research Methods'**, and **'History and Philosophy of Sociology'***
- *There was a **disjunction** between areas participants reported **working in** and areas participants saw as **core** to the discipline*
- *Respondents were **more likely** to report **working** in **micro-sociological** research areas, while **macro-sociological** areas were considered **core** to the discipline*

3. What is Sociology?

The second part of the analysis in this chapter seeks to explore how sociologists describe their discipline. To achieve this, the analysis investigates which definitions and adjectives the survey participants endorsed or rejected as descriptors of British sociology. The definitions

and adjectives of the discipline which were included in the survey were taken from material published by professional sociological associations and professional sociologists.

Participants used semantic differential scales ranging from 1 to 10 to indicate whether they thought the adjectives and definitions were 'Very Poor' or 'Very Good' at describing British sociology. A score of **1** denoted **'Very Poor'** while a score of **10** demonstrated that an adjective or definition was **'Very Good'** at describing the discipline. Tables 5.5 and 5.6 describe the distribution of responses for each variable. Z-scores for skewness and kurtosis are reported, however, these figures should be considered alongside the graphical representation of the responses due to the large sample size in the present study (Field, 2009: Chapter Five). Therefore, figures 5.1, 5,2, 5.3 and 5.4 summarise the scores that survey participants gave for each of the adjectives included in the analysis. Figures 5.5 and 5.6 summarise the scores that respondents award each of the definitions included in the analysis.

Figure 5.1: Please indicate on the scales below how well you think that the following adjectives describe British sociological research in general, where 1 indicates a very poor description and 10 indicates a very good description.

130
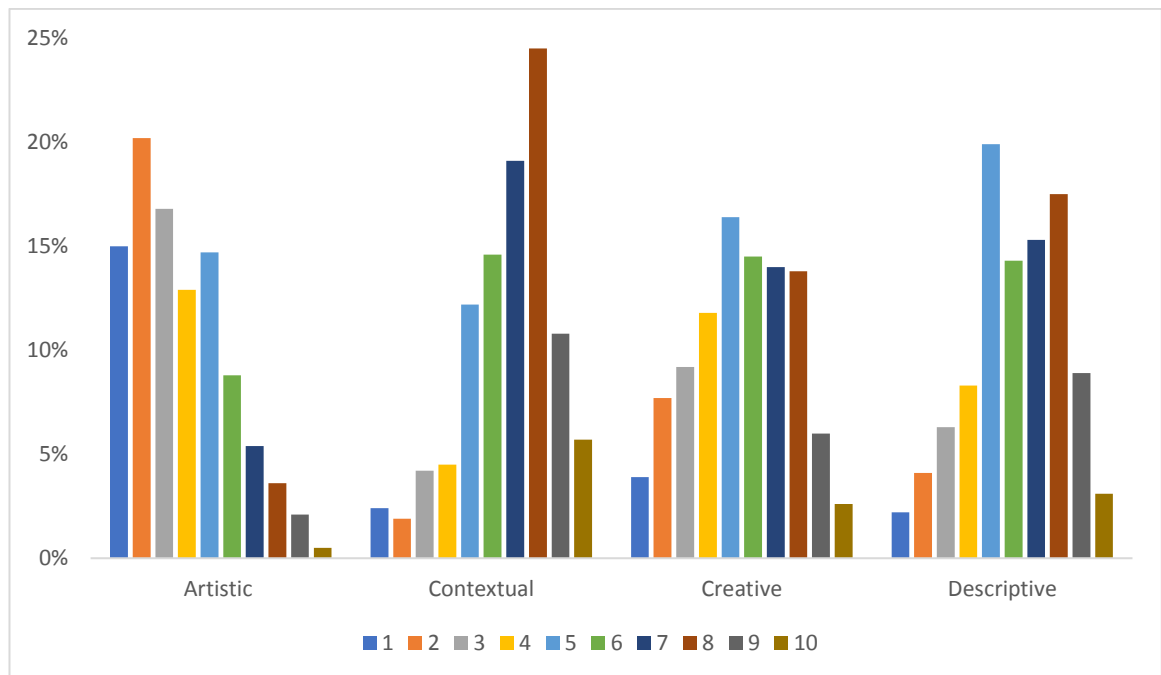
Figure 5.2: Please indicate on the scales below how well you think that the following adjectives describe British sociological research in general, where 1 indicates a very poor description and 10 indicates a very good description
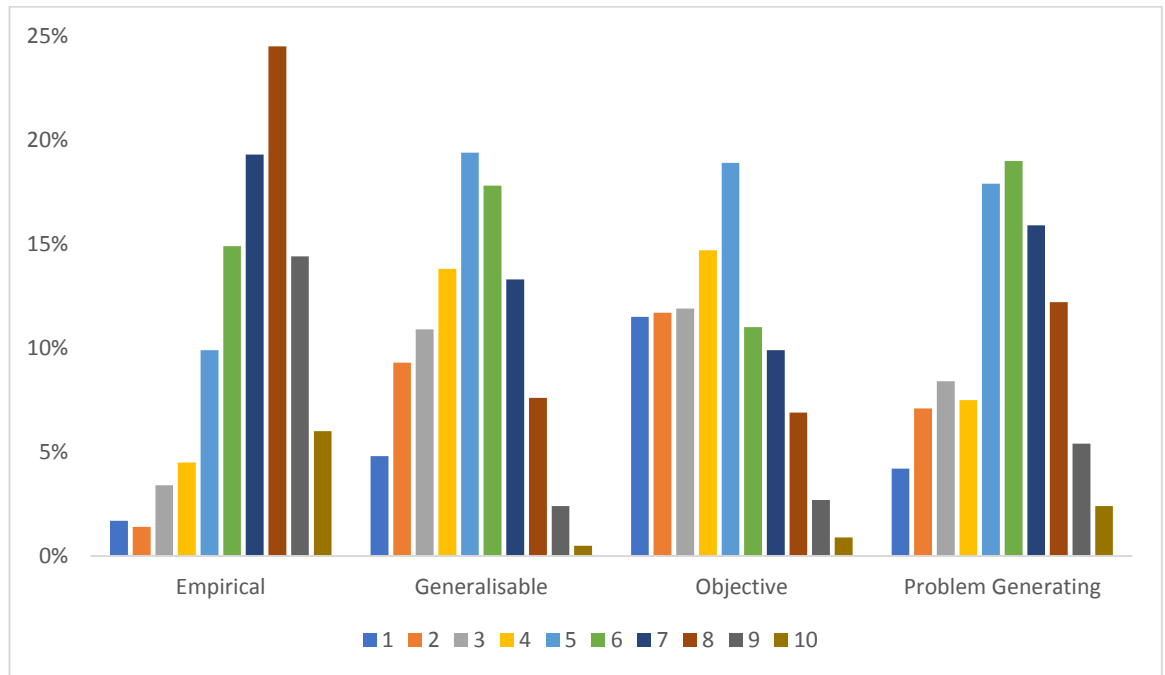
Figure 5.3: Please indicate on the scales below how well you think that the following adjectives describe British sociological research in general, where 1 indicates a very poor description and 10 indicates a very good description
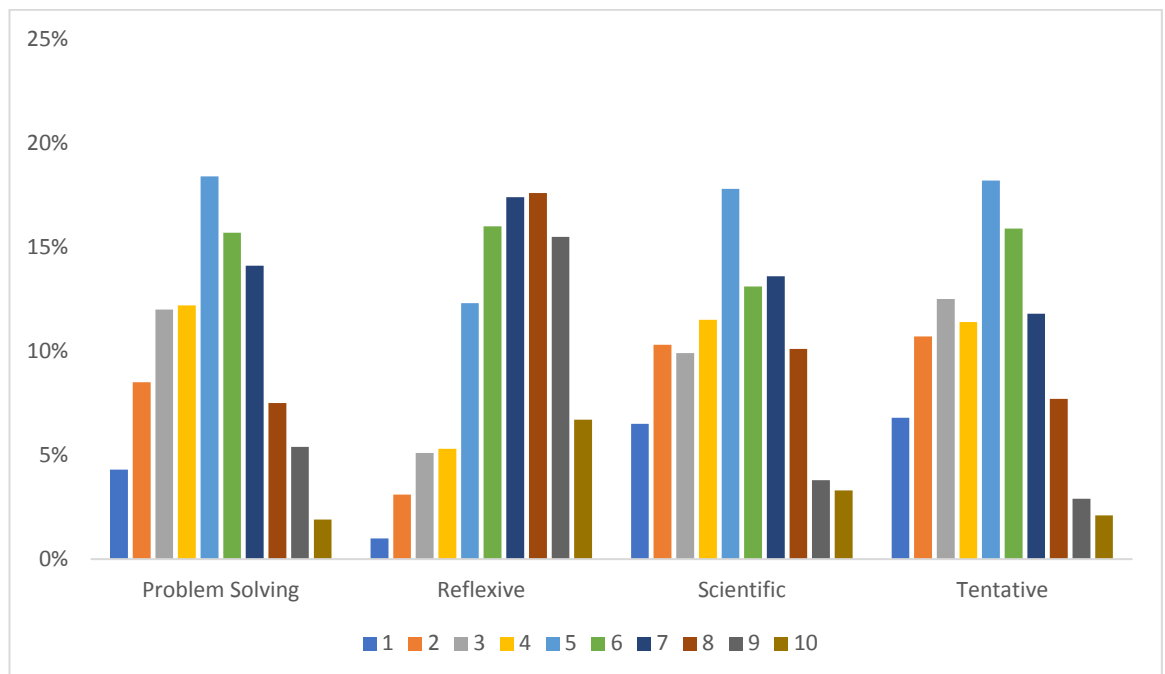
Figure 5.4: Please indicate on the scales below how well you think that the following adjectives describe British sociological research in general, where 1 indicates a very poor description and 10 indicates a very good description
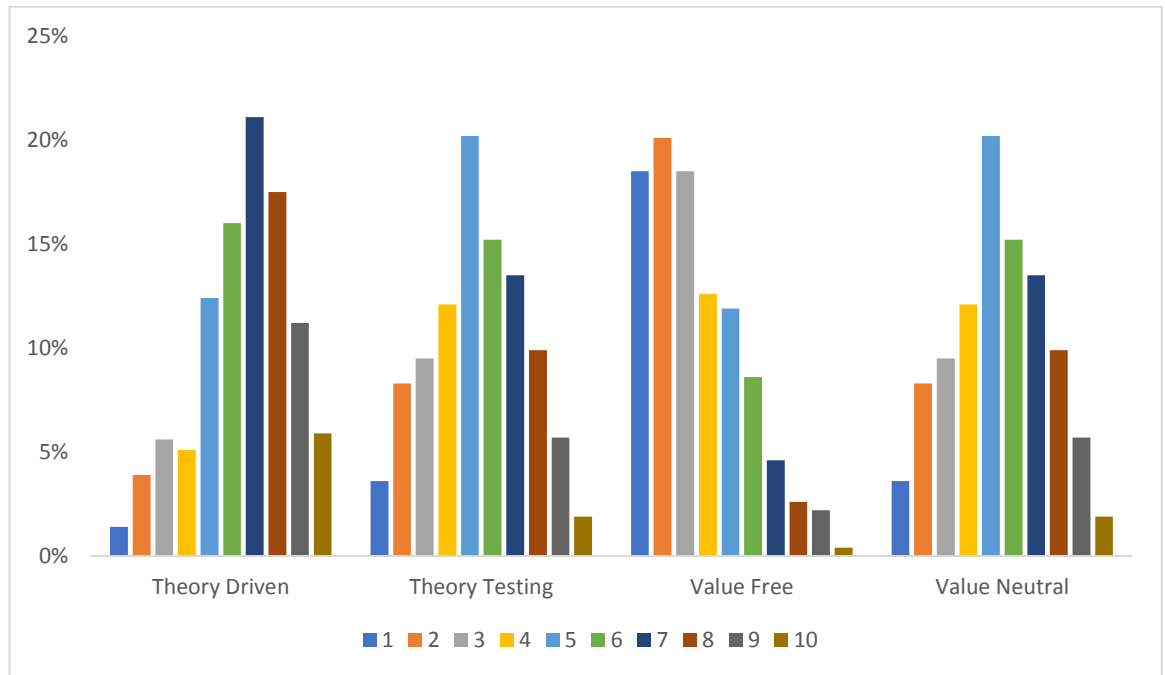
Figure 5.5: The following definitions of sociological research have been published by sociological associations and professional sociologists. Please indicate on the scales below how representative you think the definitions are of British sociological research, where 1 indicates a very poor description and 10 indicates a very good description
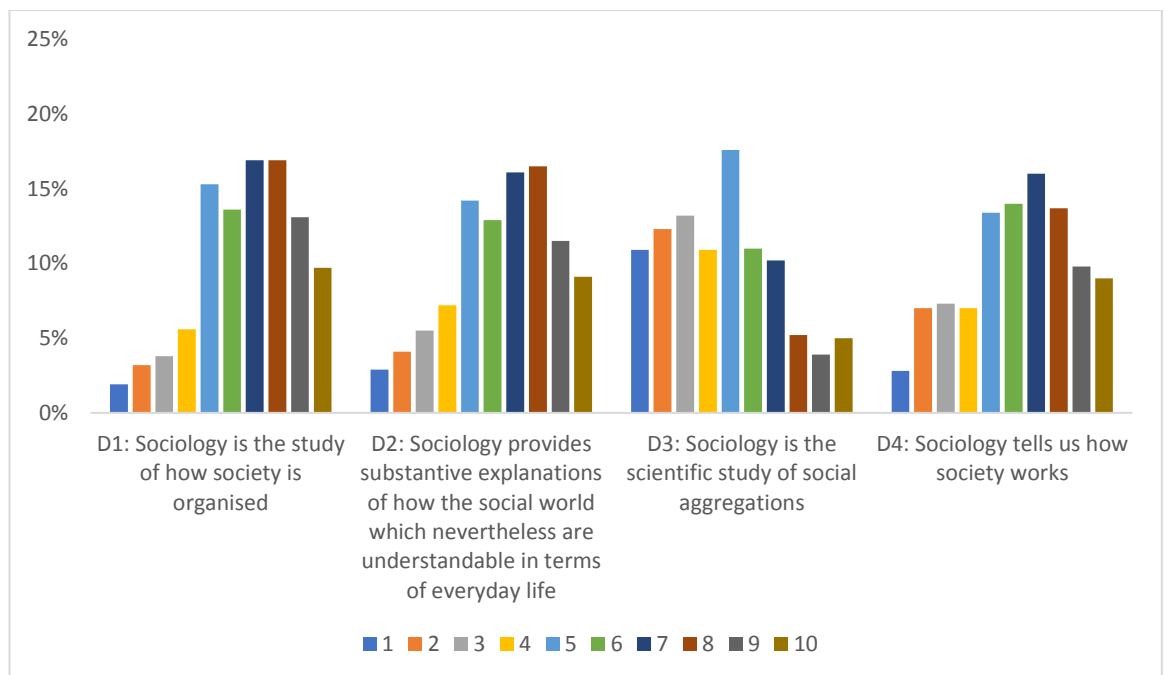
Figure 5.6: The following definitions of sociological research have been published by sociological associations and professional sociologists. Please indicate on the scales below how representative you think the definitions are of British sociological research, where 1 indicates a very poor description and 10 indicates a very good description
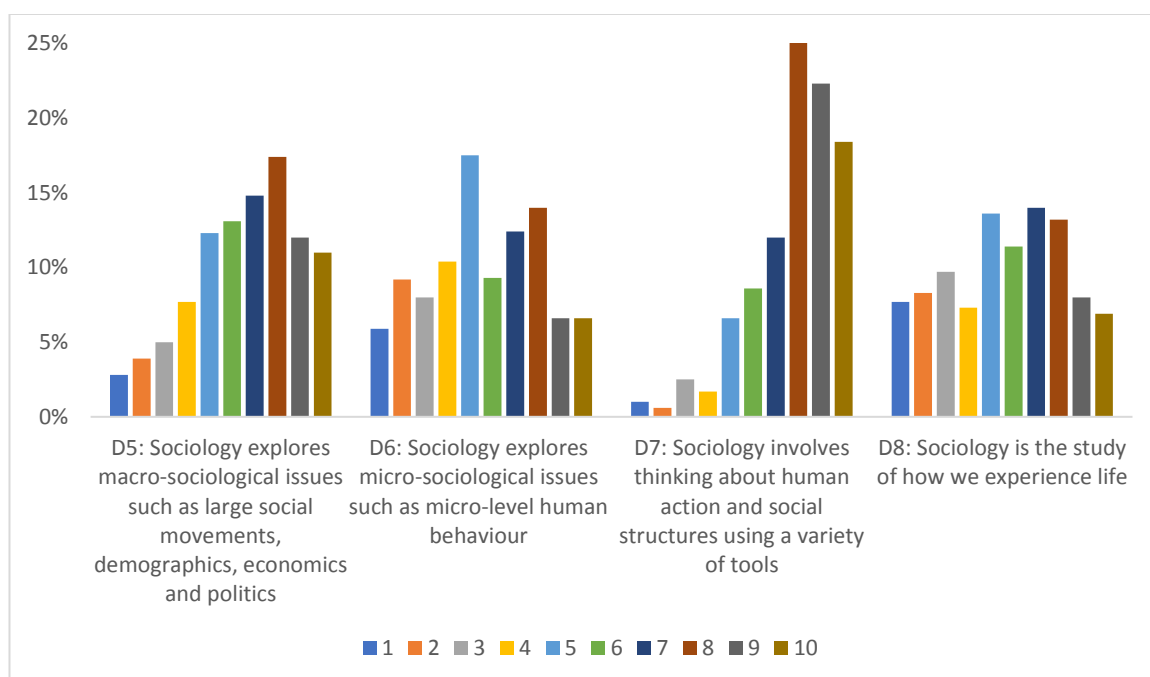
Table 5.5: Please indicate on the scales below how well you think that the following adjectives describe British sociological research in general, where 1 indicates a very good description and 10 indicates a very good description. Table of mean scores.

Adjective	Mean Score	Z-Score of Skewness		Z-Score of Kurtosis	
Artistic	3.74	5.46	Strong positive skew	-1.54	No kurtosis
Contextual	6.70	-6.55	Strong negative skew	1.57	No kurtosis
Creative	5.52	-1.16	Normally distributed	-3.29	Negative kurtosis
Descriptive	6.06	-2.84	Slight negative skew	-1.84	No kurtosis
Empirical	6.92	-6.85	Strong negative skew	2.0	Negative kurtosis
Generalisable	4.97	-1.34	Normally distributed	-2.57	Negative kurtosis
Objective	4.47	1.45	Normally distributed	-3.29	Negative kurtosis
Problem Generating	5.59	-2.93	Slight negative skew	-2.45	Negative kurtosis
Problem Solving	5.18	-0.01	Normally distributed	-2.99	Negative kurtosis
Reflexive	6.70	-4.73	Negative skew	-1.15	No kurtosis
Scientific	5.14	0.28	Normally distributed	-3.40	Negative kurtosis
Tentative	4.89	0.63	Normally distributed	-2.78	Negative kurtosis
Theory Driven	6.52	-4.59	Negative skew	-0.60	No kurtosis
Theory Testing	5.34	-0.36	Normally distributed	-2.86	Negative kurtosis
Value Free	3.52	6.65	Strong positive skew	-0.51	No kurtosis
Value Neutral	3.86	4.70	Positive skew	-2.22	Negative kurtosis

Table 5.6: The following definitions of sociological research have been published by sociological associations and professional sociologists. Please indicate on the scales below representative you think the definitions are of British sociological research, where 1 indicates a very poor description and 10 indicates a very good description

Descriptor	Mean Score	Z-Score of Skewness		Z-Score of Kurtosis	
D1: Sociology is the study of how society is organised	6.69	-5.16	Negative skew	1.30	No kurtosis
D2: Sociology provide substantive explanations of the social world which nevertheless are understandable in terms of everyday life	6.44	-4.65	Negative skew	-2.45	Negative kurtosis
D3: Sociology is the scientific study of social aggregations	4.70	3.68	Positive skew	-3.56	Negative kurtosis
D4: Sociology tells us how society works	6.17	-3.15	Negative skew	-3.91	Negative kurtosis
D5: Sociology explores macro-sociological issues such as large social movements, demographics, economics and politics	6.57	-5.04	Negative skew	-2.61	Negative kurtosis
D6: Sociology explores micro-sociological issues such as micro-level human behaviour	5.58	-0.74	Normally distributed	-4.93	Negative kurtosis
D7: Sociology involves thinking about human action and social structures using a variety of tools	7.81	-11.75	Very strong negative skew	6.93	Positive kurtosis
D8: Sociology is the study of how we experience life	5.63	-1.86	Normally distributed	-5.23	Negative kurtosis

'Empirical' was the adjective that received the highest mean score, while 'value-free' received the lowest mean score. Inspecting the graphs and looking at the z-scores of skewness, it appears that adjectives including; 'artistic' and 'value-free' were generally considered very poor descriptors of British sociology while 'empirical' and 'contextual' were generally deemed very good descriptors of the discipline. Moreover, the negative z-scores of kurtosis for some of the adjectives, suggest that the sample were more divided in their views on the appropriateness of these adjectives to describe British sociology. For example, the responses for the variables; 'scientific'; 'problem-solving', and 'tentative' all displayed platykurtic distributions (negative z-scores of kurtosis).

The definition which received the highest mean score was; "Sociology involves thinking about human action and social structures using a variety of tools" (Table 5.6). Moreover, the z-score of skewness and histogram above, suggest that scores awarded for this definition were very strongly negatively skewed. This means that many of the participants awarded the definition scores close to 10, indicating a very good description of British sociology. The z-score of kurtosis for this definition also suggested that participants' responses adopted a lepokurtic distribution, therefore, demonstrating homogeneity in respondents' scores. This finding aligns with previous studies (Payne et al., 2004; MacInnes et al., forthcoming), which have argued that many working in British sociology *subscribe* to the notion of methodological pluralism. Meanwhile, the definition receiving the lowest mean score was: "Sociology is the scientific study of social aggregations". Participants' scores for this definition were slightly positively skewed, meaning that this definition was generally perceived as a weaker definition of the discipline. This finding may suggest that professional sociologists do not see the approach to sociological research as akin to approaches traditional used in the natural sciences. This result mirrors findings from studies with students (Williams et al., 2008; Williams et al., 2015), which found that undergraduates believed that sociology was humanistic in its approach and endeavour. Scores for the final definition; "Sociology is the study of how we experience life", demonstrated significant negative kurtosis, suggesting that the sample were more divided on their level of agreement with this definition. Generally, definitions which emphasised the study of micro-level social interaction received lower mean scores than those which described the study of macro-social phenomena.

Two-step cluster analysis on the continuous data for the adjectives and descriptors was conducted to see if survey participants fell into discrete groups based on their views of the discipline. The number of clusters was not predetermined.

The silhouette measure of cohesion and separation revealed that two groups of fair quality were produced from entering the adjective variables. Just over 40% of participants fell into the first cluster and approximately 60% fell into the second cluster. Table 5.7 shows the four variables that were most important in determining cluster group membership (the importance of these variables for determining group membership was above 0.8 for each variable). The first cluster gave lower mean scores for each of these adjectives, while the second cluster were more likely to endorse descriptions of British sociology as 'objective', 'problem solving', 'creative' and 'generalisable'.

Table 5.7: Please indicate on the scales below how well you think that the following adjectives describe British sociological research in general, where 1 indicates a very poor description and 10 indicates a very god description

	Cluster 1 'Critique' Approach (40.7%) Mean Score	Cluster 2 'Analytic' Approach (59.3%) Mean Score
Objective	3.56	5.96
Problem Solving	4.26	6.61
Creative	4.54	6.94
Generalisable	4.25	6.22
N	196	285

Broadly, the two clusters mirror the two approaches to sociology in the UK recognised by Williams et al. (2017). Cluster one can be seen as describing 'critique' sociologies giving low scores to adjectives typically associated with scientific research (with possibly the exception of 'creative', however, Osborne and Rose (1999) suggested that creating new phenomena and ideas can be a sign of 'scientificity'). In contrast, the second cluster can be seen endorsing the use of scientific adjectives to describe sociological research and can viewed as 'analytic' sociologists.

Table 5.8: The following definitions of sociological research have been published by sociological associations and professional sociologists. Please indicate on the scales below how representative you think the definitions are of British sociological research, where 1 indicates a very poor description and 10 indicates a very good description

	Cluster 1 Macro (38.7%) Mean Score	Cluster 2 Micro (61.3%) Mean Score
D5: Sociology explores macro-sociological issues such as large social movements, demographics, economics and politics	7.84	4.74
D1: Sociology is the study of how society is organised	7.74	5.09
D7: Sociology involves thinking about human action and social structures using a variety of tools	8.67	6.56
D4: Sociology tells us how society works	7.24	4.54
N	261	414

Similarly, two groups of fair quality were returned from the two-step cluster analysis on the descriptors of British sociology. The descriptors which were most important in determining cluster group membership are shown in Table 5.8. The first group of participants (38.7%) gave higher mean scores for these descriptors while the second cluster (61.3%) gave lower mean scores. The important descriptors in deducing membership all emphasised the

importance of studying macro sociological phenomena and seeking explanations for social structures and divisions. The first cluster of participants placed more importance on the study of macro-phenomena in British sociology in comparison to the second cluster who gave lower mean scores to definitions of British sociology that emphasised the study of social structures and the organisation of society.

Cluster group membership for both the adjective variables and the definition variables were saved as new variables and further bivariate analysis was conducted between cluster group membership and use of quantitative and qualitative research methods in the last year as well as researcher identity.

Surprisingly, those who belonged to the 'analytic' approach to sociology cluster, were more likely to identify as 'qualitative researchers'. Table 5.9 shows that 65.5% of those who endorsed these 'analytic' adjectives were 'qualitative researchers' compared to just over 50% of those who belonged to the 'critique' cluster group. This relationship was statistically significant (x^2=6.23, 2df, p<0.05).

There was a non-statistically significant association between adjective cluster group membership and use of qualitative research methods in the last twelve months. Again, contrary to expectation, those in the 'analytic' cluster were *more likely* to report using 'a lot' of qualitative research methods in the last year (66.7%) than those who belonged to the 'critique' adjective cluster (57.6%).

Contrary to expectation, Table 5.9 demonstrated that those who belonged to the 'analytic' adjective cluster group were less likely to have used 'a lot' of quantitative research methods in the last year than those in the 'critique' adjective cluster. Over 12% of participants in the 'analytic' adjective cluster reported using 'a lot' of quantitative methods in the last year, in comparison to over 16% of respondents belonging to the 'critique' adjective cluster. Similarly, more participants in the 'analytic' adjective cluster compared to the 'critique' adjective cluster stated that they had used 'no' quantitative methods in the last year.

It is possible that these surprising findings could be a result of the wording of the survey question. Participants were asked whether they believed that particular adjectives were 'very poor' or 'very good' descriptors of British sociology. Their views of the discipline as a whole, may not have necessarily reflected their own vision of sociological research and their own research practices. This may go some way toward explaining the disjunction in the findings. Alternatively, it is possible that the cluster definitions are inappropriate. A limitation

Table 5.9: Cluster Group Membership crosstabulated with engagement with research methods (row percentages)

	Researcher Identity			Use Of Qualitative Methods				Use of Quantitative Methods			
	Quantitative (%)	Qualitative (%)	Mixed Methods (%)	A Lot (%)	Some (%)	A Little (%)	None (%)	A Lot (%)	Some (%)	A Little (%)	None (%)
Adjective Cluster											
Critique	**10.4**	**52.9**	**36.7**	57.6	29.0	6.1	7.4	16.5	29.1	20.9	33.5
Analytic	**6.9**	**65.6**	**27.5**	66.7	23.9	6.9	2.5	12.5	25.6	26.2	35.6
Descriptor Cluster											
Micro	8.8	61.5	29.8	**66.9**	**21.8**	**6.4**	**4.9**	16.5	24.7	25.1	33.7
Macro	9.4	54.1	36.5	**51.5**	**35.0**	**6.7**	**6.7**	16.0	31.3	16.0	36.8

Percentages in **bold** indicate statistically significant associations

of cluster analysis is that involves subjective judgements on the part of the researcher(Everitt et al., 2011). These judgements can be influenced by prior knowledge and understanding. As discussed in Chapter Three (Section 12: Analysis of Survey Data), the reliability of the adjective clusters is limited and this may also help toward explaining the surprising results reported here.

Meanwhile, a non-statistically significant association was detected between researcher identity and definition cluster group membership. Those who placed greater importance on the study of macro social phenomenon were more likely to identify as 'quantitative' or 'mixed methods researchers' and less likely to classify themselves as 'qualitative researchers' compared to those who endorsed statements which stressed the importance of exploring micro social interactions in the discipline.

Moreover, Table 5.9 shows that those who fell into the cluster of respondents emphasising the importance of studying macro social phenomena were less likely to have used 'a lot' of qualitative research methods in the last year. In comparison, less than 5% of those belonging to the 'Micro' definition cluster reported using 'no' qualitative research methods in the last twelve months. This relationship was statistically significant (x^2=11.1, 3df,p<0.05).

Those who belonged to the 'micro' definitions cluster were more likely to report using 'very little' quantitative research methods in the last twelve months compared to those in the 'macro' definitions cluster (Table 5.9). While those in the 'macro' definition group were more likely to report using 'some' quantitative methods in the last twelve months than those in the 'micro' definition cluster. These associations were not statistically significant.

Summary:

This section of the analysis has explored the appropriateness of different descriptions of British sociology. Participants were asked to indicate whether they thought a list of adjectives were very good or very poor descriptors of the discipline. High mean scores, which indicated very good descriptors, were awarded by survey participants to adjectives including; *'empirical'*; *'reflexive'* and *'contextual'*. Survey respondents also scored the appropriateness of definitions of sociology which had been published by learned societies or professional sociologists. The definition which received the highest mean score emphasised the *importance of exploring both macro and micro sociological issues using different methods*.

Definitions highlighting the study of the social world at the macro-level, for instance, "Sociology is the study of how society is organised" and "Sociology explores macro-sociological issues such as large social movements, demographics, economics and politics" received slightly higher mean scores than those which emphasised the role of sociological research investigating micro-social processes, for example, "Sociology explores micro-sociological issues such as micro-level human behaviour" and "Sociology is the study of how we experience life". This mirrors the results of the analysis in the previous section, which demonstrated a slight preference for stating macro-sociological research topics as core and important to the discipline. The definition which received the lowest mean score was; "Sociology is the scientific study of social aggregations". This may indicate that participants viewed sociology as *distinct and separate from scientific research*.

Cluster analysis was performed to see if participants fell into distinct groups according to their views of the discipline. The adjective data revealed two groups of respondents; those who endorsed a *'critique' approach* to sociological research and those who endorsed a more *'analytic' approach*. While these two approaches cannot be seen as mutually exclusive, Williams et al. (2017) sketch out the development of these two approaches to highlight some of the historical and contemporary tensions in the discipline. Just over 40% of participants awarded lower mean scores to adjectives such as 'objective' and 'generalisable' (the 'critique' cluster), while the majority of respondents awarded higher mean scores to these adjectives (the 'analytic' cluster).

Bivariate analysis revealed statistically significant associations between researcher identity as a 'quantitative', 'qualitative' or 'mixed methods' researcher and the adjective cluster that they belonged to. For both the 'critique' and 'analytic' cluster groups, participants were most likely to identify as 'qualitative researchers'. Surprisingly, a larger proportion of the 'analytic' cluster compared to the 'critique' cluster identified as 'qualitative researchers'. Moreover, a smaller proportion of participants in the 'analytic' adjective cluster compared to those in the 'critique' cluster identified as 'quantitative researchers'. This surprising result may have been a result of the survey question wording, or could suggest that the cluster names are inappropriate.

Further cluster analysis revealed that survey participants fell into two groups according to the scores which they awarded the different definitions of the discipline. Just under 40% of the survey sample awarded higher mean scores to definitions that emphasised the study of sociology at the macro level. Meanwhile, the second and slightly larger group of participants

awarded lower mean scores to definitions that emphasised the study of macro-social phenomena.

A statistically significant association was found between the definition cluster group which respondents belonged to and participants' reported use of qualitative methods in the last year. In line with existing literature (Kelle, 2005), the respondents who endorsed definitions of sociology that highlighted the importance of researching at the macro-level were more likely than the other cluster of respondents to report using 'no' qualitative methods in the last year. They were also less likely than the second group of participants to report using 'a lot' of qualitative methods in the last year.

Thus, the main findings were;

- *'Empirical' was the adjective which the survey participants awarded the **highest mean score** to, indicating that it was the **best descriptor** of British sociology*
- *Other adjectives which were considered by the sample as **good descriptors** of British sociology included; **'Contextual'**; **'Reflexive'**; **'Theory Driven'** and **'Descriptive'***
- *'Value-free' was the adjective which the survey participants awarded the **lowest mean score** to, indicating that it was the **worse descriptor** of British sociology*
- *Other adjectives which were considered by the sample as **poor descriptors** of British sociology included; **'Artistic'** and **'Value Neutral'***
- *The definition of sociology that received the **highest mean score** and therefore considered the **best definition** by the survey sample was; **'Sociology involves thinking about human action and social structures using a variety of tools'**. This suggests high levels of **support for** the notion of **methodological pluralism***
- *Definitions which emphasised the study of **macro social phenomena** received **slightly higher mean scores** than those which emphasised the study of **micro social phenomena**. However, **significant negative kurtosis** was evident in the distribution of scores given by participants suggesting **little homogeneity** in views*
- *Participants fell into **two groups** according to the **adjectives** which they endorsed as good descriptors of British sociology. The larger group of participants awarded **high mean scores** to adjectives such as **'Objective'**, **'Problem Solving'** and **'Generalisable'** and can therefore be seen as supporting an **'analytical' approach** to sociology. The smaller group, awarded **lower mean scores** to these adjectives and can be seen as endorsing a more **'critique' approach** to sociological research*

- *Surprisingly, respondents belonging to the **'critique' cluster** were statistically significantly **more likely** than those in the **'analytic' cluster** to **identify as 'quantitative researchers'**. They were also **less likely** to identify as **'qualitative researchers'**. This unexpected result could be a consequence of the **survey question wording** or may suggest that the **labelling of the clusters** is inaccurate. Caution over the reliability of these cluster groupings was raised in Chapter Three (Section 12: Analysis of Survey Data). Alternatively, another explanation is possible, hence prompting the need for further research*

- *Participants also fell into **two groups** according to the **definitions** that they endorsed as good descriptors of British sociology. The **larger group** of participants awarded **low mean scores** to definitions that emphasised the **study of macro-sociological phenomena**, meanwhile, the **smaller group** awarded **high mean scores** for these definitions. For instance, the groups gave mean scores of **4.74** and **7.84** respectively for the following definition: **'Sociology explores macro-sociological; issues such as large social movement, demographics, economics and politics'***

- *Respondents who were more likely to endorse definitions emphasising the study of macro-social phenomena (**'macro' cluster'**) were statistically significantly **less likely** to report using **'a lot'** of **qualitative methods** in the last year **compared** to the group that gave these definitions lower mean scores (**'micro' cluster**)*

4. The Third Culture

Some have suggested that the deficit of quantitative work in British sociology could be related to a broader issue of the discipline being viewed as closer to the arts and humanities as opposed to the natural sciences (Williams et al., 2008; 2015; 2017). Sociology's relationship with the natural sciences has been continually debated throughout the development of the discipline (Williams et al., 2017; see Chapter Two: Literature Review). In the previous section of the analysis it was shown that participants were much more divided in their views of how good a descriptor of British sociology the adjective 'scientific' was and the definition 'Sociology is the scientific study of social aggregations'.

Survey participants were asked to indicate on a series of ten-point semantic differential scales whether they saw British sociology as closer to the arts and humanities or the natural sciences for the following variables; Methodology, Analytical Tools, Subject Content, Subject Status, and Public Utility. Figure 5.7 illustrates the distribution of scores that respondents gave each variable. A score of **1** indicates that participants saw sociology as closer to the **arts**

and **humanities** while a score of **10** suggests that they saw the discipline as closer to the **natural sciences**.

Figure 5.7: Please indicate on the following scales how close you see sociology to the arts and humanities or the natural sciences, where 1 indicates closeness to the arts and humanities and 10 indicates closeness to the natural sciences
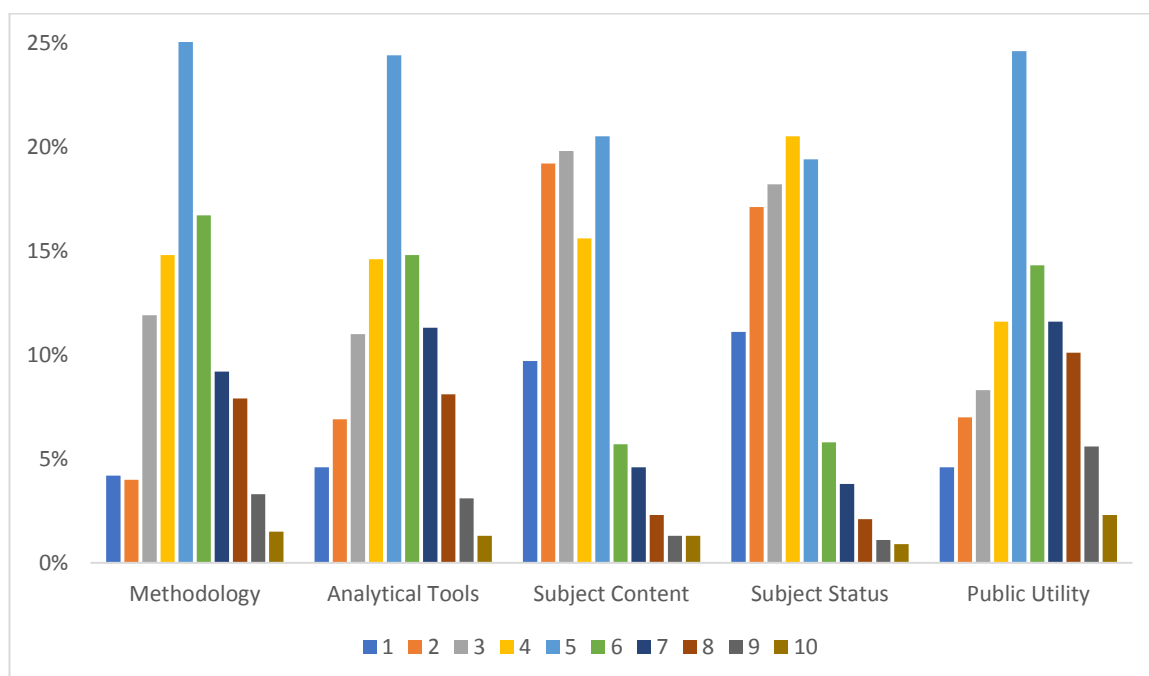
Table 5.10: Please indicate on the following scales how close you see sociology to the arts and humanities or natural sciences, where 1 indicates closeness to the arts and humanities and 10 indicates closeness to the natural sciences. Tables of mean scores.

Variable	Mean Score	Z-Scores of skewness		Z-Scores of kurtosis	
Methodology	5.14	0.51	Normally distributed	-0.73	No kurtosis
Analytical Tools	5.05	0.55	Normally distributed	-1.71	No kurtosis
Subject Content	3.85	6.55	Strong positive skew	2.07	Positive kurtosis
Status	3.75	5.40	Strong positive skew	1.72	No kurtosis
Public Utility	5.33	-0.13	Normally distributed	-2.38	Negative kurtosis

Table 5.10 outlines the distribution of scores given for each of the variables. Overall, participants saw the methodology, analytical tools and public utility of sociological research falling somewhere between that of the arts and humanities and the natural sciences. Meanwhile, with regard to subject content and status, British sociology was seen as closer

to the arts and humanities. Inspecting the histograms in Figure 5.7 and the z-scores of skewness in Table 5.10, it is clear that responses for subject content and status were strongly skewed toward the arts and humanities. Moreover, significant positive kurtosis was detectable for the scores given to 'subject content' suggesting relative consensus among the sample that the subject content of British sociology is more strongly allied with the arts and humanities than the natural sciences. Meanwhile, a normal distribution of scores was found for 'methodology'; 'analytical tools', and 'public utility'.

Table 5.11: Please indicate on the following scales how close you see sociology to the arts and humanities or natural sciences, where 1 indicates closeness to the arts and Humanities and 10 indicates closeness to the natural sciences. Aggregated responses (row percentages)

	Arts and Humanities (%)	Mid (%)	Natural Sciences (%)
Methodology	34.8	43.3	21.9
Analytical Tools	37.1	39.2	23.8
Public Utility	31.5	38.5	29.6
Status	66.9	25.2	7.9
Subject Content	64.3	26.2	9.5

Table 5.11 presents an aggregation of the scales. Once aggregated, it is clear that the participants felt strongly that the status and subject content of sociology was much closer to the arts and humanities than the natural sciences. Some qualitative comments reinforced this, for example:

> "I feel sociology has still quite a lot to learn from the humanities, and that it should probably give up its sense of inferiority vis-à-vis the natural sciences or 'harder' social sciences (e.g. economics)." *(Qualitative Researcher, Male, Lecturer or Equivalent, Aged 18-34)*

Further comments given by respondents positioned sociology's status and utility in relation to the natural sciences in a manner reminiscent of Comte's hierarchy of sciences:

> "We have to be methodologically more sophisticated than our Natural Science colleagues because our theory and our data are connected in more complex ways. However we enjoy low status for the methods we use in spite of the high public utility which remains largely unrecognised (or repudiated/rejected)" *(Mixed Methods Researcher, Male, Professor/Reader, Aged 55+)*

Comte argued that sociology occupied the apex of a hierarchy of sciences, with which each level increased with complexity but decreased in generality (Giddens, 1979; Chapter Seven;

Swingewood, 1991; Chapter Two). Reinforcing the uniqueness of sociological research and its separation from other science disciplines, one participant stated:

> "[…] sociologist/policy makers should be cautious not to convert the discipline into a pretentiously mathematical mumbo-jumbo which by and large economics is. If mathematics is the hallmark of 'scientific' disciplines, I would rather unpretentiously declare sociology as an art than introducing pretentious 'fat/thin tailed statistical tests' into it." *(Male, Postgraduate, Aged 18-34)*

Cluster analysis was performed on the continuous variables to see if participants fell into groups according how close they saw sociology to the natural sciences and the arts and humanities. This cluster analysis returned three groups of fair quality. Table 5.12 lists the mean scores for each variable given by each cluster of participants. The variables are listed in Table 5.12 in the order of importance in determining cluster group membership.

26.7% of the participants fell in the first cluster which can be described as a group who saw sociology as more akin to the arts and humanities. Cluster 2, the largest cluster (57.7%), represented those who saw sociology as somewhere between the arts and humanities and the natural sciences, while cluster 3, contained just 15.6% of the participants representing the minority of participants, who saw sociology as closer to the natural sciences. Consistently, each group placed sociology closer to the arts and humanities than the natural sciences in respect of subject content and status.

Table 5.12: Please indicate on the following scales how close you see sociology to the arts and humanities or natural sciences, where 1 indicates closeness to the arts and humanities and 10 indicates closeness to the natural sciences

	Cluster 1 Arts and Humanities (26.7%) (Mean Score)	Cluster 2 Mid (57.7%) (Mean Score)	Cluster 3 Natural Sciences (15.6%) (Mean Score)
Status	2.83	5.30	7.90
Methodology	3.16	5.31	7.89
Public Utility	3.56	5.52	7.66
Subject Content	2.30	4.12	5.56
Status	2.40	3.94	5.37
N	121	262	71

Cluster group membership was saved as a new variable and bivariate analysis was conducted to see if there were any statistically significant associations between how close participants viewed sociology to the arts and humanities or the natural sciences and their level of

engagement with quantitative methods. Table 5.13 shows that there was a statistically significant association between cluster group membership and the type of researcher that a participant primarily identified as (x^2=10.69, 4df., p<0.05). Those that belonged to the 'arts and humanities' cluster were less likely than those in the 'mid' and 'natural science' clusters to identify as 'quantitative researchers'. 68.1% of the respondents in the 'arts and humanities' cluster classified themselves as 'qualitative researchers' compared to 48.5% of participants who belonged to the 'natural science' cluster. Meanwhile, the 'mid' cluster had the highest proportion of respondents identifying as 'mixed methods researchers'. While the modal response for each group was 'qualitative researcher', the distribution of respondents according to cluster group membership suggests that those who viewed the discipline as more humanistic were statistically significantly *more likely* to classify themselves as a 'qualitative researcher' while those who viewed the discipline as more akin to the natural sciences were statistically significantly *more likely* to classify themselves as quantitative researchers.

Those who fell into the cluster of respondents that saw the discipline as closer to the arts and humanities were more likely to have reported using 'a lot' of qualitative methods in the last twelve months (See Table 5.13). Conversely, 4.5% of those belonging to the 'natural sciences' cluster reported using 'no' qualitative methods in the last year compared to 5.3% of those in the 'arts and humanities' cluster and 6.2% in the 'mid' cluster. However, the cell count was too low to deduce whether there was a statistically significant association between use of qualitative methods in the last year and cluster group membership.

Finally, a non-statistically significant association was found between cluster group membership and use of quantitative methods in the last year (see Table 5.13). The 'natural sciences' cluster contained participants who were more likely to have reported using 'a lot' of quantitative methods in the last year than the 'mid' or 'arts and humanities' clusters. Equally, the 'arts and humanities' and 'mid' clusters had higher proportions of respondents reporting that they had used 'no' quantitative methods in the last year.

Table 5.13: Arts and humanities versus natural sciences crosstabulated with engagement with research methods (row percentages)

	Researcher Identity			Use of Qualitative Methods				Use of Quantitative Methods			
	Quantitative (%)	Qualitative (%)	Mixed Methods (%)	A Lot (%)	Some (%)	A Little (%)	None (%)	A Lot (%)	Some (%)	A Little (%)	None (%)
Arts and Humanities	**5.3**	**68.1**	**26.5**	71.7	17.7	5.3	5.3	12.4	23.0	21.2	43.4
Mid	**9.8**	**54.7**	**35.5**	53.5	33.7	6.6	6.2	15.2	29.6	21.0	34.2
Natural Sciences	**16.2**	**48.5**	**35.3**	59.1	25.8	10.6	4.5	27.3	25.8	21.2	25.8

Percentages in **bold** indicate statistically significant associations

Summary:

The analysis in this section has shown that for most indicators (methodology, analytical tools and public utility), participants saw sociological research as falling somewhere between the approaches used in the arts and humanities and those employed in the natural sciences. Meanwhile, the mean scores awarded for the subject content and status of sociology suggested that participants viewed sociology as more akin to research in the arts and humanities for these two measures.

Cluster analysis revealed that respondents fell into three groups of fair quality according to their responses to these questions. The *majority* belonged to the cluster who saw sociological research as mid-way between the arts and humanities and the natural sciences. More than a *quarter* of the participants belonged to the group who viewed sociological research as more akin to that conducted in the *arts and humanities*. Finally, approximately *15%* of the sample fell in a group of participants who saw sociological research as akin to research in the *natural sciences*.

Cluster group membership shared a statistically significant association with researcher identity. The *'natural science' group* had the greatest proportion of participants who identified as *'quantitative researchers'* and the smallest proportion of 'qualitative researchers'. By contrast the *'arts and humanities'* cluster had the greatest proportion who identified as *'qualitative researchers'*.

Therefore, the main findings are:

- *Participants saw sociology as closer to the **arts and humanities**, most notably according to **subject content** and discipline **status***

- *Cluster analysis revealed **three groups** of participants. The smallest group contained **15.6%** of participants. These participants were more likely to see sociology as **closer** to the **natural sciences**. The next group contained **26.7%** of participants. These participants were more likely to see sociology as **closer** to the arts **and humanities**. The final and **largest group**, represented participants who saw sociology as **mid-way** between research in the arts and humanities and the natural sciences. This large group of respondents who saw sociology as mid-way between the arts and humanities and the natural sciences may provide support for the concept of a 'third culture' existing*

- ***Researcher identity*** *as a 'quantitative', 'qualitative' or 'mixed methods researcher' shared a* **statistically significant association** *with cluster grouping.* **More 'quantitative researchers'** *could be found in the group of participants who saw sociology as closer to the* **natural sciences***, while,* **more 'qualitative researchers'** *could be found in the group of participants who saw sociology as closer to the* **arts and humanities**

5. Chapter Discussion and Summary

This chapter aimed to investigate whether sociologists in the UK have the necessary interest and methodological expertise to answer research questions at both the macro and the micro level. There was a preference among survey respondents to research micro sociological topics, despite often reporting macro sociological topics as core to their discipline. It is possible that this difference in research areas investigated and perceived as core to the discipline, has come about as a result of a shift toward studying macro-sociological issues at the micro-level.

Analysis of survey participants' level of support for using particular adjectives to describe British sociology showed that respondents fell into two clusters. These clusters could represent participants who adopted a 'critique' or a more 'analytic' approach to studying the social world. While these approaches to studying the social world cannot be seen in complete opposition or mutually exclusive, they do represent underlying tensions in the discipline surrounding the nature of social research. Williams et al., (2017: 5) argued that the extreme forms of these approaches, "[…] have taken root in student perceptions of what sociology is".

Participants seemed to agree that most of the statements describing British sociology were good descriptors of the discipline. Analysis showed that the participants fell into two clusters based on their level of agreement with these descriptors. Mean scores for the statements that emphasised the importance of investigating macro sociological topics were most dominant in determining group membership. Similar to previous studies, the analysis showed that participants were more likely to view sociology as closer to the arts and humanities with regard to subject status and subject content.

A limitation of the analysis presented here was the use of semantic differential scales. It is possible that the clusters derived from the data may simply have represented those who gave scores higher or lower than the median value. Secondly, some of the respondents were

particularly dissatisfied with the semantic differential scales that asked them to decide where sociology fell in relation to research conducted in the arts and humanities and the natural sciences. For instance, participants stated:

> "I can't answer the above because it appears to assume that arts and humanities are somehow the opposite of natural sciences - e.g. what if you think that both have equal public utility? That doesn't necessarily mean that sociology is half way between the two in terms of utility." *(Qualitative Researcher, Female, Professor/Reader, Aged 55+)*

> "I do not agree with the kind of dichotomy set up in this question; the answer probably depends on the types of research, as sociology is a very broad field of study" *(Mixed Methods Researcher, Female, Lecturer, Aged 55+)*

These questions were replications from previous studies (Williams et al., 2008; 2015) exploring students' views of the discipline and were included in the survey to enable some comparisons. However, it is possible that the dichotomy was not sufficiently nuanced for professional sociologists.

Having said this, the extent to which this criticism can be accepted must be reflected upon. The dichotomy of the natural sciences versus the arts and humanities has become well recognised and used. For instance, during his 1959 Rede Lecture at the University of Cambridge, C.P Snow presented the arts and humanities and the natural sciences as two opposing polemic cultures (Halsey, 2004: Chapter One; Halsey, 2005: Chapter Two; Kagan, 2009: Chapter One; Eldridge, 2014: Chapter Three; See discussion in Chapter One). Snow wished to emphasise the importance of science curriculum in a rapidly industrialising society and subsequently made the case for more time to be devoted to science than the arts and humanities. Even earlier in the 1800s, the *Methodenstreit* (methods debate) between the Austrian School of economics and the German School of economics was due to the two schools having opposing views on how to study social phenomena (Bostaph, 1978). The Austrian School advocated adopting a natural science method while the German School were critical of this approach and argued for the discipline to be more humanistic in its approach and endeavour.

Overall, the analysis presented here suggests that participants fell into discrete groups based on their views of the discipline. The groups created through the cluster analysis were saved as new variables to be used in the analysis presented in the following chapters.

The next chapter will explore the future of the discipline and specifically ways in which the participants believed that the discipline would need to change in order to have greater impact. Additionally, the chapter draws on the views of the youngest respondents and those at the most junior positions to enable some consideration of the future status and direction of discipline.

Chapter 6 : Purpose and Future Direction of British Sociology

"When I give my judgement on British sociological research I take into account: / 1. the poor visibility of this discipline, and hence it attractiveness for future potential bright students. / 2. the poor link that exists between policy makers and sociologists. Not systematic but rather sporadic. / 3. the poor training on methods and theory. And the reduced chances for interdisciplinary research. Young sociologists are often not able to cooperate with other disciplines which are more likely to attract funding"

(Mixed Methods Researcher, Male, Professor/Reader, Aged 55+)

Research question(s) addressed in this chapter:

R.Q 3: *Is a resistance toward quantitative research methods and skills in British sociology undermining the discipline's status?*

1. Introduction

Behind the calls for a more methodologically pluralistic discipline, is the belief that sociology is losing jurisdiction over research topics or areas traditionally considered sociological (Payne, 2007). This situation has been exacerbated in the twentieth and twenty-first centuries with the rise of researchers outside academia investigating and commenting on social behaviour (Savage and Burrows, 2007; 2009).

The findings from the previous chapters suggest a preference in British sociology to use qualitative research to investigate micro sociological topics. Therefore, this chapter first seeks to investigate the extent to which sociologists believe that their discipline is losing ground to other disciplines and researchers outside of academia. It uses both quantitative and qualitative data to explore how the UK survey participants envisaged the future direction of the discipline, especially in light of increasingly tight research budgets and audit culture in British academia.

In an attempt to investigate the future direction of British sociology, this chapter then goes on further to explore the research practices of the survey sample according to age and seniority as well as the practices of those academics who held teaching contracts in comparison to those who did not teach at all.

2. Stuck in the Mud Versus Back to Basics: The Purpose of British Sociology

Survey participants were asked whether they believed that other academic disciplines were doing research in areas previously seen as the research areas of sociology. Table 6.1 shows the majority of the participants (70.0%) thought that this was 'definitely' the case. Almost a further quarter (23.8%) felt this was 'probably' the case. A small percentage (4.2%) were 'uncertain' whether other academic disciplines were doing research in areas previously seen as the research areas of sociology, while only 2.0% thought this was 'probably not' happening. None of the respondents reported that this was 'definitely not' the case.

Respondents also indicated whether they believed ideas from sociology were being used in other academic disciplines (See Table 6.1). The modal response was 'definitely'. 63.8% of respondents thought that ideas from sociology were 'definitely' being used in other disciplines. Just under a quarter (23.7%) of the participants thought this was 'probably' the case. A further 5.8% were 'uncertain' as to whether ideas from sociology were being in other disciplines. 5.6% of the participants thought that ideas from sociology were 'probably' not being used in other disciplines and only 1.0% of the participants believed this was 'definitely not' the case.

Table 6.1: Do you believe that other academic disciplines are doing research previously seen as the research areas of sociology? To what extent do you believe that sociology is being exported to other disciplines?

	Previously Sociology (%)	Other Disciplines (%)
Definitely	70.0	63.8
Probably	23.8	23.7
Uncertain	4.2	5.8
Probably Not	2.0	5.6
Definitely Not	0.0	1.0
N	496	497

The qualitative comments provided by the respondents supported the quantitative findings, prompting wider discussion about sociology's status as a discipline, particularly in comparison with economics and psychology. Economics and psychology were often seen as adopting distinct approaches to social research which afforded them greater autonomy in relation to policy and practice:

> "Economists and psychologists are entering core sociological fields because British sociology is so shockingly awful and incapable of providing reliable evidence on important social issues." *(Quantitative Researcher, Male, Professor/Reader, Aged 45-54)*

"Sociology as an 'academic subject' in the future is likely to splinter off and merge with departments of other disciplines e.g. economics. If we can't arbitrarily prove 'value for money' and 'impact' eventually our discipline is bound to evaporate (I am pessimistic)" *(Qualitative Researcher, Female, Postgraduate, Aged 18-34)*

Respondents also agreed that sociology was losing jurisdiction to social researchers outside of academia. For instance, a participant stated the following:

"[…] it is hard to know why a sociologists' opinion ought to matter more than those of the statisticians at the ONS, civil servants, economists and other bodies who already advise the government on matter of policy" *(Quantitative Researcher, Male, Postgraduate, 18-34)*

These negative comments and the data summarised in Table 6.1, suggest greater support for the second (pessimistic) view of sociology offered by John Urry (Scott, 2005). In the early 1980s, during the British Sociological Association conference, Urry described how the status and nature of the discipline could be viewed in two opposing ways. On the one hand, sociology could be seen as the superior discipline or the 'queen of sciences' as argued by Comte, (Giddens, 1979; Chapter Seven; Swingewood, 1991; Chapter Two) that brought together ideas from the different social science disciplines and branches of enquiry found in economics, geography and politics. On the other hand, sociology could be seen as having lower disciplinary status than other social science disciplines, and subsequently only able to investigate areas that were not of interest to other subjects. As a result of either of these two interpretations, British sociology was presented as having no coherent core and as being a rather fragmented discipline.

Participants also commented on this loss of disciplinary autonomy over the exploration of particular social issues and the fragmented nature of the discipline:

"Sociology has fragmented into a variety of sub-disciplines […] This is partly the fault of sociologists who have indulged in self-absorbed postmodern navel gazing for many years at the expense of real engagement with dynamics of social change […]" *(Mixed Methods Researcher, Male, Senior Lecturer or Equivalent, Aged 45-54)*

"The problem it [sociology] has […] is the tendency towards narrow sub-disciplinary methodological channels" *(Quantitative Researcher, Male, Senior Lecturer, Aged 35-44)*

There was a sense among participants that to secure the future of the discipline it was necessary to go 'back to basics'. Indeed, one respondent stated that at present there was:

"[...] too much stress on trendy innovations and less regard for the basics" *(Qualitative Researcher, Female, Professor/Reader, Aged 55+)*

Conversely, others criticised sociology for becoming dated and not fit for purpose:

"British sociology is inaccessible and increasingly irrelevant" *(Qualitative Researcher, Female, Professor/Reader, Aged 55+)*

"[…] it is in major crisis as it is like a dinosaur and has not adapted to the changing social world" *(Qualitative Researcher, Female, Professor/Reader, Aged 55+)*

"Society has changed, so much so that in focusing on the old, we are stagnating the new! By doing so I believe we are alienating others, who are somewhat put off by the language used, theories and so dismiss sociological theory, and conceptions of the world as boring" *(Quantitative Researcher, Female, Postgraduate, Aged 18-34)*

Participants highlighted how the approaches employed by sociologists to study the social world were often unsuitable to investigate and explain present day society:

"[…] the methods are not very creative or artistic but conventional and stuck in the mud!" *(Qualitative Researcher, Female, Professor/Reader, Aged 55+)*

Equally, while not prompted to do so, another respondent identified the lack of quantitative methods in British sociology as being somewhat responsible for the decline in the discipline's status:

"It needs to pay far more attention to some of the basics of careful measurement, description and generalisation alongside analysis and theory." *(Quantitative Researcher, Male, Professor/Reader, Aged 55+)*

It was also noted that the move toward improving the quantitative skills of sociology students was one possible way toward helping sociologists reclaim their power to explore these social issues and to inform policy and practice:

"The recent move to set up 'Q-Step centres' appears welcome: it's a good move if the intention of designers was/is to make sociology somewhat at par with economics." *(Male, Postgraduate, Aged 45-54)*

Reinforcing these concerns, Table 6.2 shows that the largest proportion (41.3%) of respondents reported that British sociology was 'somewhat' in decline as an academic discipline. A minority (8.9%) agreed that the discipline was 'very much' in decline, a further

13.2% stated there had been 'much' decline in British sociology, almost one quarter (23.8%) stated there had been 'not much' decline and 13.0% stated that there had been 'no' decline at all.

Table 6.2: To what extent do you believe that British sociology is in decline as an academic subject?

	Decline (%)
Very Much	8.9
Much	13.2
Somewhat	41.3
Not Much	23.8
Not At All	13.0
N	463

Respondents frequently cited economic reasons for their pessimistic views about the decline of the discipline and demonstrated an awareness of the international context of British sociological research. For instance:

"After Brexit, all disciplines will likely be affected by funding problems. I don't think sociology in general is in decline, but British sociology in particular is likely to soon be so." *(Qualitative Researcher, Female, Postgraduate, Aged 18-34)*

Inglis (2014: 102) summarised this by stating:

as a matter of basic survival in a hostile environment […] more emphasis is put on the utility of research for contemporary pragmatic purposes.

Table 6.3: How important do you think it is to consider the following before starting research? Column Percentages

	Economic (%)	Policy (%)	Media (%)	Yourself (%)	Users (%)	Participants (%)
Not at all important	12.3	3.8	6.7	4.2	3.8	1.3
Not very important	20.8	7.7	17.1	11.1	6.9	1.9
Neither important nor unimportant	29.4	12.9	27.5	18.8	11.9	5.4
Important	29.4	44.4	37.9	42.9	43.3	31.4
Extremely important	7.3	30.2	10.0	21.8	33.1	57.9
I do not undertake research	0.8	1.0	0.8	1.3	1.0	2.1
N	472	471	470	469	473	469

Indeed, most of the respondents reported that it was 'important' or 'extremely important' to consider the economic, policy and media implications of their research as well as the potential implications for themselves and users of research before commencing a research

project (Table 6.3). The majority (57.9%) stated that it was 'extremely important' to consider the potential impacts of research on participants at the start of a research project.

Table 6.4: How important is it that British sociological researchers disseminate their work to the following groups? Column Percentages

	Government (%)	Businesses (%)	Charities/NGOs (%)	Media (%)	Public (%)
Not at all important	0.6	5.4	0.6	1.1	0.2
Not very important	2.8	11.1	1.5	4.9	1.3
Neither important nor unimportant	9.2	29.8	9.6	11.5	6.4
Important	47.4	42.4	51.9	59.8	46.8
Extremely important	40.0	11.3	36.3	22.6	45.3
N	468	467	468	468	468

Likewise, Table 6.4 shows that most of the respondents believed it was 'important' to disseminate findings of their research to the public, charities/NGOs, Government, the media and businesses.

Table 6.5: How important is it that the UK Government appoints a chief social science advisor to ensure that it is fully informed about the social implications and impacts of new policies?

	Chief Social Science Advisor (%)
Not at all important	4.0
Not very important	7.2
Neither important nor unimportant	14.4
Important	40.1
Extremely important	34.2
N	471

Respondents were also asked whether they thought it would be beneficial to appoint a chief social science advisor to the Government to help inform the Government on the implications and impacts of new policies (Table 6.5). This question was included to measure, and encourage comments on, the extent to which sociological research can and should inform policy and practice.

While most (74.3%) of participants agreed that it was 'important' or 'extremely important' to appoint a chief social science advisor, many had concerns over the extent to which the Government would welcome and respond to a chief social science advisor. Interestingly, for this project, one respondent stated the case for *qualitative research* to be used more extensively to help the Government to make policy decisions:

"I think the Government […] needs a large department doing qualitative research in each area." *(Qualitative Researcher, Female, Lecturer or Equivalent, 45-54)*

The qualitative comments suggested scepticism over the value placed on sociological, and more broadly, social research by the Government. Again, the responses stressed how tightening of research budgets meant that sociological research was often side-lined:

"I feel that this government is very uninterested in social science and sociology, and has an unhelpfully utilitarian approach to any kind of research […] I would love there to be a space for research that is open to possibility, including failure, that is speculative, long term […] there is little funding for this and little commitment from the Government for this time of research." *(Qualitative Researcher, Female, Lecturer or Equivalent, Aged 18-34)*

Summary:

The data demonstrates concerns among the survey participants that sociology as an academic discipline is in *decline*. The majority (93.8%) of the sample believed that other disciplines were 'probably' or 'definitely' doing research in areas previously seen as the research areas of sociology. Almost 90% also stated that sociology was 'probably' or 'definitely' being *exported to other disciplines*. Psychology and economics were listed as possible disciplines where sociological research was now being undertaken. Overall, 63.4% of the sample believed that the discipline was at least 'somewhat' in decline. Only 36.8% reported that the discipline was either not declining or not declining much.

There was a divide among participants as to the best approach for sociology to regain its status and autonomy. Some called for a *'move back to basics'* while others were more concerned with *innovative, creative approaches* deemed more appropriate to studying present day society. A few participants did in fact blame the lack of engagement with quantitative methods in British sociology for the disappearance and marginalisation of the discipline.

This reported decline in the discipline, was often attributed to *lack of resources* and therefore respondents emphasised the *pragmatic purposes of research*. Indeed, 36.7% agreed that it was 'important' or 'extremely important' to consider economic factors prior to commencing a research project. Almost 75% stated that it was 'important' or 'extremely important' to consider policy implications before starting a research project. Similarly, almost half of the

respondents agreed it was 'important' or 'extremely important' to consider media impacts before commencing a project.

Dissemination of research findings was also considered 'important' or 'extremely important' by many of the participants. Over 90% of the sample stated that it was either 'important' or 'extremely important' to disseminate research to the public and 87.4% also agreed it was 'important' or 'extremely important' to disseminate work to Government. 88.2% and 82.4% believed it was 'important' or 'extremely important' to disseminate to charities/NGOs and media respectively while over half of participants believed it was 'important' or 'extremely important' to disseminate to businesses.

Three quarters of respondents supported the idea of a chief social science advisor to ensure that the UK Government was fully informed about the social implications and impacts of new policies. There was an overall impression that, at present, the Government disregarded sociology and findings from sociological research.

In summary, the analysis has shown that:

- *70% of participants thought **other academic disciplines were researching topics** previously deemed research areas of sociology. **None** of the respondents stated that this was **'definitely not'** not the case*
- *Almost **90%** believed that sociology had been **exported to other disciplines***
- *In particular, participants believed that **economics** and **psychology** were using ideas from sociology. In some cases, respondents stated that economists and psychologists were **more rigorous** than sociologists in their approach to studying the social world*
- *Others noted that bodies including the **Office of National Statistics** were increasingly **informing the Government** on social issues*
- *Some respondents called for a move **'back to basics'** to ensure the survival of the discipline, while others criticised sociology for being **'stuck in the mud'***
- *One participant stated that the push to **increase the quantitative methods** training provision in British sociology could help the discipline **regain** its status and autonomy*
- *Over **30%** of participants believed that the discipline was either **'much'** or **'very much'** in **decline** and a further **41.3%** believed it was **'somewhat'** in **decline**. Meanwhile, approximately **one quarter** believed it was **'not much'** in decline and just **13%** stated it was **'not' declining** at all*

- *The **majority** of participants believed that it was **'important'** to consider **economic factors**, **policy**, **media**, **themselves** and **potential users** of research before starting a research project*

- *The **majority** of participants believed that it was **'extremely important'** to consider impacts of research on **participants** before starting a research project*

- *Respondents emphasised the importance of disseminating research findings to different stakeholders. **92.1%** believed it was **'important'** or **'extremely important'** to **disseminate findings to the public** and **88.2%** reported it was **'important'** or **'extremely important'** to disseminate research to **charities/NGOs**. Fewer participants (**53.7%**) stated that it was **'important'** or **'extremely important'** to disseminate work to **businesses***

- *There was a lot of **support** among the survey participants for a c**hief social science advisor** to help the Government. Overall, participants believed that, at present, the **Government disregarded sociological research***

3. Sociological Research in the Future

This section of the analysis seeks to explore the research practices and beliefs about the nature of sociological research among certain members of the survey sample to allow tentative inferences regarding the future direction of the discipline to be made. The analysis will explore associations between the following key variables: Age; Seniority, and Employment Function and the following dependent variables: Researcher Identity; Summarised Research Area; Summarised Core Discipline Research Area; Arts, Humanities and Science Cluster Membership; Adjective Cluster Membership, and Descriptor Cluster Membership. A full list and description of these variables can be found in Appendix 4.

There are growing concerns over the ageing demographic profile of British sociology and the discipline's ability to recruit new undergraduate students (Mills et al., 2006). Higher Education Statistics Agency (HESA) data from 2005/6 showed that over 40% of academic staff working in British sociology were over the age of 50 and more than 20% were over the age of 55. At the same time there was a low proportion of under 35s teaching and researching in the discipline in comparison to both natural sciences and other social science disciplines (Wakeling, 2009; Mills et al., 2006). HESA data also showed that between 2002/3 and 2006/7 the number of home undergraduate full-time person equivalents studying sociology decreased from 22,700 to 21,775. The discipline has seen a slightly higher than average number of applicants being recruited via the UCAS clearing process (approximately 1,000

students) therefore, potentially, limiting the quality of the student intake. At the postgraduate level, a similar decline can be seen in the number of doctorates awarded in the discipline and a trend for those who do pursue a sociology PhD to leave academia upon graduation. Over 30% of PhD graduates reported entering work in non-academic settings after completing their PhD (Wakeling, 2009). Mills et al. (2006) suggested that potential future academic sociologists are less likely to pursue a career in the discipline nowadays due to increasingly poor working conditions and salaries. This has led to escalating concerns over the sustainability of the discipline and in particular, the provision of high quality research and teaching in the discipline.

Table 6.6 shows the key demographic variables for the UK sample. The age profile of the survey respondents was fairly evenly distributed across the different categories. Similar to previous analysis (Mills et al., 2006), just over 20% of the participants reported being aged 55 or over, but contrary to existing concerns over the ageing demographic profile of British sociology, most of the survey participants (30.2%) reported being aged 18-34. As explained in Chapter Three, the permissive age band of '18-34' was necessary to enable demographic data to be collected on student British Sociological Association (BSA) members. With regard to seniority, similar proportions of respondents reported being at each different level of seniority. The modal response was 'Lecturer or equivalent'. The majority of respondents held 'Research and Teaching Contracts' employment contracts. Because of the low number of respondents with 'Research Only' or 'Neither Research or Teaching' employment contracts it was decided to compare the views of those who did have some teaching responsibilities with those who did not. This recoding of the data enabled insights to be made as to the nature, range and scope of sociology presented to students by teaching staff.

Table 6.6: Key demographic Variables for the UK Sample

	Frequency (%)
Age	
18-34	30.2
35-44	25.1
45-54	22.7
55+	22.0
Seniority	
Professor/Reader	24.9
Senior Lecturer or Equivalent	24.0
Lecturer or Equivalent	28.4
Postgraduate	22.7
Employment Function	
Research Only	18.2
Teaching Only	3.7
Research and Teaching	74.5
Neither Research or Teaching	3.7

3.1 Age

Chapter Four highlighted that age was a statistically significant predictor of usage of quantitative methods in the last twelve months and whether a participant identified as a 'quantitative', 'qualitative' or 'mixed methods' researcher. This analysis showed that as age increases, the percentage of respondents identifying as either a purely 'quantitative' or 'qualitative' researcher decreases. At the same time, the percentage of 'mixed methods researchers' increases.

It could be that with greater experience in the discipline, researchers are more likely to have been exposed to a greater variety of methods and approaches. Equally, it could be that older researchers have greater autonomy and therefore are less concerned with current institutional or wider pressures to specialise or to engage with quantitative methods than younger respondents. The higher proportions of participants classifying themselves as 'quantitative researchers' among the youngest respondents may suggest that earlier initiatives implemented to increase quantitative methods skills of students are having some effect on their research practices. In the early 2000s research methodology became a

Table 6.7: Which areas of sociology best characterise your work? Please give four examples, listed in order of importance

	Research Areas							
	18-34		**35-44**		**45-54**		**55+**	
	Research Area	**Frequency (%)**	**Research Area**	**Frequency (%)**	**Research Area**	**Frequency (%)**	**Research Area**	**Frequency (%)**
1st	Social Cohesion, Diversity & Inequalities	16.3	Social Cohesion, Diversity & Inequalities	18.0	Social Cohesion, Diversity & Inequalities	21.8	Health & Medicine	14.1
2nd	Race, Ethnicity & Migration	10.4	Health & Medicine	8.1	Race, Ethnicity & Migration	9.9	Social Cohesion, Diversity & Inequalities	12.1
3rd	Health & Medicine	8.9	Race, Ethnicity & Migration	7.2	Gender & Sexuality	8.9	Race, Ethnicity & Migration	10.1
N	135		111		101		99	

Table 6.8: Which areas do you see as core to sociology? Please give four examples, listed in order of importance

	Core Research Areas							
	18-34		**35-44**		**45-54**		**55+**	
	Core Area	**Frequency (%)**	**Core Area**	**Frequency (%)**	**Core Area**	**Frequency (%)**	**Core Area**	**Frequency (%)**
1st	Social Cohesion, Diversity & Inequalities	25.0	Social Cohesion, Diversity & Inequalities	23.6	Social Cohesion, Diversity & Inequalities	27.5	Social Cohesion, Diversity & Inequalities	40.4
2nd	Race, Ethnicity & Migration	14.7	Race, Ethnicity & Migration	17.3	Work & Employment	13.7	Race, Ethnicity & Migration	10.1
3rd	Work & Employment	11.8	Work & Employment	11.8	Race, Ethnicity & Migration	7.8	Identity	6.1
							Power	6.1
N	136		110		102		99	

strategic focus for the ESRC and later, in 2002 the ESRC launched the Research Methods Programme (ESRC Timeline Webpage, 2015) aimed at ensuring that research produced in all social science disciplines was of a high quality. This, along with more recent pedagogic interventions to increase the quantitative skills of social science students, would have impacted on the training that the youngest two age cohorts in the survey received. If this is the case, it would suggest that pedagogic interventions have the possibility of reversing the number deficit in British sociology. Conversely, younger participants may engage more with quantitative approaches and be more critical of statistics as a possible product of being part of a new 'digital data' generation.

The most frequently cited research areas were fairly consistent among the different age cohorts. For all age groups, except those aged 55 and over, most of the respondents researched 'Social Cohesion, Diversity and Inequalities' (Table 6.7). The same three research areas; 'Social Cohesion, Diversity and Inequalities', 'Race, Ethnicity and Migration' and 'Health and Medicine', were reported with the greatest frequency across all the different age groups apart from the 45-54 year age cohort, where 8.9% reported researching 'Gender and Sexuality'.

While each age group frequently stated 'Social Cohesion, Diversity and Inequalities' and 'Race, Ethnicity and Migration' as core to the discipline, for no age cohort was 'Health and Medicine' one of the three most commonly listed research areas as core to the discipline (Table 6.8). This is despite the fact that for the majority of the age cohorts, 'Health and Medicine' was one of the top three most frequently reported *own areas* of research. Rather, the modal response across all the age cohorts for the research area core to British sociology was 'Social Cohesion, Diversity and Inequalities'. It is possible that respondents intended for this broader research area to subsume health inequalities within it and therefore explaining some of the discrepancy between own research areas and areas seen as core to the discipline. Over 40% of the eldest respondents in the study stated that 'Social Cohesion, Diversity and Inequalities' was core to British sociology in comparison to just a quarter of the youngest participants. In addition, while 'Power' and 'Identity' featured on the list of core discipline research areas for the eldest cohort they were not reported as frequently by the younger cohorts, suggesting a possible decline in younger scholars' attachments to these topics.

Using the clusters created in Chapter Five, Table 6.9 shows that for all age categories, the modal group saw sociology as mid-way between the arts and humanities and the natural

sciences. Approximately, for each age group, one quarter of respondents belonged to the cluster of participants who viewed sociology as closer to the arts and humanities. Interestingly, the youngest respondents, aged 18-34, were the age group with the largest proportion of participants belonging to the group that saw sociology as closer to the natural sciences.

Further to this, for all age cohorts, apart from the participants aged 35-44, the majority of respondents belonged to the cluster of respondents who gave higher mean scores to adjectives not typically associated with scientific research ('critique' adjective cluster) (See Table 6.9). The respondents in the 35-44 age group, were marginally more likely to belong to the group that endorsed the use of scientific adjectives ('analytic' adjective cluster) to describe British sociology.

In the previous chapter, the analysis demonstrated that participants fell into two groups according to the definitions that they believed effectively described British sociology. The larger group of participants gave higher mean scores to statements which emphasised the importance of researching micro sociological phenomena, while the second, smaller cluster of participants were more likely to endorse statements emphasising the importance of studying macro sociological phenomena. Table 6.9 shows that older participants were more likely to fall into the 'macro statement' cluster. Approximately one quarter (27.3%) of those aged 18-34 belonged to the 'macro statement' cluster in comparison to just over half (54.8%) of those aged 55 and over. There was a statistically significant association between age and cluster group membership, with younger researchers being more likely to fall into the cluster of participants that endorsed definitions highlighting the importance of studying micro-social processes. This could mean a move away from studying macro-sociological in the future. Alternatively, if sociology has lost jurisdiction over certain research topics to other disciplines, it could be that junior researchers are experiencing the discipline differently to their more senior colleagues and therefore describe and view the discipline differently.

Table 6.9: Views of the nature of British sociology

	Arts and Humanities versus Natural Sciences			Adjective Cluster		Descriptor Cluster	
	Arts and Humanities (%)	Mid (%)	Natural Sciences (%)	Critique (%)	Analytic (%)	Micro (%)	Macro (%)
Age							
18-34	25.0	51.6	23.4	**60.2**	**39.8**	**72.7**	**27.3**
35-44	25.9	60.2	13.9	**48.0**	**52.0**	**66.4**	**33.6**
45-54	28.7	60.4	10.9	**61.5**	**38.5**	**57.4**	**42.6**
55+	26.1	62.0	12.0	**67.9**	**32.1**	**45.2**	**54.8**
Seniority							
Postgraduate	22.3	56.4	21.3	67.9	32.1	67.7	32.3
Lecturer or Equivalent	24.3	56.5	19.1	61.5	38.5	62.7	37.3
Senior Lecturer or Equivalent	30.9	61.9	7.2	48.0	52.0	63.5	36.5
Professor or Reader	31.8	52.3	15.9	60.2	39.8	55.1	44.9
Employment Function							
Teaching	**29.5**	**56.7**	**13.8**	**61.3**	**38.7**	63.0	37.0
Not Teaching	**19.3**	**56.8**	**23.9**	**51.7**	**48.3**	60.9	39.1

N=1024

Percentages in **bold** indicate statistically significant associations

3.2 Seniority

As described in Chapter Three, there was no clear relationship between seniority and use of quantitative or qualitative research methods in the last twelve months or identifying as a 'quantitative', 'qualitative' or 'mixed methods' researcher. The most senior group- professors and readers- were more likely to report being 'mixed methods researchers', suggesting again, that possibly with greater experience researchers are more likely to be involved in large mixed methods projects. Alternatively, the trend could reflect differences in training received by each cohort. In particular, the most senior and oldest respondents, could have received their postgraduate education and training in a different discipline. It was not uncommon during the expansion of the discipline in the 1970s, for students from analogous disciplines to be offered sociology lectureships (Platt, 2000; Payne, 2014b).

Table 6.10 shows the three most frequently listed research areas for participants of varying levels of seniority. The modal research area for each level of seniority was 'Social Cohesion, Diversity and Inequalities' (Table 6.10). At least 10% of respondents from each stratum, reported researching in this area. 'Race, Ethnicity and Migration' was also listed frequently by each group. While at least 9% of lecturers, senior lecturers and professors or readers reported researching in the field of 'Health and Medicine', this was not stated with the same frequencies by postgraduate students.

Regardless of seniority, the modal response for core discipline research area reported was 'Social Cohesion, Diversity and Inequalities' (Table 6.11). 'Work and Employment' was also listed as core to the discipline by all groups. In contrast to the other groups, professors and readers reported the study of 'Power' as core to the discipline. Meanwhile, those of lower levels of seniority stated 'Race, Ethnicity and Migration' as core to British sociology. These differences in core research areas could possibly reflect concerns which were most pressing in the earlier formative years of respondents (assuming that more senior staff are older). For instance, the social upheaval of the 1970s may have influenced the teaching more senior staff received and shaped their view of the aims of the discipline.

For all levels of seniority, over 50% of respondents fell into the largest cluster of participants who saw British sociology somewhere between the arts and humanities and the natural sciences with regard to its subject content, methodology, analytical tools status and public utility (Table 6.9). For each of the different levels of seniority, almost one quarter of participants saw the discipline as closer to the arts and humanities. Almost one quarter (22.3%) of postgraduate students stated that British sociology was closer to the natural

Table 6.10: Which areas of sociology best characterise your work? Please give four examples, listed in order of importance

	Research Areas							
	Postgraduate		Lecturer or Equivalent		Senior Lecturer or Equivalent		Professor or Reader	
	Research Area	Frequency (%)	Research Area	Frequency (%)	Research Area	Frequency (%)	Research Area	Frequency (%)
1st	Social Cohesion, Diversity & Inequalities	10.1	Social Cohesion, Diversity & Inequalities	18.4	Social Cohesion, Diversity & Inequalities	24.8	Social Cohesion, Diversity & Inequalities	14.8
2nd	Race, Ethnicity & Migration	9.1	Health & Medicine	9.6	Health & Medicine	13.3	Health & Medicine	10.2
3rd	Work & Employment	9.1	Race, Ethnicity & Migration	8.0	Race, Ethnicity & Migration	10.5	Race, Ethnicity & Migration	9.3
N		99		125		105		108

Table 6.11: Which areas do you see as core to sociology? Please give four examples, listed in order of importance

	Core Research Areas							
	Postgraduate		Lecturer or Equivalent		Senior Lecturer or Equivalent		Professor or Reader	
	Core Area	Frequency (%)	Core Area	Frequency (%)	Core Area	Frequency (%)	Core Area	Frequency (%)
1st	Social Cohesion, Diversity & Inequalities	25.0	Social Cohesion, Diversity & Inequalities	23.6	Social Cohesion, Diversity & Inequalities	27.5	Social Cohesion, Diversity & Inequalities	40.4
2nd	Work & Employment	14.7	Race, Ethnicity & Migration	17.3	Race, Ethnicity & Migration	13.7	Work & Employment	10.1
3rd	Race, Ethnicity & Migration	11.8	Work & Employment	11.8	Work & Employment	7.8	Power	6.1
N		101		121		104		109

sciences, in comparison to less than 10% of senior lecturers. This association between seniority and view of the discipline could suggest that more junior researchers are less likely to view sociology as humanistic in its pursuit than more senior colleagues. Alternatively, the association may simply reflect thinking among more junior academics that the nature of the discipline is changing.

Table 6.9 shows that for all levels of seniority, apart from senior lecturers, participants were more likely to endorse adjectives not traditionally associated with scientific research, such as 'artistic' and 'contextual', as good descriptors of sociological research ('critique' adjective cluster). Over 60% of postgraduate students, lecturers and professors or readers in the survey sample belonged to the 'critique' approach to sociology cluster group. However, senior lecturers were more evenly divided in their group membership with 48% belonging to the 'critique' adjective cluster group and 52% falling in the 'analytic' adjective cluster.

For each level of seniority, the majority of respondents fell into the larger of the two clusters created from the definitions of British sociology (see Chapter Four). This cluster represented participants who were more likely to endorse definitions of the discipline which emphasised the importance of studying micro processes and interactions as opposed to macro structures and phenomenon. Over 55% of participants at each level of seniority belonged to the group which endorsed statements that described the importance of sociology in highlighting micro processes and interactions (Table 6.9). 32.3% of postgraduate students belonged to the cluster of participants who saw sociology as the study of macro structures and systems compared to almost 45% of professors or readers in the survey. Similar to the analysis between age and views of the discipline, this may suggest that future sociologists (current postgraduate students) are more concerned with investigating micro social processes.

3.3 Employment Function

The practices of those who taught were compared with those who held research only employment contracts and those who held neither research nor teaching contracts. It can be argued that the research practices and methodological preferences of those who teach will be more apparent to students and thus more likely to be reproduced in future work.

Table 6.12 shows that a similar proportion of respondents who taught and did not teach identified as 'quantitative researchers'. In both groups, respondents were most likely to identify as 'qualitative researchers' with 60.4% of those who taught stating that they were a 'qualitative researcher' and 53.3% of those who did not teach stating the same. Meanwhile,

30.2% of those with teaching contracts compared to 37% of those who did not teach identified as 'mixed methods researchers'.

Table 6.12: Primarily what kind of researcher do you consider yourself?

	Teaching (%)	Not Teaching (%)
Quantitative	9.4	9.8
Qualitative	60.4	53.3
Mixed Methods	30.2	37.0

The stated areas of research most frequently reported were similar between the two groups (Table 6.13). Both groups reported researching 'Social Cohesion, Diversity and Inequalities' with the greatest frequency. Those who taught were more likely to report researching 'Race, Ethnicity and Migration' while those who did not teach were more likely to report researching 'Family and the Home'. For both groups, 'Social Cohesion, Diversity and Inequalities' was the area most frequently reported as core to British sociology (Table 6.13). Both groups also frequently reported 'Race, Ethnicity and Migration' and 'Work and Employment' as core to the discipline. Those who taught were more likely to list 'Power' as a core area of British sociology, while those who did not teach were more likely to list 'Gender and Sexuality'.

The cluster variables created in the previous chapter were used to explore whether those who taught saw the discipline closer to the arts and humanities or the natural sciences than those who did not teach. Comparing the two groups, it seems that those who taught were less likely to see sociology as close to the natural sciences. Table 6.9 shows that 13.8% of those that taught saw sociology as closer to the natural sciences compared to almost a quarter (23.9%) of those who did not teach. Similarly, 61.3% of participants who taught fell into the 'critique' adjective cluster compared to just over half (51.7%) of those who did not teach belonging to the 'critique' group. Both groups had higher proportions of respondents belonging to the cluster who believed that the definitions of sociology that emphasised the importance of studying micro sociological phenomena were the best descriptors of the discipline.

Table 6.13: Which areas of sociology best characterise your work? Please give four examples listed in order of importance. Which areas do you see as core to sociology? Please give four examples, listed in order of importance.

	Research Areas				Core Research Areas			
	Teaching		Not Teaching		Teaching		Not Teaching	
	Research Area	Frequency (%)	Research Area	Frequency (%)	Research Area	Frequency (%)	Research Area	Frequency (%)
1st	Social Cohesion, Diversity & Inequalities	16.8	Social Cohesion, Diversity & Inequalities	17.6	Social Cohesion, Diversity & Inequalities	27.5	Social Cohesion, Diversity & Inequalities	30.0
2nd	Race, Ethnicity & Migration	10.8	Race, Ethnicity & Migration	7.7	Race, Ethnicity & Migration	14.5	Work & Employment	12.2
3rd	Health & Medicine	10.5	Family & the Home	7.7	Work & Employment	10.6	Gender & Sexuality	11.1
			Work & Employment	7.7				
N		333		91		331		90

Summary:

The analysis in this section has shown that for the survey sample, older and more senior participants were the more likely to identify as 'mixed methods researchers'. It is possible that researchers become more likely to use a range of methods with training and experience. Alternatively, the patterns shown in the data may reflect differences in the training that each cohort received. This latter explanation could help in understanding why the youngest group of respondents (18-34 year olds) contained the highest proportion of 'quantitative researchers'. Since the 2000s, research methodology and promoting quantitative methods has been a strategic priority for the ESRC. Therefore, those trained during this period will have been exposed to more quantitative methods teaching and received more quantitative methods training.

Reported areas of research were fairly consistent among the different age categories. For each age category, at least 12% of respondents reported researching 'Social Cohesion, Diversity and Inequalities'. Approximately 10% of each age cohort reported researching 'Race, Ethnicity and Migration'. Meanwhile, all age categories apart from those aged 45-55, listed 'Heath and Medicine' as one of the three most frequently researched areas. Those aged 45-54 were more likely to report researching 'Gender and Sexuality'. There was also consistency in the research areas that participants of different ages reported as core to the discipline. Approximately one quarter of respondents aged '18-34', '35-44' and '45-54' stated 'Social Cohesion, Diversity and Inequalities' as core to the discipline, while 40.4% of those aged 55 and over listed it as core. 'Race, Ethnicity and Migration' and 'Work and Employment' were topics that were listed frequently as core to the discipline by the different age categories. Those in the eldest age category also frequently listed 'Identity' and 'Power' as core to the discipline.

In regard to how different age cohorts viewed the nature of British sociology, it was shown that there was a statistically significant association between age and the adjective cluster which participants belonged to. In the previous chapter, it was shown that respondents clustered into two groups depending on the adjectives they deemed to be very good and very poor descriptors of British sociology. Based on this analysis, participants could be seen as endorsing either an 'analytic' approach to sociology or a 'critique' approach. Younger participants were more likely to belong to the 'analytic cluster' than the older participants and therefore, were slightly more likely to endorse words such as 'generalisable' and 'objective' as good descriptions of British sociology. Turning to the definitions that

participants endorsed as good descriptions of the discipline, the analysis has shown that younger participants demonstrated a preference for definitions emphasising the study of micro level social interactions. Meanwhile, older participants were more divided in their views. Regardless of age, most participants saw sociological research as somewhere between research in the natural sciences and the arts and humanities. Younger participants appeared to be more likely to see sociological research as close to the natural sciences than their older counterparts.

While postgraduates frequently reported researching in the following areas; 'Social Cohesion, Diversity and Inequalities'; 'Race, Ethnicity and Migration', and 'Work and Employment', lecturers, senior lecturers, professors and readers all stated the same three research areas in the same order; 'Social Cohesion, Diversity and Inequalities'; 'Health and Medicine', and 'Race, Ethnicity and Migration'. Turning to core research, for all levels of seniority, 'Social Cohesion, Diversity and Inequalities' and 'Work and Employment' were among the three most frequently listed research areas. Approximately one quarter of postgraduates, lecturers and senior lecturers listed 'Social Cohesion, Diversity and Inequalities' as core to the discipline. In comparison, over 40% of professors or readers listed it as core to the discipline. More senior researchers were also more likely to report 'Power' as a core area of sociological research. No statistically significant associations were found between seniority and how participants viewed the discipline.

Finally, comparisons were made between those who taught and those who did not teach to see if students were being exposed to a particular view of the discipline. With regard to researcher identity as a 'quantitative', 'qualitative' or 'mixed methods' researcher, no statistically significant differences could be found between those who taught and those who did not. Very similar proportions of participants who taught (16.8%) and did not teach (17.6%) reported 'Social Cohesion, Diversity and Inequalities' as an area that they worked in. Those that taught were more likely than those who did not, to report researching in the field of 'Heath and Medicine'. Meanwhile, those that did not teach listed researching 'Family and the Home' and 'Work and Employment' with greater frequency. Both groups saw 'Social Cohesion, Diversity and Inequalities' and 'Work and Employment' as core research areas. 14.5% of those who taught stated that 'Race, Ethnicity and Migration' was core to the discipline, while 11.1% of those who did not teach listed 'Gender and Sexuality' as core to British sociology.

Those who taught and therefore, potentially more likely to have an influence on undergraduates, were more likely to endorse adjectives associated with a 'critique' approach to sociology and were also statistically significantly more likely to see sociology as akin to research in the arts and humanities. This could mean that those teaching undergraduate sociology courses are reinforcing and perpetuating a view of sociology as interpretive and humanistic in its approach and endeavour. There was no statistically significant relationship between employment function and the definition cluster that participants belonged to.

Thus, the analysis in this section has highlighted:

- *Older and **more senior** researchers were more likely to identify as **'mixed methods researchers'***
- *The **youngest** cohort of participants had the greatest proportion of **'quantitative researchers'***
- *The **most frequently** listed research area for those aged **18-34, 35-44** and **45-54** was **'Social Cohesion, Diversity and Inequalities'***
- *The **most frequently** listed research area for those aged **55+** was **'Health and Medicine'***
- ***'Race, Ethnicity and Migration'** was a research area **listed frequently** by each age group of participants*
- *For **each age group**, most participants reported **'Social Cohesion, Diversity and Inequalities'** as **core** to British sociology*
- ***'Race, Ethnicity and Migration'** was also listed frequently as **core** to the discipline by **all age groups**. For those aged **18-34, 35-44** and **45-54** at least **11%** listed '**Work and Employment'** as core to the discipline while, **'Identity'** and **'Power'** were listed with greater frequency by the **oldest respondents***
- *Younger respondents* were statistically significantly **more likely** than older respondents to belong to the **'analytic'** adjective cluster group. This means that they were more likely to agree that words such as 'generalisable' and 'objective' are good descriptors of sociological research*
- *Younger participants* were also statistically significantly **more likely** than older respondents to belong to the **'micro'** definitions cluster group. This means that they were more likely to award low scores to definitions of British sociology that emphasised the study of macro-social phenomena. Meanwhile, the eldest participants were more evenly divided between the two cluster groups*

- *Younger participants* appeared more likely than older respondents to see sociology as *closer to the natural sciences* than the arts and humanities. However, this relationship was not statistically significant

- *Regardless of seniority,* respondents reported working in the research area of *'Social Cohesion, Diversity and Inequalities'* with the greatest frequency. Equally, participants in each group frequently listed *'Race, Ethnicity and Migration'* as a research area. *Postgraduates* were more likely to list *'Work and Employment'* as a research area, while those of *higher seniority* listed *'Health and Medicine'* as a research area with greater frequency

- Likewise, for *each stratum of seniority, 'Social Cohesion, Diversity and Inequalities'* was listed as the most *core* research area in British sociology. *'Work and Employment'* was also listed frequently by each group as a core research area. *Professors* were more likely to list *'Power'* as a core research area, while more *junior respondents* listed *'Race, Ethnicity and Migration'* with greater frequency

- There were *no statistically significant associations* between *seniority and views of the nature of British sociology.*

- Differences in research practices and views of the discipline among participants of different ages and levels of seniority may reflect *differences in training* received or may suggest that with *experiences* research practices and views change

- The research practices of those who taught and those who did not teach were very similar. *9.4%* of those who *taught* reported being a *'quantitative researcher'* in comparison to *9.8%* of *those who did not teach*

- *'Social Cohesion, Diversity and Inequalities'* was the most frequently listed research area for both those who taught and those who did not teach. *'Race, Ethnicity and Migration'* was listed by at least 7% of the sample in each group. Those who *taught* were more likely to report researching in the field of *'Health and Medicine'*. Meanwhile, *'Family and the Home'* and *'Work and Employment'* were also popular research areas for those *who did not teach*

- *Regardless of employment function,* respondents listed the study of *'Social Cohesion, Diversity and Inequalities'* as the most *core* area of British sociology. *'Work and Employment'* was also listed frequently by each group. Those that *did not teach* were more likely to report *'Gender and Sexuality'* as core to the discipline

- Those who *taught* were statistically significantly more likely to belong to the *'critique'* adjective cluster compared to those who did not teach. They were also

*slightly more likely to endorse definitions that highlighted the study of **micro-social** interactions as good descriptors of British sociology- although this relationship was not statistically significant. Finally, those that taught were statistically significantly more likely to view sociology as **closer to the arts and humanities** than those who did not teach. This may suggest that students are being **transmitted a particular view of the discipline***

4. Chapter Discussion and Summary

This chapter has explored the attitudes held by the survey respondents toward the future of British sociology. The first section of the chapter discussed some of the concerns sociologists hold about the future of their discipline using respondents' qualitative comments. Quantitative analysis was also presented to demonstrate how the pressures of proving the value and potential impact of research influenced decisions researchers made before commencing work. The chapter then moved on to disaggregate the data and make comparisons between respondents' views of the discipline and research practices by age, seniority and employment contract to enable tentative inferences about the future direction and character of the discipline to be made.

Survey participants seemed to share anxieties over the future of their discipline. Some feared that British sociology was '*stuck in the mud*' and in need of drastic change in order to survive budget cuts and to prove its value. Meanwhile, others called for a return '*back to basics*' fearing that new trends were preventing sociology from answering big societal questions and having impact. There was a consensus among participants that the discipline was 'somewhat' in decline and that work previously seen as sociological was being conducted in other disciplines. Participants blamed lack of funding and the necessity to demonstrate impact as causing the discipline to stagnate. The quantitative findings reinforced this, showing the importance that the participants attached to the dissemination of their work. Despite an apparent emphasis of the pragmatic purpose of their research, very few participants felt optimistic that the Government would listen and respond to the findings of social research.

It is worth noting that the distribution of the second sweep of the survey (database of sociologists) coincided with the European Union referendum and the subsequent decision for the UK to leave the European Union. The timing of this seemed to prompt respondents to speculate more about the future of the discipline and in particular the status and research funding that will be afforded to the discipline by the Government after the UK exits the European Union. This also led to comments more generally about David Cameron's

Conservative Government and its perceived "disregard for expertise" or lack of "appetite to listen" to sociologists.

Researchers in the survey sample who were aged 55 and over were more likely to identify as 'mixed methods researchers'. A pessimistic interpretation of this may suggest that the future of British sociology will be less methodologically pluralist than it currently is. A more encouraging interpretation is that researchers become more confident and able to use a variety of methods and approaches with age and experience in the discipline. Those aged 55 and over also reported different research areas as core to British sociology to their younger counterparts. This could mean that research areas such as 'Power' and 'Identity' will become less central to the discipline as this older cohort retire. Further to this, the analysis showed that older participants were more likely to belong to the cluster of respondents that endorsed statements that emphasised the role of sociology in understanding macro sociological phenomenon increased.

The findings also suggest that more senior researchers are more likely to identify themselves as 'mixed methods researchers'. Further, junior researchers seemed to be a less homogenous group in terms of research areas which they investigated. On the one hand, this may suggest that in the future British sociology may become a broader, more diverse discipline. On the other hand, it may be that with experience working in the discipline, research areas become more niche, perhaps to those research areas perceived as having greater privilege in the discipline or greater impact.

What cannot be deduced from the evidence presented here is whether research practices and views of the nature and purpose of British sociology change with age and seniority or remain constant. It is not clear whether the findings reported are *cohort effects*. Future studies could replicate the research to enable some longitudinal analysis of research practices and views of the discipline. Alternatively, it may have been advantageous to ask participants about the methods and approaches used in their PhD to enable more direct comparisons.

It appears that the research practices of those who taught and those who did not teach were actually quite similar. However, differences were reported in how the two groups viewed the nature of the discipline. It is possible that those who teach are portraying sociology as more humanistic in its endeavour and approach to students.

Concerns over the future status of British sociology has been a recurrent theme in the history of the discipline (Wakeling, 2009) and yet the discipline has survived to date. Therefore, some may be critical of the speculative nature of the findings presented here and even argue that such analysis serves only to encourage panic over the future of British sociology. The analysis should be seen as conjectures about the future of the discipline only. It is beyond the scope of this project to deduce whether research practices and views of the discipline are static or with a tendency to change with age or seniority, thus no definitive conclusions on the future can be made. However, the analysis raises some important considerations that may inform curriculum development and initiatives in the future. The higher proportions of younger respondents and more junior respondents identifying as 'quantitative researchers' may provide further evidence to support the success of efforts since the early 2000s by the ESRC to improve the quantitative methods training of students and to readdress the quantitative research deficit in the discipline.

The next chapter aims to contextualise the findings from the UK study, by undertaking a small-scale comparative examination of the methodological preferences and research practices of sociologists in different countries. Specifically, the national sociologies of the UK, New Zealand and the Netherlands will be compared. It is hoped that this will enable some discussion of the possible factors leading to disengagement with quantitative methods in British sociology.

Chapter 7 : The Quantitative Experience of the UK, New Zealand and the Netherlands

"I think the US, Canada, Australia and continental Europe are more engaged and comfortable with the use of quantitative methods as part of the sociological toolkit […]"

(Male, Senior Lecturer or Equivalent, Aged 45-54)

Research question(s) addressed in this chapter:

R.Q 4: *How does sociology in Britain compare to the discipline in other countries?*

R.Q 5: *What can be learnt from looking at sociology in other countries?*

1. Introduction

While there are many possible ways of describing what the nature and purpose of sociology should be, evidence in the previous chapters and existing literature (Payne and Williams, 2011) suggests that if British sociology continues along the present trajectory, it may not have the capacity, ability or inclination to explain macro social phenomena, or be able to effectively inform policy and practice. To contextualise what is happening in the UK, this chapter will explore the extent to which other national sociologies are asking questions and addressing issues particularly relevant to their societies and Governments, and the degree to which they are equipped to answer such questions.

Similar to the UK, qualitative approaches dominate sociological research in New Zealand (Mast, 1988; Thorns, 2003; Crothers, 2008a). Mast (1988) explained how the strong influence of British sociology on the development of the discipline in New Zealand, may go some way toward explaining the marked preference for qualitative studies there. However, just as in the UK, calls are now being made for New Zealand sociologists to employ quantitative skills more widely in their research, so as to inform and influence policy and practice more significantly (Thorns, 2003). By contrast, Parker et al. (2008) depicted Dutch sociology as being advanced in its use of quantitative skills. These authors described how social science undergraduates (including sociology students) in the Netherlands were required to complete several purely quantitative modules and complete a dissertation or research project.

Some key information regarding sociology in the UK, New Zealand and the Netherlands is outlined in Table 7.1. This information has been taken from the learned societies' websites for each country. The total number of universities in each country and the percentage of universities offering sociology courses has been included as a point of reference, to give an indication of the degree of presence of sociology in academia in each country.

Table 7.1: A comparison of sociology between the UK, New Zealand and the Netherlands

	UK	New Zealand	Netherlands
Learned Society (Source of Data)	British Sociological Association (BSA)	Sociological Association of Aotearoa (SAA(NZ))	Nederlandse Sociologische Vereniging (NSV)
Official Output of Learnt Society	Sociology Work, Employment and Society	New Zealand Sociology	Sociologie Magazine
Number of Universities Offering Sociology Courses	99	8	6
Total Number of Universities	147	8	14 (Research Universities)
% of Universities Offering Sociology Courses	67%	100%	43%

A shortened version of the online survey that was distributed to professional sociologists in the UK was also sent to sociologists in the Netherlands and New Zealand. Experience running the UK survey suggested that a shorter survey could lead to a higher response rate. Given the time and monetary constraints on the project, it was only possible to run one sweep of data collection in each of the comparator countries, therefore maximising the potential response rate was essential. Equally, some of the questions posed in the UK survey were deemed unsuitable for the comparator countries or in some cases, insufficient literature

existed to determine whether the questions posed in the UK survey would be suitable for the surveys in the comparator countries. For this same reason, the surveys in the comparator countries contained one extra question to the UK sample, which asked respondents to pick key words to describe their national sociology.

Negotiating access meant that these comparator surveys were initially distributed via contacts in each country and later emailed directly to sociology departments in every higher education institution in each country. The Sociological Association of Aotearoa (New Zealand) (SAA(NZ)) also agreed to distribute the survey among members. A total of 125 responded to the survey in the Netherlands, while 33 responded to the survey in New Zealand. Both samples were representative with regard to gender, however, professors and associate professors were under-represented in the Netherlands sample and PhD researchers over-represented in the New Zealand sample.

This chapter begins with an analysis of the countries that the UK survey respondents believed produced 'world-leading' sociological research. While funding, publications and status were all reasons stated for making a national sociology 'world-leading', for many of the UK respondents, *methodological diversity* and *extensive methodological training* were also critical for a successful discipline. To inform a discussion of how British sociology compares to other national sociologies, the data from the surveys distributed to sociologists in New Zealand and the Netherlands will be presented in the second part of this chapter. Due to the constraints of the study, the research on other national sociologies is mainly descriptive. The variables included in the analysis shown in this chapter are described in Appendix 4.

2. 'World-Leading' Sociology

The UK survey participants were asked which country they believed produced 'world-leading' sociology, and the reasons why they chose those particular places. The question was open-ended to enable participants to discuss the attributes they felt made a country's sociology 'world-leading'. In some cases, respondents listed multiple countries. Equally, a number of respondents struggled to select any particular country, but still described and explained the factors they believed could lead to a 'world-leading' discipline. As a result, the analysis presented here lists the frequency with which different countries were mentioned, and not the percentage of participants who stated a particular country. The analysis also draws extensively on the qualitative comments given by participants.

The map shown in Figure 7.1 shows the countries that the *UK survey participants* believed produced 'world-leading' sociology.

Figure 7.1: Which country to you think produces world-leading sociological research and why? UK respondents

The most frequently cited country was the USA. Justification for this answer was often attributed to the country's *size* and therefore greater opportunities. For example:

"United States [...] because of sheer volume." *(Qualitative Researcher, Male, Professor/Reader, Aged 55+)*

Increased *funding* and better *working conditions* were other reasons frequently given as justification for stating that the USA was able to produce 'world-leading' sociology:

"America as they have much more funding available and more time to do research" *(Qualitative Researcher, Female, Senior Lecturer or Equivalent, Aged 35-44)*

"United States: resources, tradition, scale." *(Mixed Methods Researcher, Male, Senior Lecturer or Equivalent, Aged 35-44)*

"United States of America. The funding available and the range of focus areas are much more wide and effective." *(Qualitative Researcher, Male, Postgraduate, Aged 18-34)*

Many UK respondents explicitly stated extensive *research methods training* in sociology in the USA as a feature that made the discipline 'world-leading':

"USA because of the research methods and substantive training available" *(Qualitative Researcher, Male, Professor/Reader, Aged 55+)*

"USA - a much more applied approach, more methodological diversity and more of a focus on critical issues like race, poverty, discrimination. Also average level of

sociology PhDs and faculty in terms of methods training is higher." *(Quantitative Researcher, Male, Professor/Reader, Aged 45-54)*

There was a belief among some participants that the higher level of engagement with quantitative methods in the USA meant that researchers' work was of greater public utility and more likely to impact on policy and practice. For instance:

"USA because they focus on rigorous quantitative methods, engage with social movements and politicians so their research is relevant and useful, and they're not afraid to tackle big contemporary questions e.g. imprisonment and causes of racial disparities in this." *(Quantitative Researcher, Female, Lecturer or Equivalent, Aged 18-34)*

Although participants were not asked which countries were 'world-leading' with regard to methodological approaches to sociology, the question seemed to prompt numerous international comparisons of methodological approaches. This could suggest a shared concern among respondents over the methodological approaches frequently employed to investigate the social world in the UK. For example:

"Scandinavia broadly conceived (because of the strength of theory and methods teaching)." *(Qualitative Researcher, Male, Lecturer or Equivalent, Aged 18-34)*

"European sociology because methodologies are more advanced and more rigorous and they are less likely to become disciples of particular theoretical cults." *(Mixed Methods Researcher, Male, Professor/Reader, Aged 45-54)*

Other countries which were frequently chosen by participants included France and Germany. Both were deemed to have strong theoretical backgrounds:

"France and Germany for theoretical innovation and conceptual richness" *(Mixed Methods Researcher, Male, Professor/Reader, Aged 55+)*

"France and Germany due to intellectual traditions and public understanding" *(Qualitative Researcher, Male, Professor/Reader, Aged 55+)*

The Netherlands was listed as producing 'world-leading' sociological research by 13 participants. Strong methodology, particularly the use of quantitative methods was stated as a reason for describing Dutch sociology as 'world-leading':

"Netherlands: much better use of good quantitative methods" *(Quantitative Researcher, Male, Professor/Reader, Aged 55+)*

"The Netherlands. Strong quantitative tradition and high number of excellent publications using a variety of methods" *(Quantitative Researcher, Female, Lecturer or Equivalent, Aged 18-34)*

The methodological expertise, greater levels of resources, and strong tradition of Dutch sociology possibly enables sociological research in the Netherlands to have greater impact in Government and on other academic disciplines. Discussing work conducted at the University of Amsterdam, one respondent stated:

"University of Amsterdam. Here sociologists develop perhaps a stronger theoretical background compared to UK and also US, and a strong emphasis is placed on cooperation with local governments (see for example research conducted by the Amsterdam Research Institute for Societal Innovation). In both cases, sociologists probably feel less isolated, either because they have developed strong method skills that allow them to dialogue with other disciplines or/and because they are systematically included in the process of public policy design." *(Mixed Methods Researcher, Male, Postgraduate, Aged 18-34)*

Arguably, such level of involvement with policymakers is less remarkable or surprising in a small country like the Netherlands. However, this relationship between Government and sociologists was not mentioned for any other smaller countries, including New Zealand.

Only 2 respondents stated that they felt New Zealand produced 'world-leading' research, with one respondent explaining how sociological research here was relevant and influential to their own research interests:

"Australia and New Zealand are producing some excellent academics and research in my areas." *(Qualitative Researcher, Male, Lecturer or Equivalent, Aged 18-35)*

Summary:

Sociological research produced in America was considered by many UK participants as 'world-leading'. This was often considered to be the case because of, resources, funding, and the size of the country. Other countries frequently cited included France and Germany. Sociology in these countries was considered to be a strong in regard to theory. The comparator countries for the present study, New Zealand and the Netherlands, were

mentioned as 'world-leading' by some participants. The methodological expertise and, in particular, the 'strong quantitative tradition' of Dutch sociology meant that this country was often listed as producing 'world-leading' sociology. The participants who stated that New Zealand produced 'world-leading' sociological research, explained that research being produced there linked to their own fields of work. Thus, the analysis has revealed:

- *Many of the participants believed that the **USA** produced **'world-leading'** sociology. It was believed that the **size** of the country and the **greater levels of resources and funding** available, made sociological research in the USA 'world-leading'*

- *The **empirical and quantitative nature** of **American sociology** was also a feature frequently mentioned by participants. Respondents noted that the **methods training**, and in particular, the **quantitative methods training**, in the USA was superior to that of the UK. Some participants stated that this meant sociological research in the USA was of **greater public utility** and had more **impact on policy and practice***

- *Considering which countries produced 'world-leading' sociology, prompted many participants to **compare** the **methodology** of different national sociologies. For instance, **European sociologies** were described as having **'more advanced and more rigorous'** methodologies*

- ***France** and **Germany** were also listed frequently by respondents. It was suggested that these countries had **strong theoretical backgrounds***

- *Some participants listed the two comparator countries; the Netherlands and New Zealand as producing 'world-leading' sociology. Participants commented on the level of **resources**, **methodological training** and **policy impact** of sociology in the **Netherlands**. Meanwhile, respondents stated that their **own research interests** overlapped with work being conducted in **New Zealand***

3. Sociology in the UK, New Zealand and the Netherlands

The survey participants in each country were asked whether they primarily identified as a 'quantitative', 'qualitative' or 'mixed methods' researcher or whether they did not undertake empirical research. Table 7.2 shows that almost three-quarters of the Netherlands sample reported being 'quantitative researchers' compared to less than 10% in both the UK and New Zealand. The majority (54.5%) of the respondents from New Zealand identified as 'qualitative researchers'. A similar proportion of researchers in the UK (57.7%) also identified as 'qualitative researchers', while just 7.0% of the Netherlands respondents classified themselves as 'qualitative researchers'. Just over 30% of the participants in the UK and New

Zealand reported being 'mixed methods researchers' compared to under 20% of those from the Netherlands.

Table 7.2: Primarily what kind of researcher do you consider yourself?

	UK (%)	New Zealand (%)	Netherlands (%)
Quantitative	9.0	9.1	74.0
Qualitative	57.7	54.5	7.0
Mixed Methods	32.0	31.8	19.0
I do not undertake empirical research	1.3	4.5	0.0
N	450	22	102

Table 7.3: To what extent have you used quantitative research methods/qualitative research methods in the last year?

	Quantitative			Qualitative		
	UK	New Zealand	Netherlands	UK	New Zealand	Netherlands
	(%)	(%)	(%)	(%)	(%)	(%)
A lot	17.4	36.4	81.6	56.8	54.5	15.2
Some	29.5	9.1	11.2	30.4	22.7	16.2
A little	20.8	22.7	4.1	7.4	18.2	15.2
None	32.2	31.8	3.1	5.4	4.5	53.5
N	461	22	100	460	22	101

Table 7.3 depicts the extent to which respondents claimed to have used quantitative and qualitative methods in the last year. In the Netherlands, over 80% of the participants stated that they had used quantitative methods 'a lot' in the last twelve months. While similar proportions in the both UK and New Zealand samples reported using 'no' quantitative methods in the last year, the New Zealand respondents were more likely than those in the UK to report that they had used 'a lot' of quantitative research methods in the last year. This

may suggest a more distinct dichotomy of approaches to research in New Zealand compared to the UK.

Table 7.3 also shows that the majority of the UK and New Zealand respondents had used 'a lot' of qualitative research methods in the last year, while the majority of the Netherlands respondents stated that they had 'not' used qualitative research methods in the last twelve months.

Respondents in each country were also asked to list the four topic areas which best characterised their areas of research. The open-text responses were coded according to an adapted version of the classification scheme used in Crother's (2011) exploration of British sociology (Appendix 5). The answers given by respondents were summarised to show the three most frequently researched areas of sociology for each country (see Table 7.4).

Table 7.4: Which areas of sociology best characterise your work?

	UK		New Zealand		Netherlands	
	Research Area	Frequency (%)	Research Area	Frequency (%)	Research Area	Frequency (%)
1st	Social Cohesion, Social Inequalities and Diversity	17.0	Health and Medicine	28.6	Social Cohesion, Social Inequalities and Diversity	21.6
2nd	Health and Medicine	9.8	Economic	9.5	Race, Ethnicity and Migration	11.3
3rd	Race, Ethnicity and Migration	9.4	Gender and Sexuality	9.5	Family and Childhood	8.2

There were overlaps in the most frequently reported research areas across each country. For both the Netherlands and the UK, 'Social Cohesion, Social Inequalities and Diversity' was the most popular area of research. Equally, for both samples approximately 10% of participants reported researching 'Race, Ethnicity and Migration'. 'Health and Medicine' was a research

area reported frequently by both the UK and the New Zealand sample with 9.8% and 28.6% of the samples respectively researching this area. Furthermore, the top three research areas for New Zealand sample represented over 47% of the sample, perhaps indicating that sociological research is less diverse in New Zealand. For the Netherlands sample, 41.1% of the sample researched the top three research areas, while for the UK, just over 36% of the sample researched the top three research areas. Moreover, just under 5% of the Netherlands sample reported 'Research Methods' as an area of research, compared to only 1.1% of the UK sample and none of the New Zealand sample.

In the two comparator countries, participants were also asked to list key words to describe sociology in their country. The range of words was surprisingly small, with the New Zealand sample listing only 34 different words to describe the discipline in their country and the Netherlands sample listing only 84 words. The most commonly listed words for both countries related to methods and/or the nature of research. The word clouds below depict the words most frequently stated (figure 7.2 and figure 7.3), with the words that appear larger being the ones listed with the greatest frequency. For the New Zealand sample, 'qualitative' and 'small-scale' were the words most frequently used to describe the discipline. These were each stated by 9.1% of participants. The most popular words for the Netherlands sample were; 'quantitative', 'empirical' and 'theory driven' and these were stated by 24%, 7.2% and 7.2% of the respondents respectively.

Figure 7.2: Which key words would you use to describe sociology in your country? New Zealand

Figure 7.3: Which key words would you use to describe sociology in your country? The Netherlands

The differences in key words listed by each sample suggest that sociology is viewed quite differently in each country. The New Zealand sample portrayed the discipline as "under-loved", "under-funded", "boring" "unevenly skilled" and "poor quality". By contrast, the image of sociology from the Netherlands sample appeared more positive. The discipline is "valued", "high quality", "relevant" and "well-published".

Further evidence that the discipline was viewed in opposing ways in the Netherlands and New Zealand can be found from how close participants in each country viewed sociology to the arts and humanities and the natural sciences. Participants were asked to use ten point semantic differential scales to rank where they saw sociological research in comparison to arts and humanities research and natural science research across a number of variables. These variables were, subject content; methodology; analytical tools; public utility, and status.

Figure 7.4 shows the mean scores given by participants for each dimension in each country. The higher the mean score, the closer to the natural sciences the participants viewed the

discipline, while low mean scores suggest that participants saw sociology is closer to the arts and humanities.

Figure 7.4: Please indicate on the following scales how close you see sociology to the arts and humanities or natural sciences, where 1 indicates closeness to the arts and humanities and 10 indicates closeness to the natural sciences
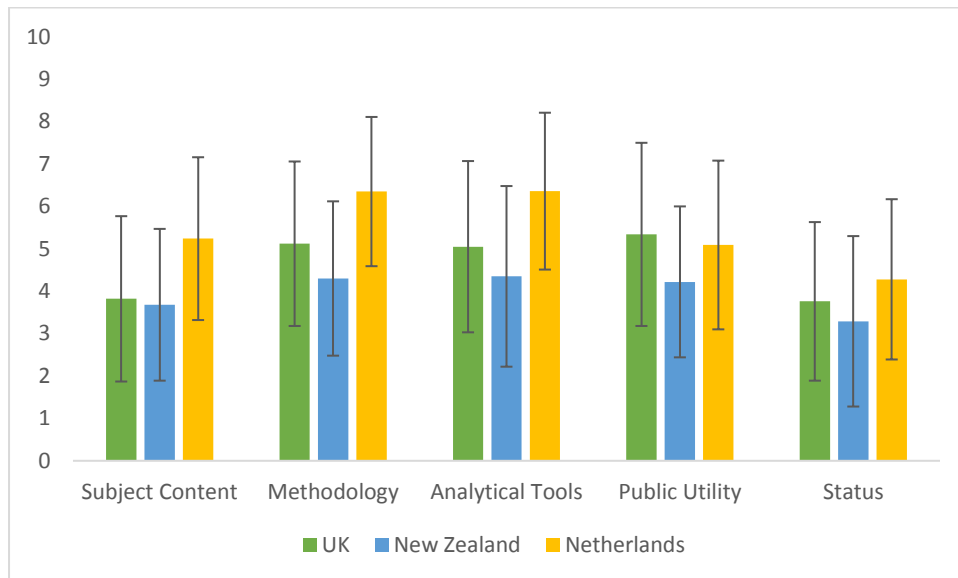
Across all of the dimensions, the participants from New Zealand gave lower mean scores suggesting that the discipline in their country is more humanistic in its approach and application. Meanwhile, the Netherlands sample awarded mean scores of above 5 on each of the dimensions apart from status. The views of the participants from the UK fell between those of the Netherlands and New Zealand samples. The comparatively lower score for the status of the discipline in the Netherlands could reflect the fact that research published in the Dutch language and in the mainstream national journals can have limited impact outside of the Netherlands. Meanwhile, Anglophone publications produced in both the UK and New Zealand will be accessible to academics in many countries.

The grouped data (see Table 7.5) reinforces this pattern. In all three countries, the majority of respondents saw the subject content and status of sociological research as closer to the arts and humanities. The Netherlands sample was the only group to have the 'natural sciences' as the modal response for any of the variables investigated. Almost 55% of the Netherlands sample scored the methodology of sociological research as close to the natural sciences and 53.6% scored the analytical tools of sociological research as close to the natural sciences. Across the groups, the biggest difference was seen with regard to how close participants saw the analytical tools used in sociological research in relation to the arts and humanities or the natural sciences. Just under 10% of the New Zealand sample placed the

analytical tools of sociology close to those used in natural science disciplines compared to almost a quarter of participants in the UK sample and over 50% of the Netherlands sample.

Table 7.5: Please indicate on the following scales how close you see sociology to the arts and humanities or the natural sciences, where 1 indicates closeness to the arts and humanities and 10 indicates closeness to the natural sciences

	Arts and Humanities	**Mid**	**Natural Sciences**
	(%)	**(%)**	**(%)**
Subject Content			
UK	64.3	26.2	9.5
New Zealand	73.7	21.1	5.3
Netherlands	36.1	35.1	28.9
Methodology			
UK	34.8	43.3	21.9
New Zealand	55.0	30.0	15.0
Netherlands	12.4	33.0	54.6
Analytical Tools			
UK	37.1	39.2	23.8
New Zealand	81.0	9.5	9.5
Netherlands	13.4	33.0	53.6
Public Utility			
UK	31.5	38.9	29.6
New Zealand	44.4	50.0	5.6
Netherlands	36.5	42.7	20.8
Status			
UK	66.9	25.2	7.9
New Zealand	81.0	9.5	9.5
Netherlands	36.1	35.1	28.9

Despite the word clouds presented depicting sociological research in the Netherlands as a more analytical discipline, cluster analysis on the variables measuring how similar participants believed sociology was to the arts and humanities and the natural sciences revealed two groups of fair quality (see Table 7.6). The groups were similar in size with 54.7% of participants belonging to the first cluster and 45.3% belonging to the second cluster. The first cluster included participants who gave lower mean scores for each of the statements, therefore viewing sociology as closer to the arts and humanities with regard to subject content; methodology; analytical tools; public utility, and status. While the second group gave mean scores above 5 for each of the dimensions, indicating that they viewed sociology as closer to the natural sciences. The variable that was most important in determining group membership was subject content, followed by methodology; analytical tools; status, and finally, public utility. Both clusters gave mean scores of greater than 5 with regard to methodology and analytical skills. The largest difference between the two clusters was with regard to views on how close to the natural sciences or arts and humanities the subject content of sociology was.

Table 7.6: Please indicate on the following scales how close you see sociology to the arts and humanities of the natural sciences, where 1 indicates closeness to the arts and humanities and 10 indicates closeness to the natural sciences. Netherlands Sample.

	Cluster 1 Figurational Sociologists (54.7%)	Cluster 2 Explanatory Sociologists (45.3%)
Subject Content	3.85	6.93
Methodology	5.23	7.70
Analytical Tools	5.29	7.65
Status	3.52	5.21
Public Utility	4.54	5.70
N	53	44

The resultant two clusters suggest that there is a sizeable proportion in the discipline in the Netherlands who do view sociology as a more humanistic discipline. The two clusters may reflect the two different approaches; figurational and explanatory, to sociology seen in the Netherlands (As discussed in Chapter Two: See Section 4.5 'Sociology in the Netherlands'). Qualitative comments left by Dutch participants reinforced this:

"In the Netherlands there are different groups; some more quantitative, others more qualitative. Some are closer to 'humanities' than others." *(Quantitative Researcher, Female, Aged 18-34)*

Meanwhile, the New Zealand data did not cluster into groups. All participants fell into one group. This could have been the result of the small sample size (n=33). Alternatively, it may be indicative of the discipline being less diverse in New Zealand and more homogenous, something that was reflected in the key words that participants used to describe the discipline and the fact that almost 50% of the sample worked in the same three research areas.

Respondents rated how they thought sociological research in their country compared to research in other countries. Table 7.7 shows that the UK was the only sample to have any participants who felt that their national sociology was a 'great deal poorer' in quality. Equally, the UK was the country with the greatest proportion of participants stating that sociology was 'poorer' in their country compared to others. Participants in the Netherlands survey were more positive about the quality of sociological research in their country, with 65.1% agreeing that sociological research in the Netherlands was 'better' than sociological research in other countries. A further 5.8% agreed that research in the Netherlands was a 'great deal better' than sociological research in other countries. Most of the respondents in New Zealand thought that sociological research in their country was of a 'similar' quality to that produced in other countries. An additional 10.5% stated that sociological research in New Zealand was 'better' than in other countries.

Table 7.7: How does sociological research compare in your country to sociological research in other countries?

	UK (%)	Netherlands (%)	New Zealand (%)
A great deal better	5.1	5.8	0.0
Better	42.1	65.1	10.5
Similar	41.0	27.9	84.2
Poorer	10.0	1.2	5.3
A great deal poorer	1.8	0.0	0.0
N	451	88	19

Further evidence to illuminate the lack of confidence in the quality of sociological research in the UK, in comparison to the Netherlands and New Zealand, can be demonstrated through the absence of qualitative comments from the respondents in either the Netherlands or New Zealand on an impeding disciplinary crisis. This is in comparison to the UK respondents who frequently brought up worries over the future of the discipline:

> "Sociology is in crisis as it talks to itself and not to the wider world. It is not seen as relevant. It should be about inequalities and social justice particularly race gender class sexuality divisions, but it is an elite discourse dominated by white and mainly male middleclass scholars." *(Qualitative Researcher, Female, Professor/Reader, Aged 55+)*

Summary:

The latter section of analysis in this chapter, has compared the national sociologies of the UK, New Zealand and the Netherlands. With regard to researcher identity, the distribution of 'quantitative'; 'qualitative' and 'mixed methods' researchers were very similar for the UK and New Zealand samples. Meanwhile, almost *three quarters* of the *Netherlands* respondents identified as '*quantitative researchers*', while the minority (7%) stated that they were qualitative researchers. Almost all (*92.8%*) of participants in the *Netherlands* reported using '*a lot*' or '*some*' quantitative research methods in the last year compared to *46.9%* and *45.5%* of participants in the *UK* and the *New Zealand* respectively. Turning to engagement with *qualitative research methods* in the last year, *87.2%* of the *UK* sample reported using '*a lot*' or '*some*' in the last year, compared to *77.2%* in *New Zealand* and just *31.4%* in the *Netherlands*.

There were similarities in the top three research areas that respondents in each country reported working in. Further to the discussion in Chapter Three (Surveying Professional Sociologists, Section 2: Cross-Comparative National Research), these overlaps in research areas may suggest an agreed concept of sociology in each of these countries. The list and range of research areas was smaller for New Zealand and the Netherlands, perhaps indicating a *more homogenous* discipline in these countries compared to the UK. Although this could have been a result of the smaller sample sizes in each of these countries.

Participants in each of the comparator countries were asked to list some key words to describe the discipline. These words were often related to approaches to research and methodology. For instance, words given by the *New Zealand* sample included; '*qualitative*'; '*small-scale*'; '*theoretically grounded*'; '*critical*' and '*descriptive*'. Likewise, the *Netherlands*

sample used the following words to describe sociology; '*quantitative*'; '*analytical*'; '*empirical*'; '*theoretical*'; and '*hypothesis testing*'. Overall, the words listed by participants in each country portrayed opposing views of the discipline and its value and status. For instance, the *New Zealand* sample described sociology as '*boring*' and '*under-loved*', while the *Netherlands* sample described it as '*relevant*' and '*high-quality*'.

The *Netherlands* respondents consistently reported that sociology was closer to research in the *natural sciences* with regard to subject content; methodology; analytical tools; public utility and public status. Meanwhile, participants in *New Zealand* were more likely to see sociology as closer to the *arts and humanities* in regard to the aforementioned variables. The UK respondents' mean scores fell somewhere between those given by the Netherlands and New Zealand participants.

Similarly to Chapter Five, cluster analysis was conducted to see if participants in each of the comparator countries could be grouped according to how close they saw sociology to the arts and humanities and the natural sciences. The data for New Zealand did not cluster. However, the data for the Netherlands returned two cluster groupings of fair quality. The larger group contained 54.7% of the sample. This group saw sociology as closer to the arts and humanities than the natural sciences. Meanwhile, the second, slightly smaller group (containing 45.3% of participants) saw sociology as closer to the natural sciences. It was suggested that these two cluster groupings could reflect the two approaches to sociology; Figurational and Explanatory, seen in the Netherlands (See Chapter Two: Section 4.5: Sociology in the Netherlands).

Overall, this section of the analysis has revealed that:

- *The **majority** of the participants in the **UK** identified as **'qualitative researchers'**. The **majority** of the participants in **New Zealand** also identified as **'qualitative researchers'**. However, almost **three quarters** of the participants from the **Netherlands** identified as **'quantitative researchers'***

- ***46.9%** of respondents in the **UK** reported using **'a lot'** or **'some' quantitative** research methods in the last year. Likewise, **45.5%** of the **New Zealand** sample reported using **'a lot'** or **'some' quantitative** research methods in the last year. In contrast, **92.8%** of respondents in the **Netherlands** reported using **'a lot'** or **'some' quantitative** research methods in the last year*

- *Meanwhile, **87.2%** of participants in the **UK** stated that they had used **'a lot'** or **'some' qualitative** research methods in the last year. **77.2%** of those in the **New***

Zealand sample reported using *'a lot'* or *'some'* qualitative research methods in the last year. This is in comparison to **31.4%** of the respondents from the **Netherlands**.

- There were **similarities** between the **most frequently reported research areas** for both comparator countries and the UK. *'**Social Inequalities, Cohesion and Diversity'*** was the modal research area for respondents in the **UK** and in the **Netherlands**. Both the **UK** and the **Netherlands** sample also frequently reported researching *'**Race, Ethnicity and Migration'***. Meanwhile, the modal research area for the **New Zealand** sample was *'**Heath and Medicine'***. This was also a popular research area among the UK sample. The two **comparator countries** appeared to be **slightly more homogenous** in their research areas compared to the UK sample

- **New Zealand** sociology was depicted as; *'**boring'***; *'**lacking public authority'***; *'**poor'***, and *'**not very empirical'***

- Meanwhile, sociology in the **Netherlands** was depicted as *'**relevant'***; *'**policy oriented'***; *'**high quality'***, and *'**professionalised'***

- Sociology in **New Zealand** was seen as **closer to the arts and humanities**, while sociology in the **Netherlands** was seen as **closer to the natural sciences**. In particular, the Netherlands participants saw the methodology and analytical tools of sociology as closer to the natural sciences. The **UK** sample seemed to view sociology as **somewhere between** the arts and humanities and the natural sciences

- The New Zealand sample did not cluster according to how close they saw the discipline in relation to the arts and humanities and the natural sciences

- By contrast, cluster analysis of the **Netherlands** sample, revealed **two groups of participants**. The first group viewed sociology as **closer to the arts and humanities**, while the second group viewed sociology as **closer to the natural sciences**. It could be that these two groups represent the two dominant approaches to sociology in the Netherlands; **Figurational sociology** and **Explanatory sociology**

4. Chapter Discussion and Summary

The aim of this chapter was to make some comparisons between sociology in the UK and the discipline in other countries. The first section of the chapter showed the importance attached to methodological diversity and good methods training in determining the success of a national sociology. This suggests that curricular changes such as the Q-Step programme to improve the quantitative methods provision and training of undergraduates in British sociology may be very influential in improving the status of the discipline at an

international scale. The emphasis placed on high-quality methods training by respondents indicated that this may be key to reversing the quantitative deficit in the UK.

The latter section of the analysis described the findings from the surveys distributed to sociologists in the comparator countries. Similar to the UK, sociologists in New Zealand were *more likely* to identify as 'qualitative researchers' as opposed to 'quantitative researchers'. Equally, respondents from New Zealand reported using 'a lot' of qualitative research methods in the last year. However, in contrast to the existing literature exploring sociology in New Zealand, high levels of engagement with quantitative research in the last year were also reported.

The *majority* of the Netherlands sample identified as 'quantitative researchers' and only 7% of respondents classified themselves as 'qualitative researchers'. Over 50% of the sample from the Netherlands reported using 'no' qualitative research methods in the last twelve months.

With regard to research areas and words used to describe the discipline, the New Zealand and the Netherlands sample portrayed the discipline as more homogenous than the UK sample. Despite each country investigated having groups of researchers who may be perceived as marginalised with regard to their methodological preferences, the national sociologies in both New Zealand and the Netherlands seem more unified than in the UK.

One could interpret UK sociologists' panic and lack of unity as a sign of a discipline's strength. For instance, Abbott (2001) argued that fragmentation in a discipline was an indication of the external resources; job vacancies, funding and so on, being rich and therefore a sign that the discipline was able prosper and 'fill' the available space. However, it is documented, and was further evidenced in the qualitative comments given, that the external resources are poor in UK sociology and this is in fact a factor causing concerns over the discipline's future.

While the lack of cohesion and fears over a disciplinary crisis in the UK could be attributed to under-funding and lack of resources, this scarcity of resources and funding appears to also be prevalent in New Zealand. Yet the evidence presented here suggests that sociologists in New Zealand have a more unified understanding of the purpose of sociology and a shared concept of what sociological research is. Equally, the New Zealand sample were more positive about the quality of the output of sociological research in their country compared to the UK sample.

Some UK participants were critical of the notion of 'world-leading' sociology:

> "I am not sure you can think of sociology as a country-specific discipline anymore."
> *(Qualitative Researcher, Female, Lecturer or Equivalent, Aged 35-44)*

> "Sociological research is an international community and researchers read and participate in studies in different countries" *(Mixed Methods Researcher, Male, Professor/Reader, Aged 45-54)*

Respondents described their frustration at making such comparisons, arguing that sizes of individual countries (especially the USA) were more influential in determining the spread and popularity of ideas. Furthermore, many respondents were concerned that they could only comment on work published in English:

> "US (though partly because of size)" *(Qualitative Researcher, Male, Professor/Reader, Aged 55+)*

> "I can only read in English. So my ability to comment on this limited" *(Qualitative Researcher, Female, Postgraduate, Aged 18-34)*

While the most high-profile works from non-English speaking countries may be translated, this observation may go some way toward explaining why the USA, Canada and other majority English speaking countries were listed with greater frequency. Alasuutari (2004) noted that there was an Anglo-American dominance in academia. Not only do English speaking countries hold the largest proportion of the market in terms of publications, but also authors from English speaking countries have greater chances of being published in international journals. Perhaps, more importantly, there is an assumption that academics should cite writers, studies and examples in their work that are accessible and recognisable to the Anglo-American world in order to be successful. Therefore, recognising the countries as 'world-leading' may simply reflect their dominance.

Further to this, the prevalence with which methodology was stated as a reason for a country producing 'world-leading' sociology may be less coincidental than initially assumed. Alasuuatria (2004: 597) described how methodology is universal, and therefore, more likely to attract international attention in comparison to research topics which may be more country specific:

[…] although it may be difficult to get empirical research dealing with a peripheral location published by international publishers, theory and method are universal if you are innovative methodologically, you will get your ideas across the international market

A further criticism of the analysis is the dichotomy of the arts and humanities research and the natural sciences research. This was discussed in detail in Chapter Five (The Nature of British Sociology), however, further to the critique presented there, it was perhaps presumptuous to assume that the opposition was universal and not UK specific. Indeed, in the Netherlands sample there was some confusion and criticism that the disciplines had been framed as oppositional:

"Strange opposition between arts and natural sciences […]" *(Mixed Methods Researcher, Female, Lecturer or Equivalent, aged 45-54)*

"I had to look up what arts and humanities meant […]" *(Quantitative, Female, Aged 18-34)*

The findings and implications derived from the four data analysis chapters will now be discussed in detail in the following discussion chapter.

Chapter 8 : Discussion and Conclusions

"Sociology should be understood as (a) population science (b) the science of society offering the opportunity to synthesise and integrate the social sciences more broadly. The field in Britain is not intellectually diverse enough and lacks creativity, though clearly this is primarily due to being under pressure."

(Quantitative Researcher, Male, Lecturer or Equivalent, Aged 35-44)

1. Introduction

This thesis has examined the current views held by professional sociologists on the nature and purpose of British sociology. Specifically, it has investigated the extent and ways, in which sociologists in the UK are able and willing to explore social issues across the both macro and micro levels. Previously, concerns have been raised regarding the relative absence of quantitative research in the discipline in the UK (Payne et al., 2004; MacInnes et al., forthcoming). This has led some commentators to question the discipline's ability to explain aggregate social phenomena and its capacity to contribute effectively to strategic policy making initiatives. There are some concerns that other disciplines, (such as economics), are now better equipped with the formal methods to conduct such research and are taking over the domain traditionally seen as sociology. Equally, since the turn of the recent century, there has been an increase in social research being conducted outside of academia in the public sector (Savage and Burrows, 2007; Savage, 2009; Savage and Burrows, 2009). Further concerns have been raised that these, more independent, social research centres, are conducting research previously considered the realm of professional sociologists. This has led to worries that the particular, specialist competencies and theoretical insights of mainstream academic sociology is failing to have its voice properly heard.

Chapter Two (Literature Review) summarised previous studies exploring the 'crisis' of number in British sociology (for example; Payne et al., 2004; MacInnes et al., forthcoming). Studies of the output of mainstream UK sociology journals have consistently demonstrated that the discipline is strongly oriented *away* from using quantitative methods. This is deemed problematic for two main reasons. Firstly, there are concerns relating to the discipline's ability to effectively address all social questions. It is suggested that by not fully utilising the

potential of quantitative methods, sociologists in the UK may not be called upon to answer social questions raised by Government and external bodies (Burgess and Bulmer, 1981; MacInnes, 2009; British Academy, 2012). Instead, other disciplines, or academics overseas, may be asked to advise on social challenges and issues faced by contemporary societies, not just in the UK, but also globally. The discipline risks isolating itself not only from these opportunities but, also, from academics in other disciplines or sociologists working in other countries. Secondly, concerns have been raised about the implications of this deficit of quantitative research on sociology students' learning and graduate employment prospects. It is argued that students need to be equipped with the methodological skills to enable them to access *all* literature in their chosen field or specialism and that good quantitative skills are necessary for them to be able to consume critically both academic and non-academic material (Payne et al., 2004; MacInnes, 2009). Further, an understanding of quantitative concepts is important for many of the careers that sociology graduates wish to enter. Yet the literature suggests an ambivalence or anxiety among students toward learning quantitative methods. This resistance has been attributed to many factors including; a lack of substantive examples of good quantitative research in the discipline; poor teaching, and a widely shared fear of numbers.

Importantly, since 2008, the Higher Education Funding Council for England has recognised quantitative social science as a *strategically vulnerable and important subject*. This means that they recognise the value of obtaining quantitative research skills as part of a social science degree programme, and are invested in supporting initiatives designed to improve quantitative methods teaching in the social science disciplines. To this end, several small-scale initiatives, designed to improve the quantitative methods teaching provision in individual universities, have previously been funded by the Economic and Social Research Council (ESRC). However, the impact of these studies has been limited (see for example Dale et al., 2008; Carey et al., 2009; Falkingham et al., 2009; Bullock et al., 2014, and discussion in Chapter Two). Subsequently, the Q-Step programme was launched, with the specific aim of leading on the improvement of quantitative methods teaching of social science students throughout their educational training career (Allebon, 2013; Nuffield Foundation, 2012). It is hoped that such a large-scale investment, across fifteen universities, will enable considerable progress to be made on how best to teach quantitative methods.

It is important to recognise however, investigating the historical development of academic sociology in Britain suggests that the lack of quantitative methods in the discipline is not a recent phenomenon (Burgess and Bulmer, 1981; Bulmer, 1985: Chapter One; Payne et al.,

2004; Payne, 2014a: Chapter Nineteen; MacInnes et al., forthcoming). In the literature review (Chapter Two) it was argued that the present 'crisis' of number is in fact an enduring feature of the discipline in the UK. Hobhouse, the first chair of sociology in 1907 at the London School of Economics (LSE) reflected his own training and background in *philosophy* in his teaching. Some post World War II sociology students, such as A.H Halsey criticised the continuing narrow curriculum at the LSE and, in particular, the noticeable absence of quantitative methods from the curriculum. However, the post War economy in Britain meant funding for social sciences was limited and therefore there was little support for more large-scale quantitative studies of the social world. The expansion of sociology as an academic discipline coincided with 'anti-science' trends in society more broadly, and the birth of feminism in the 1960s and 1970s (Williams, 2000a: Chapter Four). These social influences led to debates over the appropriateness of quantitative, objectifying approaches to researching the social world and instead emphasised more understanding the experiences of (especially) marginalised groups. Qualitative approaches grew in popularity and this was perpetuated in the 1980s by technological advances which enabled interviews to be recorded easily and cheaply (Payne, 2014b). Cost-effective (more qualitative) approaches to social research were made necessary during these austere times, particularly with the Thatcher Government being dismissive of sociology and the possible contribution it could make. This period proved unsettling for many in the discipline (Posner, 2002; Eldridge, 2011; Holmwood, 2014: Chapter Twenty Six). Since the 1990s, the rise of independent research centres in the public sector has meant that academic sociologists no longer have the near monopoly they may have once had over researching social issues (Williams, 2000a; Savage and Burrows, 2007, 2009; Savage, 2009). Some even argued that researchers outside academia are at an advantage as they have access to data on complete populations as opposed to data for specific samples or sub-groups (Savage and Burrows, 2007, 2009; Savage, 2009). It has been further suggested that the continued resistance toward quantitative methods in British sociology can be attributed to the prevailing belief that the discipline *should* be humanistic in its endeavour and approach (Williams et al., 2008; Williams et al., 2015; Williams et al., 2017).

Concerns regarding the quantitative output of sociology are not restricted to the discipline in Britain. Calls have been made for greater communication between countries on examples of best and worse practice with regard to teaching quantitative methods to social science students (Roberts, 2012) and for the present study, the national sociologies of New Zealand and the Netherlands were also explored. Sociology in New Zealand is portrayed as having a weak quantitative tradition (Crothers, 2009; 2008a and see Chapter Two: Literature Review).

The main national sociology journal comprises predominately of findings from small-scale qualitative studies. Further, due to declining student numbers, many sociology degree programmes have now removed compulsory (unpopular) research methods modules to make degree programmes more accessible and economically viable (Crothers, 2009). Also, as in the UK, concerns have been raised regarding the discipline's ability to address and answer policy relevant questions, with increasingly Government ministers turning to economists to conduct aggregate level social research. By contrast, sociology in the Netherlands is considered to be high-quality and academic sociologists maintain a good relationship with Government ministers (de Haan, 2014 and see Chapter One). There are two main theoretical approaches adopted in sociological research in the Netherlands: *figurational* and *explanatory*. The organisation of higher education departments means that there is sufficient intellectual space for these two approaches to exist relatively separately yet simultaneously. Sociology students in the Netherlands are required to complete research methods training as a mandatory part of their degree programme and, on average, they complete more research methods and quantitative research methods modules than their counterparts in the UK and many other countries (Parker et al., 2008).

The current research set out to investigate *professional* sociologists' research practices and beliefs about the nature and purpose of their discipline. This research differs from existing work exploring the place of quantitative research methods in British sociology in three main ways;

> Firstly, previous studies into the quantitative deficit in Britain have explored, the output of sociology as it is published in British mainstream sociology journals; students' attitudes toward learning quantitative methods, and the content of sociology curricula. Previous studies have assumed that the research output of the British mainstream sociology journals (See Chapter Two: Literature Review) reflects the research practices of academics working in the discipline. However, some are critical of this claim (see Platt, 2014b). Therefore, the present study asked *sociologists* to report on their level of engagement with different methods. The current research conducted here overcame this criticism by surveying the authors rather than their output, and went some way toward validating the findings of content analyses of mainstream British sociology journals.

> Secondly, unlike previous studies, this research systematically explored professional sociologists' views of their discipline in an attempt to understand the extent to which

the reported deficit of quantitative research in British sociology can be linked to sociologists' views on the nature and function of the discipline. While some previous survey research has been conducted to investigate attitudes toward quantitative methods and the discipline more broadly, to the author's knowledge, this has all been conducted with university students. Thus, collecting survey data from professional sociologists themselves has enabled discussion of the factors possibly leading to the negative attitudes undergraduates hold toward learning quantitative methods.

Thirdly, previous international comparisons on engagement with quantitative methods in sociology have focused on undergraduates' experiences of research methods teaching and learning in various countries. Again, this study brings an original contribution to the literature by exploring the different views of professional sociologists on the discipline in other countries. In particular, to the author's knowledge, no previous literature has explicitly compared the research practices and views of the discipline held by sociologists in the UK, New Zealand and the Netherlands.

The study used an online survey to gather data on professional sociologists' research practices and attitudes toward their discipline. The design and distribution of the survey was described in Chapter Three (Surveying Professional Sociologists). The ethical implications of the current research and some of the limitations of the chosen method were also considered. This discussion chapter brings together the main findings from the four data analysis chapters. It aims to contextualise these findings within existing literature and research. Finally, some methodological reflections and implications of the study are discussed, with suggestions for future research made throughout the chapter.

2. Summary of Main Findings

The summary of the main findings from the study are organised around the research questions that the project set out to answer.

R.Q 1: Who conducts quantitative research in British sociology?

Consistent with findings from previous studies, the analysis of the data collected suggests that British sociology is strongly *oriented away* from using quantitative research methods. Of the respondents to the UK survey, 9% classified themselves as 'quantitative researchers' compared with just under 60% who identified themselves as 'qualitative researchers'.

Approximately 30% stated that they were 'mixed methods researchers'. Similarly, the *majority* of respondents reported using *no quantitative research methods* in the last year, while the *minority* reported using *no qualitative research methods* in the last year. These findings reinforce the necessity for pedagogic initiatives to ensure that future cohorts of sociologists are able to employ both quantitative and qualitative research methods effectively and appropriately.

Existing literature has considered the negative impacts on and for British sociology of the side-lining of quantitative research (for instance; Burgess and Bulmer, 1981; MacInnes, 2009; British Academy, 2010). Questions have been raised over the expert status of professional sociologists and their ability to investigate social issues with rigorous, scientific methodology. Concerns are expressed over the possibility of sociology losing authority to comment on and explore social issues, to both other academic disciplines and social research centres where there is a greater acceptance and reliance on quantitative methods (Savage and Burrows, 2007; Savage, 2009; Savage and Burrows, 2009). For instance, Payne (2007: 903) described how:

> […] the discipline runs the risk of being so narrow in its methodological expertise and research that many sociologists can only use one approach, and therefore cannot compete intellectually, or for resources, with other disciplines […]

In line with this argument, the analysis in Chapter Four showed that; over 90% of the sample used semi-structured interviews in their research in the last year and, approximately three quarters had published with semi-structured interviews in the last twelve months. Looking at all participants, on average, they reported using 8 different methods, and publishing with 6 different methods, in the last year. Moreover, the average number of methods or approaches used and published with, by respondents who identified as 'quantitative researchers', was statistically significantly *lower* than those who classified themselves as either 'mixed methods' or 'qualitative researchers'. While this may reflect the fact that qualitative research arguably lends itself more to a multi-modal approach than quantitative research, an implication of this finding is that, future initiatives which promote the use of quantitative methods among sociology students must ensure these students are exposed to a greater range of quantitative approaches. This may require greater staffing resources to ensure that a full suite of approaches are sufficiently taught.

In Chapter Four, two-step cluster analysis was employed to investigate whether respondents fell into discrete groups according to the research methods or approaches that they had used

or published with in the last year. The analysis sorted respondents into two groups. The first and larger cluster contained participants who had used and published with qualitative methods, while the second cluster contained participants who had used and published with quantitative methods. This dichotomy and the absence of a third group of participants who had used and published with both qualitative and quantitative methods, proffers very *little support* for the existence of the *strongest variant* of methodological pluralism outlined by Dainty (2007) (described in Chapter Two: Section 2.5: Methodological Pluralism).

Despite this, many participants advocated and supported the importance of using the most appropriate method to answer a research question. For example:

> "I think we [sociologists] blend the best of all methodologies and utilise those best suited to our particular research question/s." *(Mixed Methods Researcher, Female, Senior Lecturer or Equivalent, Aged 35-44)*

> "Depends on the project, what it's about, the methods, as well as funder [...] I would think in a nuanced and careful way for every project, depending on who I was working with, the research question & what I was trying to achieve." *(Qualitative Researcher, Female, Lecturer or Equivalent, Aged 35-44)*

This suggests that there was some support among the participants for the *'complementarism'* view of methodological pluralism (Dainty, 2007).

However, unlike previous studies this research also revealed explicit resistance toward the place and value of quantitative research in the discipline. For instance, participants commented the following,

> "Outside pressures are forcing quantification more to the fore" *(Qualitative Researcher, Female, Senior Lecturer, Aged 45-54)*

> "The problem is that the only 'research' funded is nonsensical quantification" *(Qualitative Researcher, Female, Lecturer or Equivalent, Aged 35-44)*

Using Oakley's (2004) terminology, this qualitative evidence suggests that the discipline is far from achieving 'methodological pacifism'. There were clear tensions over the value of quantitative research in the discipline, and not necessarily agreement among the participants that researchers should be versed in both quantitative and qualitative techniques. The rhetoric used by some participants suggested that quantitative methods were "evil" and oppositional to the purpose of British sociology:

"Personally, I see on the one hand a lot of scepticism about quantification, and some unwillingness to engage, with (still!) a feeling that there is some sort of fundamental divide [...]" *(Mixed Methods Researcher, Male, Professor/Reader, Aged 35-44)*

The language evidenced in the extract above indicates how highly emotive a consideration of appropriate method and methodology still is in the discipline in the UK. The scepticism and distrust toward quantitative methods that many participants commented on can be traced back to the expansion of the discipline and specifically the 'interpretivist' revolution of the 1960s and 1970s (May, 2005; Payne, 2014b). As described in Chapter Two, the plethora of new intellectual perspectives to studying the social world advocated that qualitative approaches were necessary (and in some cases the only way) to investigate social phenomena. The extracts above suggest that distinct and opposing approaches to investigating the social world prevail.

Chapter Four also explored the demographic variables which affected the odds of respondents identifying as a certain type of researcher and the extent to which they reported using quantitative and qualitative methods in the last year. *Gender* was a statistically significant predictor of *use of qualitative research methods* in the last year. Female respondents in the UK sample were more likely to report using 'a lot' of qualitative methods in the last year compared to male participants.

Similarly, in her content analysis of the *British Journal of Sociology*; *Sociological Review,* and *Sociology,* Platt (2007) found that the proportion of female authors using qualitative methods was consistently greater than the proportion of male authors using such approaches. However, Platt (2007) also showed that throughout the development of the discipline, both male and female authors have demonstrated a marked preference for using qualitative over quantitative methods. This may go some way toward explaining why *no* statistically significant relationship was found in the present study, between respondents' gender and researcher identity as a 'quantitative', 'qualitative' or 'mixed methods researcher'.

In Chapter Two, the deficit of quantitative research was briefly described in the context of a wider numeracy deficit in the UK (Hodgen et al., 2010; ACME, 2011; Nuffield Foundation, 2012; Bullock et al., 2014; Hillman, 2014). Building on this, previous literature has suggested that males are more likely to favour and study STEM subjects (science, technology, engineering and mathematics) (Francis, 2000; Van de Wefhorst et al., 2003; Archer et al., 2013). Meanwhile, females tend to opt to study languages and the arts and humanities and

are often depicted as 'maths-avoidant' (Goetz et al., 2013). Both biological and social explanations have been suggested to explain this difference in engagement with number. For instance, biological explanations argue that innate cognitive differences exist between males and females (Govier, 1998). Sex-role theorists argue that children are socialised into gendered behaviours and roles deemed congruent with their sex (Francis, 1999; Dillabough, 2006: 48). Alternatively, poststructuralism suggests that language and discourse shape gender and reinforce gender and power differences (Archer et al., 2013).

It is possible that the higher proportion of female respondents reporting using qualitative research methods in this study and previous research could have resulted from the same or similar processes leading to females distancing themselves from mathematics and STEM disciplines in post-compulsory levels of education. Future research could explore this possible association further. Indeed, it has been argued elsewhere that there are:

> […] widely held assumptions about differences in the research skills, abilities, and preferences of female and male researchers. Traditionally, women have been considered, because of their socialisation, to be more likely than men to be math avoidant, and thus predisposed toward using research techniques that do not require complex mathematical skill. (Dunn and Waller, 2000: 241-242).

An implication of this, is the necessity to consider how pedagogic initiatives designed to increase quantitative methods skills can engage both male and female learners. Specifically, it may be advantageous to demonstrate how quantitative approaches can be utilised to study the place of women in society. This could highlight the importance and value of quantitative methods to female students.

Moreover, Chapter Four showed that *obtaining a qualification abroad* was a statistically significant predictor of *researcher identity* and both *engagement with quantitative and qualitative* methods in the previous year. Participants who had received a qualification abroad were statistically significantly more likely to report being a '*quantitative researcher*' and were more likely to report *higher levels of engagement with quantitative research methods* in the previous twelve months. This suggests that exploring the research methods teaching for sociology qualifications abroad may be a useful strategy in attempting to reverse the quantitative deficit in British sociology. Future research could explore the specific qualifications, levels and countries that influence individuals' engagement with quantitative methods.

With regard to seniority, *junior researchers* were statistically significantly *less* likely to identify as '*mixed methods researchers'*. The modal researcher identity for postgraduates in the study was 'qualitative researcher' while the modal researcher identity for professors and readers was 'mixed methods researchers'. Similarly, half of the participants aged 55 and over stated that they were 'mixed methods researchers' in comparison to less than 30% of those aged 45-54, 35-44 or 18-34. Only one quarter of those aged 18-34 identified as 'mixed methods researchers'. In Chapter Six (Purpose and Future Direction of British Sociology), it was suggested that researchers potentially become more likely to identify as 'mixed methods researchers' with seniority and age. It was argued that greater opportunities to be involved in large, mixed methods research projects may expose more senior researchers to a greater variety of techniques. However, there is no guarantee that this pattern will be mirrored in future career trajectories.

Wiles et al. (2005) found that the need for quantitative methods training increased with seniority. Their research surveyed academics in various social science disciplines in order to identify the training needs of social science academics at different points in their career trajectories. Their findings indicated that most PhD students in the social sciences called upon qualitative methods in their thesis and in line with this, respondents at the start of their careers, and in particular PhD researchers, were more likely to state that more training in qualitative research methods was needed in the social sciences. Conversely, Wiles et al. found that more senior academics were more likely to identify their own training needs in relation to statistics and quantitative data analysis. These authors described how, with career progression, there comes an increased need for advanced quantitative methods skills. This means that more senior academics are often more likely to have skills and experience using both quantitative and qualitative techniques.

Future research could explore, specifically the methods and methodological training needs of sociologists at different levels of seniority to enable a fuller discussion of the research practices of sociologists working in the UK and how these change over a career. Alternatively, to enhance comparability, future research could ask participants to state the methods they used in their PhD thesis.

Overall the implications of these findings are:

- *There is a need for greater quantitative methods teaching provision in sociology to ensure that future cohorts of sociologists are able to draw effectively on both quantitative and qualitative approaches*

- *Sociology undergraduates and postgraduates need to be introduced to a greater variety of quantitative approaches. This may involve a larger staff force to deliver research methods teaching*

- *Quantitative methods teaching needs to be inclusive. It may be particularly advantageous to develop resources to show how quantitative approaches can be used to demonstrate the place of marginalised/subordinated groups in society*

- *It is important to study further and possibly replicate models of methods training in other countries to ensure that future cohorts of sociology students in the UK have the ability and inclination to call upon both quantitative and qualitative approaches*

Possible suggestions for future research include:

- *Explore whether female sociologists are more 'maths avoidant' than male sociologists. In particular, research could investigate levels of maths education and perceived levels of competency with quantitative techniques*

- *Investigate which international qualifications lead to higher levels of quantitative methods engagement or understanding. Specifically think about discipline, level and country*

- *Identify method and methodological training needs of sociologists at different points in their careers and track how these change with progression*

- *Collect data on both current research practices and research methods used in PhD thesis to explore whether research practices are static or change with time*

R.Q 2: Does British sociology have the necessary methodological expertise and interest to investigate contemporary social issues on both the macro and micro levels?

Concerns have been raised over the extent to which sociologists can contribute, particularly on a national, policy focused stage, to research topics that require a quantitative approach (Payne, 2007). Chapter Five (The Nature of British Sociology) showed that the majority of respondents researched social issues on the micro social level. The most frequently researched areas among the respondents included; '*Health and Medicine*', '*Family and Childhood*' and '*Gender and Sexuality*'.

Survey respondents in the UK were asked to differentiate on semantic differential scales how well they believed different definitions and adjectives described British sociology. The participants were clustered into groups based on the scores they gave for each of the adjectives and definitions. The two-step cluster analysis revealed two distinct groups of

participants according to the adjectives that they felt were good descriptors of the discipline. In Chapter Five, it was suggested that these two clusters could represent the two approaches to sociology; 'analytic' and 'critique', as identified by Williams et al. (2017) who suggest that throughout the development of sociology two different approaches have endured. This can be seen through the *Methodenstreit* debate, C.P Snow's Two Cultures debate and, more recently, through increasing calls for a third paradigm to reconcile the differences between positivism and interpretivism.

Participants also fell into two clusters according to the definitions of sociology that they endorsed. Just under 40% of participants endorsed definitions of sociology which emphasised the study of macro social phenomena as very good descriptors of the discipline. The remaining 60% of participants gave low mean scores to definitions of sociology which emphasised the exploration of aggregate social phenomena.

An emerging insight from the study is that the marginalisation of quantitative methods in British sociology may be a symptom of a wider issue of how the discipline is viewed. For instance, the predominance of participants researching micro level issues may represent the fact that sociologists have come to believe that the function of the discipline is to explore individuals' understandings and experiences of the world, as opposed to studying macro social phenomena. Moreover, the majority of the respondents awarded low mean scores to the definitions of the discipline emphasising the exploration of social issues at the macro level. This may indicate that sociologists do not view the study of aggregate social phenomena as the task of sociology. In turn, this may be reinforcing or perpetuating the quantitative deficit in the discipline.

The implication of this is that, in addressing the quantitative deficit in British sociology, pedagogic strategies aimed at increasing students' confidence and exposure to quantitative research alone will not be sufficient. Instead, strategies are also needed to demonstrate the breadth and variety of sociological research.

Other commentators have suggested that academic sociology has become concerned with studying *marginalised* groups as opposed to aggregate level social phenomena. This can be seen as a factor differentiating academic sociology from the research conducted in independent social science research centres, and from sociology as it was originally conceived. For example, discussing the function of academic sociology in the broader context of the rise of social research centres, Osborne et al. (2008) suggested that academic sociology can prosper by ensuring it has a moral resolve, stating:

> Sociology thrives when it adopts a style of thought that renders problems thinkable via an empirical commitment with an ethical purpose (Osborne et al., 2008: 521)

In his 1992 British Sociological Association presidential address, John Westegaard described how the different perspectives to studying the social world that emerged during the expansion of the discipline in the 1960s and 1970s all shared a common concern for using research to understand the experiences of underdogs within society. Others have highlighted the "important beneficial changes" (Stanley, 2005: 2.4) that the findings of sociological research can prompt. Williams et al. (2017: 5) describe how often humanist approaches to sociology in particular, have "[...] a commitment to emancipation, or the realisation of human potential".

The potential of such altruism has often been cited as motivation for students to pursue sociology at undergraduate level (Berger, 1963). However, Peter Berger (1963) argued that this view of the function of sociology is naïve. He stated that while all sociological research aims to promote social action or change, this action is not necessarily humanitarian. Despite this, the present study found that several participants also believed that one of the purposes or aims of sociology was to work with marginalised groups and to help them. For example, respondents' comments included the following:

> "Sociologists should be committed to analysing systems of oppression in ways that can help the oppressed." *(No demographic data provided)*

> "Sociology should help the people and not just promote middle class capitalist ideologies" *(Qualitative Researcher, Male, Lecturer or Equivalent, Aged 35-44)*

Moreover, it was shown in Chapter Six that the majority of the survey participants in the UK sample believed that it was 'important' or 'extremely important' to consider the impacts of their research on potential users. Additionally, over 90% of participants agreed that it was 'important' or 'extremely important' to disseminate their findings to the public.

Separately, this focus on investigating the experiences of marginalised groups may prevent academic sociologists utilising quantitative methods due to problems associated with sample size and lack of suitable datasets[2]. As a result, the focus of sociological research in academia may be, inadvertently, perpetuating the quantitative deficit in the discipline, again, suggesting that the deficit of quantitative methods may be more broadly associated with

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2. Although time-space sampling and respondent-driven sampling have been suggested as techniques to enable collection of data from rare and exclusive populations (Johnston and Sabin, 2010; Semaan, 2010).

professional sociologists' views of the discipline.

Twamley et al. (2016: 13) argued that while many researchers may be committed to improving the social world, the pressure to produce academic publications can force early career academics to leave the profession. Many of the respondents described pressures to 'publish or perish'. For example;

> "British sociology is preoccupied with publishing, and to a lesser extent with getting research money." *(Qualitative Researcher, Male, Senior Lecturer or Equivalent, Aged 45-54)*

> "[…] too much time is devoted to publishing for publishing's sake." *(Qualitative Researcher, Male, Lecturer or Equivalent, Aged 45-54)*

This pressure to publish could also be seen as furthering the inclination of academic researchers to utilise qualitative approaches. For instance, May (2005: 523) described qualitative studies as 'eminently do-able projects', suggesting that qualitative research is often smaller in scale and involves less resources than quantitative research. He also proposed that qualitative projects are more straightforward and therefore junior researchers require less support to complete them. If this is argument is accepted then, in the current audit culture, it seems logical for researchers to opt to publish using qualitative approaches to explore micro-sociological issues over quantitative methods to investigate macro level social phenomena.

Payne et al. (2005) argued that, with the rise in open access data in the UK, secondary quantitative data analysis can now be conducted both cheaply and easily. Additionally, the interfaces of secondary data stores such as the UK Data Archive are increasingly user-friendly. Similarly, sociologists can now produce quantitative online surveys quickly using free software. This demonstrates that quantitative projects can be just as 'do-able' in academia as qualitative projects. Ultimately, 'do-ability' should not override methodological issues (Payne et al., 2005). The method chosen for a research project should suitably address the research question.

The main implications of these findings are:

- *There is a necessity to expose sociology students to a greater variety of sociological research to demonstrate how and why quantitative approaches are necessary to answer social questions*
- *It needs to be stressed to future cohorts of sociologists that 'do-ability' should not override suitability when choosing methods for a research project*

- *Future initiatives designed to increase quantitative methods engagement, should highlight the accessibility of secondary datasets and the ease with which quantitative data can be collected through online survey software*

Ideas for future research include:

- *Investigate the further factors which determine sociologists' choice of method in a research project*

R.Q 3: Is a resistance toward quantitative research methods and skills in British sociology undermining the discipline's status?

A further interesting insight that began to emerge from the present study, was that professional sociology practiced, taught and rewarded in British academia can seem far removed from the original conception of sociology as a science of society. It was described in Chapter Two (Literature Review) that key social thinkers such as Comte, Quetelet and Spencer aimed to develop a science to better understand the creation and formation of complete societies. Equally, with the creation of Section F of the British Association of the Advancement of Science, an emphasis was placed on developing a science of society to study aggregate level social phenomenon utilising formal statistical approaches. This is in contrast to the findings of the present research which suggest that sociology, nowadays, is concerned with studying micro-social issues using qualitative approaches.

In describing the development of British sociology in Chapter Two, it was suggested that sociologists are no longer seen as holding jurisdiction over the exploration of social issues (Savage and Burrows, 2007; Savage, 2009; Savage and Burrows, 2009). Rather, since the 1990s, there has been an emergence of social science research centres in the public sector and an increase in the social data collected routinely by businesses. Often the data that these organisations collect cover more complete samples than those studied by sociologists in academia. For this reason, it has been argued that the study of the social world is becoming ubiquitous and questions are emerging over the comparable quality of data obtained from small-scale studies conducted in academia and the complete samples collected by independent organisations.

In the present study, respondents raised concerns that their discipline was somewhat in decline. Moreover, 70% of participants stated that other academic disciplines were definitely doing research into areas previously seen as research areas of sociology and there were

concerns among the respondents that the Government did not sufficiently acknowledge the work that they produced.

One survey respondent suggested that differences in approaches to studying the social world separated sociology in academia from that conducted in social research centres, stating:

> "I think there is a divide in British sociology around methodology. There is a divide between people who perceive themselves as somehow detached social scientists and those who perceive themselves as committed to forms of critical inquiry, this does not necessarily map onto the quantitative/qualitative divide, but of course sometimes does" *(Mixed Methods Researcher, Female, Senior Researcher or Equivalent, Aged 35-44)*

Furthermore, the current research has demonstrated that few academic sociologists in the UK nowadays, perceive their research to be scientific in its endeavour and approach to studying the social world. Scott (2005) described an increasing hesitation among sociologists in academia to use the word 'science' to describe their research, despite Comte originally envisaging sociology as the 'Queen of Sciences'. For Scott (2005) this hesitation has manifested itself in the growth of the discipline and dispersion of the 'social' into other academic disciplines. Scott (2005) questioned '*what is left*' for sociology departments to practice with the emergence of new specialisms branching off sociology, and the uptake of the discipline in both other academic departments and outside of academia.

This fragmentation can be positive, however, with Scott (2005) suggesting it can lead sociology to new opportunities to ensure that research remains relevant and exciting in our rapidly changing world. At the same time, he cautioned that too much fragmentation or specialism can result in the core of sociology being neglected. In line with this argument, Chapter Five reported that, for the present UK sample, there was a disparity between reported research areas and the areas of sociology seen as core to the discipline. If this discrepancy between the areas sociologists work in and the core areas, widens, not only is the future of sociology jeopardised, but so are the specialist subjects that have branched from it. This is because, as Scott (2005:5.3) explained;

> […] it is only the consideration and articulation of the general conception of sociology by professional sociologists that can ensure the survival of the sociological imagination (Scott, 2005: 5.3).

Therbon (2000) depicted the above tensions using a graph, plotting 'who to talk to?' against 'who to be?' (See figure 8.1). According to this analysis, sociologists fall into one of four quadrants based on who they believe their research is for ('who to talk to?') and how they view their own research in relation to the natural sciences and the arts and humanities ('who to be?'). It is argued that professional sociologists can, potentially, occupy all four of the quadrants of the graph during their career. However, often sociologists find it difficult to relocate once they begin working or training in one particular quadrant.

Therbon described the quadrants as dance floors. While all sociologists can participate or dance in each quadrant, certain styles of sociology, or dance, have become associated with different quadrants. This means the style of research appropriate and rewarded in one quadrant may be deemed unsuitable in another. As a consequence of different styles being rewarded in each quadrant, sociologists can find it increasingly difficult to move to different dance floors throughout their career.

Figure 8.1: Therbon's (2000) Quadrants of Sociological Research
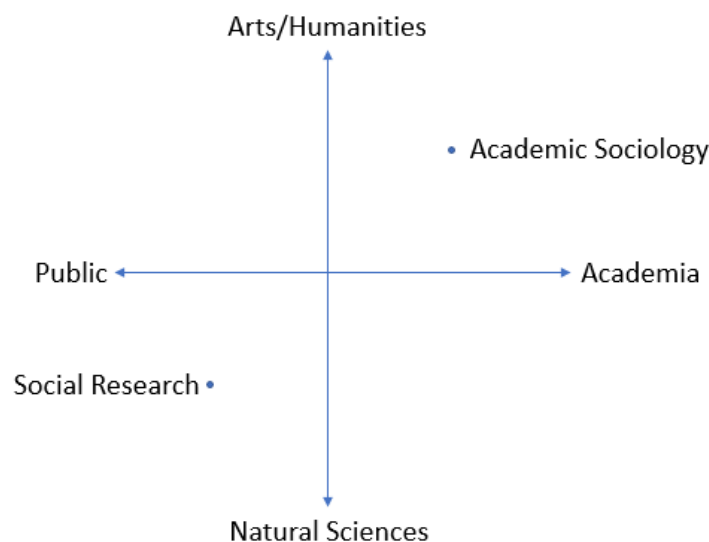
Applying Therbon's (2000) analysis to the findings from the present research and existing literature it seems that sociology, as practiced in academia can be located in the *first* quadrant (top right), while social research outside academia can be placed in quadrant *three* (bottom left) (See figure 8.1). This rather starkly presents academic sociology and social research as oppositional dipoles in the broader world of pursuing sociology.

Future research could explore where sociologists position their own work on Therbon's diagram. This could facilitate further discussion regarding how individuals perceive their work compared to others in the discipline; how they believe their work has come to occupy

a particular quadrant as opposed to others, and what resources, training and other contextual factors might be needed to encourage them to a new 'dancefloor'.

Some implications of these findings include:

- *There is a need for sociologists in the UK to talk more with the 'public' to have greater impact on policy and practice*
- *Sociologists need to consider which approaches to research will enable them to most effectively increase their ability to comment on policy and practice issues*

A suggestion for future research is:

- *Interview sociologists and investigate where they position themselves and others in the discipline using Therbon's graph*

R.Q 4: How does sociology in Britain compare to the discipline in other countries?

R.Q 5: What can be learnt from looking at sociology in other countries?

Chapter Seven (The Quantitative Experience of UK, New Zealand and the Netherlands) aimed to contextualise the findings from the UK study by making some international comparisons. Respondents in the present survey chose a number of different countries as examples which they believed were producing 'world-leading' sociological research. The reasons they gave for naming a particular country were often with reference to methods or methods training used in those places. On the one hand, the frequency with which excellent methods and methods training were listed could represent the fact that this is a universal feature of sociology in all countries (Alasuuatria, 2004: 597). Alternatively, this reporting could suggest that methods and methods training are being broadly contrasted, by implication, as a comparatively weak area of British sociology.

New Zealand and the Netherlands were chosen as comparator countries as previous literature suggested that they have lower and higher levels of engagement respectively with quantitative research compared with the discipline in the UK. The study found that over 50% of respondents in New Zealand classified themselves as 'qualitative researchers', while less than 10% identified as 'quantitative researchers'. Meanwhile, three-quarters of respondents from the Netherlands stated that they were 'quantitative researchers' and only 7% classified themselves as 'qualitative researchers'.

Similar to the UK, the discipline in New Zealand is strongly oriented toward the use of qualitative methods. Over three-quarters of the respondents in New Zealand reported using

'a lot', or 'some', qualitative methods in the last year compared to approximately 45% of participants who reported using 'a lot' or 'some' quantitative research methods in the last twelve months. Conversely, just under a third of respondents from the Netherlands stated that they had used 'a lot' or 'some' qualitative methods in the last year. Over 90% of participants from the Netherlands reported using 'a lot' or 'some' quantitative research methods in the last year.

Compared to the UK sample, there was *little evidence of contested views or attitudes* toward methods or approaches in sociological research in either of the comparator countries. There appeared to be greater unity regarding the function and character of the discipline in each of the comparator countries. This suggests that 'methodological pacifism' has been achieved in these countries and that more in-depth study of these countries may be warranted to understand how this 'pacifism' has developed and is maintained. However, the small sample sizes, particularly in New Zealand, prevent any definitive conclusions from being drawn.

Chapter Seven also described how sociology in the Netherlands is seen as closer to the natural sciences than the arts and humanities. This was particularly apparent with regard to the methodology and analytical tools of Dutch sociology. Over 50% of participants in the Netherlands reported that both the methodology and analytical tools of sociology were closer to the natural sciences than the arts and humanities. This would place Dutch sociology in one of the bottom quadrants of Therbon's (2000) diagram (see figure 8.2). de Haan (2014) described how sociologists in the Netherlands are increasingly engaging with Government. The words that the Dutch survey respondents used to describe their discipline reinforced this idea that sociology in the Netherlands is influential upon policy and practice. For example, participants described the discipline as "policy oriented" and "relevant". This suggests that academic sociology in the Netherlands can be seen nearer to the public end of Therbon's graph. However, the increased pressure to internationalise the discipline has led to a growing emphasis on publishing in anglophone journals (de Haan, 2014), which means that sociology in the Netherlands can be seen balancing a position between the two ends of the spectrum of the public/academic axis of 'who to talk to'.

Meanwhile, the respondents in New Zealand positioned sociology as closer to the arts and humanities with regard to subject content; public utility; status; methodology, and analytical tools. With this in mind, sociology in New Zealand would be plotted in one of the top quadrants of Therbon's diagram (see figure 8.2). This is in line with findings from research conducted in the 1970s which concluded that sociology in New Zealand was humanistic in its

approach and endeavour (Bottomley, 1974). For all the dimensions studied, the respondents in New Zealand were more likely to see sociology as closer to the arts and humanities than the UK respondents. Therefore, sociology in New Zealand needs to be positioned higher in the graph than the discipline in the UK (see figure 8.2). Chapter Two described how the findings of sociological research are often not seriously considered by Government in New Zealand. Moreover, Crothers (2008a) described how with the introduction of the Performance Based Research Fund, academics in New Zealand are facing increasing pressure to publish in highly regarded international journals. The evidence suggests that sociology in New Zealand is closer to the academic end of the dichotomy of who sociological research should talk to (see figure 8.2).

Figure 8.2: Therbon's (2000) Quadrants of Sociological Research: UK, New Zealand and the Netherlands
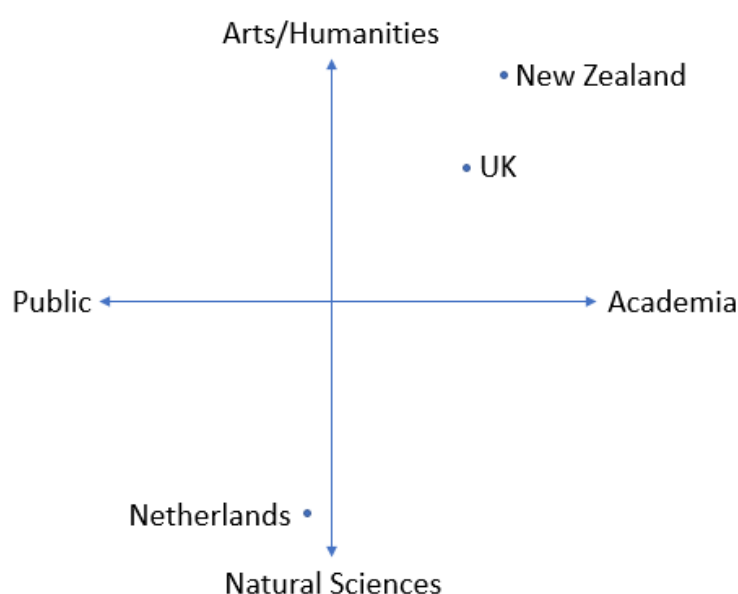
A possible association between opting to study sociology at undergraduate level and use of quantitative approaches is beginning to emerge as an important factor from the data. As explained in Chapter Two, New Zealand is currently experiencing difficulties recruiting students to the discipline (Crothers, 2008a). Meanwhile, in the Netherlands, students are placed on different subject trajectories while in school which later determine whether or not they have the option to study sociology at degree level (UK NARIC, 2015). The Basic Education Act (Basisvormin) 1993 established four different channels of secondary education for Dutch students to follow depending on their skills. Academic children tend to receive either a general secondary education referred to as '*hoger algemeen voortgezet*' (HAVO) or a pre-university education referred to as '*voorbereidend wetenschappelijk onderwijs*' (VWO). In

the later years of their secondary education, students studying either HAVO or VWO specialise in one of four subject profiles. The four subject profiles are, culture and society, economics and society, science and health and science and technology. *Mathematics* at various levels of complexity are *compulsory* for all subject profiles for the VMO diploma and also compulsory for all the subject profiles apart from 'culture and society' pathway for those studying the HAVO diploma. Choice of subject profile determines access to disciplines in higher education.

It seems possible that the gatekeeping mechanisms to accessing sociology at undergraduate level in the Netherlands may be leading to the development of a discipline that is more oriented toward the use of quantitative methods. Conversely, the open access in New Zealand may be preventing the discipline from engaging with quantitative research.

The study was too small in its scope to claim with any degree of certainty that gatekeeping mechanisms can shape the nature of a national sociology. However, the data suggests this would be an interesting association to explore in the future. If this was found to consistently be the case, it may have implications for the focus of initiatives aimed to improve the quantitative skills of sociology students in the UK. Therefore, it may be necessary to redirect resources to improving the quantitative skills of students who have yet to commence studying at degree level. Previously, calls have been made for increased numerical teaching and learning for post-16 students in the UK, even if they choose not to study mathematics as an A-level qualification (Nuffield Foundation, 2012). Looking at the pre-university curriculum in countries such as the Netherlands may provide examples of how these changes can be effectively implemented.

With the above evidence in mind, the main implication of the findings is:

- *Gatekeeping mechanisms and pre-university curriculum may have a role in shaping students' views of the discipline*

Future research could:

- *Explore the national sociologies of New Zealand and the Netherlands more fully*
- *Compare and contrast the pre-university curriculum and entry requirements to study sociology at degree level in different countries*

3. Discussion

Evaluating the evidence, it seems that sociologists have become trapped in a self-sustaining circle where speculative, subjective thinking based on small-scale studies has been rewarded through publications. It has already been noted that mainstream British sociology journals predominately consist of qualitative studies. This picture is reinforced by the present study, with respondents being more likely to report using and publishing with qualitative approaches as opposed to quantitative techniques in the last year. Comments from the survey respondents also suggested that qualitative work is often privileged in the mainstream output of the discipline, for example:

> "I see British sociology as mostly qualitative and theoretically-informed, with a significant influence of post-structuralism and some continental/French theory (e.g. Bourdieu), and a strong focus on issues of inequality. At least this is the sort of thing that gets published in British mainstream journals." *(Qualitative Researcher, Male, Lecturer or Equivalent, Aged 18-34)*

This bias toward qualitative methods may well be having an adverse effect on sociology students' engagement with quantitative research and concepts. If this is the case, there are implications for academic staff in both their research methods teaching and their own continual professional development. It also reinforces the need for pedagogic initiatives where quantitative methods are embedded strategically across the curriculum (Williams et al., 2015; Brookfield, 2016; see discussion in Chapter Two). Embedding research methods across the curriculum would signal to students that quantitative research can be effectively applied and used in different research areas. Secondly, if current teaching staff lack the confidence to support students using quantitative research methods as a result of their own experiences and training, they should be afforded adequate training opportunities to develop these skills.

Veblen's notion of 'trained incapacity' has emerged as useful idea to help understand and explain the findings from the present study as well as previous research into the quantitative deficit in British sociology (Veblen, 1993; Wais, 2005). Veblen described how pecuniary interests dominate in industry and are often central in decision making processes. This means that other factors are often overlooked or not considered. Veblen argued that this 'blindness' to alternatives can be inadvertently taught and transmitted (rather than by design), suggesting that often the training an individual receives leads them to accepting the institutionally preferred goals and actions necessary to achieving these goals, to the

exclusion of all other alternatives. Often the time, effort and commitment necessary to achieve these goals have an 'opportunity cost'. The time, and 'lost' chance of developing a range of skills and intellectual capacities means that what possibly began as an option for how people might be trained can become habituated into a narrower sense of competencies, with no later opportunities or time to invest in any appropriate retraining. Hence the term 'trained incapacity'. Indeed, Rees et al. (2007: 770) highlight the necessity in restructuring the working environment of educational researchers and social scientists more generally, to encourage researchers to diversify "the range of methods across which they are competent" as opposed to simply pursuing training opportunities which are successful "at deepening researchers' knowledge of methods with which they are already familiar".

Veblen went on to state that habitual practices are easier and faster for humans to apply in practice and are often thus viewed as more efficient and preferable by both the trainee and trainer. However, this can lead to inflexibility and to other important insights being neglected. With regard to the present study, when staff lack confidence and, indeed, in some cases a belief in the value of statistics to study the social world, this could lead to a 'hidden curriculum' where the application of quantitative approaches by default, falls by the wayside.

Pulling together the findings from this study, and previous literature, it seems possible that the way in which sociology undergraduates are constructed by academics' own educational, research and teaching experiences could be contributing to a 'trained incapacity' to effectively and confidently utilise quantitative methods or concepts in the discipline. Specifically, Holton (2009) employed the notion of 'trained incapacity' to explain how gaps in sociology teaching staffs' methods and methodology knowledge result in students being unable to adopt or use certain research methods to study the social world. The training that students receive contributes to fuelling their later research interests and understanding of how to study the social world. This leads to a perpetuating cycle entrenching these skills deficits so that it becomes increasingly difficult to address them. To effectively reverse them, requires a much broader systemic review of schooling and teacher training.

Veblen believed that 'blindness' to different processes could be further exacerbated by specialisation. Previous literature has described British sociology as *fragmented* (Scott, 2005), illustrating how, since the expansion of the discipline in the 1960s and 1970s a number of specialisms have developed. Evidence in the present study underlined this:

"Currently the discipline has become fragmented into specialisms […] Few UK sociologists ask the big questions hence the decline in theory and historical and comparative sociology." *(Mixed Methods Researcher, Male, Professor/Reader, Aged 55+)*

Therefore, it may be that the fragmented nature of the discipline in the UK is contributing to a trained incapacity toward quantitative methods. The study found that the reported research areas for the UK sample were *more diverse* than those reported for the samples in both the Netherlands and New Zealand (where the levels of resistance toward quantitative methods also appeared to be lower). Equally, there was a disjunction between the areas that the UK respondents reported as core to the discipline and the research areas that they worked in. This could represent the numerous new fields and subdisciplines that have emerged in British sociology.

Scott (2005) stated that to retain sociology's core, and to maintain the sociological imagination, it is necessary to ensure that sociology students in the UK are exposed to a broad curriculum. It is suggested that by delivering narrow, specialised training, teachers "are essentially crippling the ability of students to think as social scientists" (Wallerstein, 2000: 33). Specifically discussing AS/A level sociology curricula, Scott (2005: 6.3) argued that:

Students and their teachers can be highly selective in what they cover as part of a sixth-form training in sociology, and they are not oriented to a rounded and holistic view of the subject […] Many teachers have themselves been trained in the shrinking university syllabus, and they pass this constricted view of the subject on to their students.

Likewise, Canadian sociologist, Harry Perlstadt (1998), described how with increased specialism in sociology university degree programmes, students are graduating with a trained incapacity to effectively link theory to research findings or vice versa. The specialism students have pursued, influences their ability to either consider the implications of their research with regard to existing substantive literature or can have a negative impact on their ability to evaluate chosen methods of data collection and analysis. Perlstadt (1998) also highlighted how specialised sociology courses often consist of both general texts, with unconnected topics and papers that are very niche, and often promote a particular methodological orientation. Again, this lack of understanding of the range of perspectives which can explain social events, can lead to a trained incapacity for students following these programmes and can subsequently limit graduates' employability. Perlstadt (1998) argued

that often graduates who enter employment in research centres, business and charities need to receive additional training to compensate for a skills gap from their university training.

Similarly, Scott (2005) called for a more co-ordinated sociology curriculum. He suggested that the current modularity of undergraduate sociology programmes in the UK means that students can now 'pick and choose' highly specialised courses. This results in graduates who are often not adequately exposed to core sociological issues or topics and therefore "graduate with a very narrow view of the subject that they have studied" (Scott, 2005: 6.2). Hence, an alternative possibility to overcome this potential trained incapacity to quantitative research in British sociology could be a reduction in module choices for students or less specialised degree pathways. As described in Chapter Two, Goldthorpe (2016) also called for the focus of sociological research to be reduced. Specifically, he advocated that the rejection of statistics and quantitative research in British sociology is resulting in the loss of disciplinary boundaries between sociology and the humanities, and especially history. He took issue with the number of small-scale studies investigating aspects of social life for particular sub-groups of social actors, and suggested instead a move toward aggregate-level study of populations. However, Goldthorpe cautioned readers that such a transition would result in the reduction of the discipline with regard to both substantive issues and methodological procedures.

The implication of this, is the necessity for sociologists in academia to work in teaching teams to produce an undergraduate curriculum that regardless of specialisms, ensures that students are equipped for graduate level employment. This is reminiscent of calls made by Savage and Burrows (2009) for academic sociologists to put internal disputes and differences to one side to ensure the future of the discipline. To facilitate a more co-ordinated approach to the training of sociology students, the Quality Assurance Agency subject benchmark may need to be more prescriptive. Separately, the notion that specialism within the discipline can create and entrench skills gaps provides further support for a more integrated curriculum and specifically with reference to this project, the embedding of quantitative methods and concepts in substantive modules and vice versa.

However, other commentators are critical of the success of a broader curriculum in ensuring the preserve of the sociological imagination. For instance, Stanley (2005) explained that previous experience demonstrates that students often find compulsory courses 'boring' and that specialism can be a productive way of engaging students with sociology. There is a risk that such compulsory courses can result in students being 'spoon-fed' information for which they cannot see the relevance. Indeed, Burawoy (2004: 1612) insisted that it was important

to find space in academia for "subordinate sociologies […] alongside a hegemonic sociology". More broadly, advocating for a more integrated quantitative and qualitative approach to sociological research by university staff, may be deemed problematic when institutional pressures encourage (or force) researchers to specialise (May, 2005; Payne, 2007). Increasingly, sociology departments in the UK are structured thematically with resources being distributed to different specialisations (May, 2005). May (2005: 526) described specialisation as "an implicit requirement to advancement" in British sociology.

However, Stanley's (2005) belief that students often consider compulsory courses as 'boring' seems insufficient reasoning for the rejection for a move toward a more general curriculum. Arguably, Stanley (2005) may be taking a pessimistic stance in assuming that all students find all core curriculum boring. If this view is accepted, and it is believed that students do find compulsory modules boring, this would suggest that a united effort by all to produce and deliver an innovative, rigorous, and, engaging common sociology curriculum is long overdue and a priority for the discipline. In this case, the Q-Step project which aims to improve the quantitative training of sociology students with long-term, high investment into resources including staff, may become an exemplar in terms of the scope of initiatives needed to reinvigorate the undergraduate sociology curriculum.

The present study did not however, provide support for this transmission of ideas and values about the discipline, particularly with regard to quantitative methods. Chapter Six showed that the youngest age cohort in the study (those aged 18-34) were the most likely to report using 'a lot' of quantitative methods in the last year. They were also the participants most likely to identify as 'quantitative researchers' (12.2%). Meanwhile, the eldest cohort (those aged 55 and over) had the smallest proportion of participants using 'a lot' of quantitative research methods in the last year and less than 5% of the respondents stated that they were a 'quantitative researcher'. This problematizes the evidence that quantitative research methods are a trained incapacity in British sociology. The difference in level of engagement with quantitative methods among the age cohorts could represent the success of initiatives since the early 2000s to improve the quantitative methods training of sociology students. Indeed, Wiles et al. (2005) suggested that the differences in identified training needs of social scientists of different levels of seniority in their study, may align with policy changes and educational initiatives. For instance, these authors questioned whether the lack of demand for quantitative methods training from junior social scientists compared to more senior academics, may reflect the changes in postgraduate mandatory training following the

publication of the Roberts Review (2002). This Report was published following calls from the Government for more qualified STEM competent employees. It put forward the necessity for change to both school and university training across a number of disciplines to improve the UK's productivity and innovation performance. It is possible that social scientists who received their training after the publication of the report, received more quantitative methods training. This could explain why the youngest respondents in the study were more likely to identify as quantitative researchers than their older peers.

Alternatively, the association between age and engagement with quantitative research could be an indication of researchers becoming less methodological niche with age. Through experience and the increased opportunities to be involved in large studies, older researchers may become more confident to employ a range of methods and approaches to studying the social world. The different intellectual pressures faced by academics at the different stages of their careers may impact on the likelihood of them engaging in large, multi-stage, multi-method research projects. Junior scholars, particularly postgraduates, are required to complete individual work for assessment and progression. With the increased pressure to specialise, these researchers may deem it necessary to develop expertise in a particular method or approach to studying the social world (Payne, 2007). Conversely, more senior academics face pressure to publish alongside other institutional requirements such as teaching, and therefore need 'do-able projects' (May, 2005). These pressures may subsequently lead to greater collaboration and reduction in focus on specialised methodological skills or substantive areas. As a result, the current study seems to suggest that the infrastructure of academia also has a role in reproducing this trained incapacity within the discipline. Indeed, May (2005) further argued that increasing the quantitative technical competence of sociologists may not result in greater quantitative output. This is because the infrastructure of academia can prevent sociologists from developing new skills and can thereby encourage them to opt for well-versed 'safe' methods and approaches to ensure that they get publications.

Separately, exploring participants' views of British sociology according to age and seniority, younger or more junior respondents were more likely to see the discipline as close to the natural sciences than older or more senior survey participants. Furthermore, almost 40% of those aged '18-34' belonged to the 'analytic' adjective cluster, compared to just over 30% of those aged 55 and over. This could represent a greater acceptance of quantitative approaches traditionally advanced in the natural sciences to studying the social world among

younger researchers. This could be as a result of receiving their training alongside the recent rise of 'digital data' to describe and study social trends.

Despite this, younger respondents were also much more likely than their older colleagues to endorse definitions of sociology which emphasised the study of micro social interactions as opposed to macro social processes. While studies at the micro level have previously been associated (Kelle, 2005) with qualitative approaches, Bruno et al. (2014) describe a very recent *new trend* toward using *statistical approaches* to enable '*activism*' and *emancipation*. These authors have coined the term 'statactivism' to show how political activism and critique can be achieved through statistical analysis. Hence, potentially a new small 'third culture' is emerging in British sociology, where in making the most of technological advances, and routinely collected data in the twenty first century, sociologists will increasingly call upon quantitative approaches to, study marginalised groups, understand lived experiences and promote social change. Indeed, since the publication of Williams et al. (2017) paper, which discussed some of the broader issues to emerge from this research - a seminar was convened with some world-leading ethnographers. This discussion concluded with *qualitative researchers* agreeing on the necessity for greater high quality research methods training, and calling for significant collaboration between researchers with high level statistical competencies and qualitative researchers with extensive knowledge of ways of possibly interpreting the outputs, all of this to be focused into an enhanced education for both undergraduates and postgraduates.

Thus, what emerges from this research is that the under-utilisation of quantitative research in British sociology is deeply rooted in the way the discipline has developed and is organised in academia. However, this must be considered alongside the broader decline in number skills across the entirety of the education system in the UK (See Chapter Two: Literature Review; Section 2.3: Broader problem with number in the UK). For instance, looking specifically at Wales (where my home institution is based) Reid (2011: 446) highlighted that "too many Welsh pupils are lacking essential [...] numeracy skills". The Chief Inspector of Schools in Wales and the Welsh Education Minister, described this problem as being derived from a 'systemic failure' to maintain standards and to make effective progress over many years. Therefore, the solution to the quantitative methods deficit in British sociology may lay in a more holistic, multi-institutional approach, to ensure that these skills are properly developed in an integrated fashion at much earlier ages than present attempts at remedial

quick fixes at undergraduate level. This challenge then, could be taken as one for the whole profession of teaching sociologists, and teaching more broadly.

4. Methodological Reflections

A strength of the present study was the use of the online survey mode to capture sociologists' views of their discipline. This chosen mode ensured that the data was collected in a time and cost-effective manner and was ready to analyse almost immediately. Furthermore, the anonymous nature of the research and the absence of a researcher in the data collection process arguably improved the quality of the data by allowing participants to be more open with their responses than they may have been in a face-to-face interview. This was particularly apparent when asking respondents how long they had been a member of the British Sociological Association. For instance, participants stated the following:

> "[…] BSA is quite pointless and the conferences uninspiring- they messed up my membership payments so I just let it fall away- and it has had no effect on my career what so ever […]" *(Qualitative Researcher, Female, Professor/Reader, Aged 55+)*

> "[…] the standard of […] British journals - the BSA journals in particular - has declined […] neither I nor my institution want me to continue publishing in British journals." *(Mixed Methods Researcher, Male, Lecturer or Equivalent, Aged 18-34)*

Similarly participants used the additional comments boxes to voice controversial views of the discipline. For example:

> "It is mostly (and with some very worthwhile exceptions) preoccupied with irrelevant unscientific obscure pretentious nonsense […]" *(Quantitative Researcher, Male, Professor/Reader, Age 55+)*

> "Too many journal papers […] are dull as dishwater to read" *(Mixed Methods Researcher, Male, Professor/Reader, Aged 55+)*

The examples above suggest that even with issues not deemed to be overly sensitive, the online survey mode enabled respondents to be more outspoken about the state of British sociology. Indeed, one participant was particularly concerned that their identity be kept anonymous given their responses to previous questions;

> "Please keep my comments confidential from Malcolm[3]. He can probably work out who I am […]"

3. Malcolm Williams supervised this project and is heavily involved with the Q-Step project and previous work exploring the place of quantitative research in British sociology.

This rich qualitative data aided the analysis and helped to contextualise the main findings.

A further strength of the project was that participants were able to identify themselves as 'quantitative', 'qualitative' or 'mixed methods researchers' and to comment on the extent to which they had used these different methods or approaches in the last year. Previous studies, which have explored the deficit of quantitative research, have analysed the output of mainstream sociology journals (for example; Payne et al. 2004; MacInnes et al., forthcoming). However, Platt (2014b) cautioned that the output of sociology journals may not reflect the practice of the sociologists. While arguments have been made to refute this claim (see Chapter Two: Section 2.1: Output of the mainstream British sociology journals), the current study provided an alternative way to gauge the magnitude and significance of the perceived problem.

As discussed in Chapter Three (Surveying Professional Sociologists), one of the limitations of the study was the difficulty involved in determining the sample representativeness, and subsequently the generalisability of the findings to all sociologists in the UK. Two factors have contributed to this issue. Firstly, the *absence of a complete sampling frame* of sociologists in the UK to which the sample can be compared. Chapter Three described the limitations of each of the auxiliary datasets of sociologists obtained for this project. These ranged from; approximations and rounded numbers instead of exact figures; lists incorporating sociologists in higher education institutions only (while not including those working outside of universities), to lists including only people working within departments which offered sociology degrees. Secondly, a negative impact of having the survey distributed under the auspices of the British Sociological Association was that the survey link was made public. This meant that potentially anyone with a copy of the link could respond and that participants could partake in the research multiple times if they wished to.

Moreover, the survey suffered from a moderate drop-out rate and consequent item non-response. As discussed in Chapter Three, a limitation of the online survey mode is that participants can be easily distracted from the task at hand (Callegaro et al., 2015: 24). Of the participants who started, approximately 45% completed the whole survey. For future research using an online survey, it may be beneficial to incorporate a 'save and continue' feature to enable participants to return to the survey at various time points as opposed to respondents having to complete the survey in one go. However, currently there is a deficit

of research exploring the effectiveness of 'save and continue' features on online surveys and therefore the impact of a 'save and continue' feature on completion rates is unknown.

A further limitation of the research was that only countries where English was spoken could be included as comparator countries. Many of the participants in the UK study suggested that the sociological research in France and Germany was 'world-leading', and therefore these countries would have been interesting to study in more detail. Previous work comparing the research methods training across sociology undergraduate degrees in different countries, shows that students in other countries are mandated to study more research methods modules than those included in the present study (Parker et al., 2008). That research noted that students in Spain, on average, are required to study approximately five general research methods modules and approximately one and half quantitative methods modules. This is compared to the Netherlands (the country which demonstrated the highest level of engagement with quantitative research methods in the present study) where students study, on average, approximately three general research methods modules and a further three quantitative research modules. Future investigation, with less monetary, time and resource constraints could explore the possibility of conducting the research in other languages.

As mentioned in Chapter Seven, some of the participants in the Netherlands did not understand the dichotomy between the natural sciences and the arts and humanities presented in the survey. It is not clear whether this is because the disciplines are not generally perceived as oppositional in the Netherlands, or whether there was an issue with the language or terminology used. While similar questions have used this dichotomy in previous studies, it may have been advantageous to have additionally piloted the survey in each of the comparator countries before distribution. This could have revealed the issue that some participants in the Netherlands were indeed encountering with these questions and the questions could have been subsequently reworded to avoid any confusion.

While the present study has gone some way toward identifying the potential mechanisms leading the current marginalised place of quantitative methods in British sociology, future research is needed to test for the presence, stability and durability of these mechanisms.

5. Chapter Summary

Overall this chapter has brought together the main findings from the present study and demonstrated how they align with existing literature. While only providing a 'snap shot' of

current practices and views of the discipline held by sociologists, this study is a vital base-line study from which further longitudinal research can be conducted. The study has produced,

i)   a comprehensive database of sociologists based in sociology departments in UK higher education institutions, which will be available for future research and has the potential to be revised and updated on a future basis. This in itself may give further data about the processes operating in the teaching of sociology in higher education institutions in the UK

ii)   a current 'state of play' profile of UK sociology - reinforcing previous literature by highlighting the marginalised position of quantitative methods in the discipline.

iii)   an update profile of research practices of sociologists in New Zealand and the Netherlands.

The study showed that less than 10% of the UK participants identified as 'quantitative researchers'. This evidence offers support for existing studies which argue that quantitative methods are marginalised in British sociology (see for example; Payne et al., 2004; MacInnes et al., forthcoming). Moreover, several demographic factors including seniority, age, gender and obtaining a qualification overseas show a statistically significant influence on the odds of participants engaging with quantitative or qualitative research methods and the odds of them identifying as a 'quantitative', 'qualitative' or a 'mixed methods researcher'.

Furthermore, and in line with existing literature (Payne, 2014b), the study demonstrated a preference for researching *micro* sociological research topics. Also, participants were more likely to endorse descriptors of the discipline that emphasised the study of social issues on the micro social level. Additionally, the analysis found that survey respondents clustered according to how well they believed particular adjectives described British sociology. Broadly, based on these cluster groupings, respondents could be seen as endorsing either an analytic approach or critique approach to sociology. Similarly, three discrete groups of participants could be detected based on how closely respondents viewed sociology to the natural sciences or the arts and humanities. Based on the evidence presented in Chapter Five (The Nature of British Sociology), it is suggested that these diverging views on the nature and function of the discipline could be resulting in the side-lining of quantitative methods. Following the argument of Williams et al. (2017), it is suggested that the

interpretivist turn in sociology in the 1960s and 1970s led to a prevailing and enduring belief among the majority of respondents that the discipline should be humanistic in its approach to studying the social world.

Many survey participants feared that areas previously seen as the domain of sociology were being researched in other disciplines and that British sociology was somewhat in decline as an academic discipline. The data in Chapter Six (Purpose and Future Direction of British Sociology), showed that participants' research practices and views of the discipline varied according to age and seniority. However, little difference in research practices and attitudes were apparent between those participants who held teaching contracts and those who did not.

The study also showed that strong methods and methodological training was often stated as a reason for believing a country was able to produce 'world-leading' sociological research. It was demonstrated that while quantitative researchers and qualitative researchers are marginalised in sociology in New Zealand and the Netherlands respectively, compared to the UK the discipline was less fragmented in these comparator countries. Respondents in the comparator countries showed less concern over the future of the discipline.

Specifically, this chapter has adopted Veblen's notion of 'trained incapacity' to suggest that the absence of quantitative methods in British sociology cannot be solely attributed to individual factors of sociologists or sociology students (Veblen, 1993; Wais, 2005). Instead, the deficit of quantitative research in the discipline can be seen as partly the product of wider social and academic pressures. For instance, it has been proposed that pressures to publish and to specialise in academia are resulting in the side-lining of quantitative research in preference for small-scale qualitative projects that are deemed more achievable. However, while platforms such as the UK Data Archive and the availability of online survey software means that quantitative research is more feasible than ever, following Veblen's thinking, a 'blindness' to these developments has meant that qualitative research projects are still widely conceived as more 'do-able'.

Suggestions for future research have been made throughout this chapter and the previous chapters. Specifically, it has been suggested that given the impact of obtaining a qualification abroad had on respondents' use of quantitative methods in the present study, it may be advantageous to conduct further research into the methods training of sociology students in other countries. In particular, future research could explore which countries

and what level of qualification have the greatest impact on levels of engagement with quantitative methods and approaches. This information could potentially inform curriculum initiatives designed to improve students' confidence in learning and utilising quantitative research methods. Moreover, some of the UK respondents stated that sociological research produced in non-Anglophone countries was 'world-leading' research. Future research with greater resources could investigate these countries. Alternatively, more in-depth research into the discipline in both the Netherlands and New Zealand could help further contextualise the current UK findings. In particular, it may be advantageous to collect primary data on the teaching of research methods in both these countries and data on sociology students' attitudes toward learning research methods in these countries.

Moreover, it has been suggested that it may be beneficial to explore whether research practices and preferences remain static throughout a sociologists' career or whether there is a tendency for researchers to change their research practices with experience in the discipline. Future research in the UK, could work with senior academics to track the development of their research and research practices across their career. This could also have benefits for those designing and delivering professional development training courses for sociologists.

Furthermore, the disjunction between the prevailing belief held by participants that British sociology should be a methodologically pluralistic discipline with the lack of evidence of methodological pacifism found in the present study or in previous studies exploring the content of mainstream British sociology journals, suggests that future research into how researchers understand the terms; methodological pluralism, methodological pacifism and mixed methods research could be insightful.

Finally, it may be interesting to replicate the research with sociologists working in independent social research centres. This would allow more concrete comparisons to be drawn between academic sociology and non-university based social research.

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Appendix 1: Survey UK

This survey should take approximately 10-15 minutes to complete.

It is completely confidential and participation is voluntary. You may withdraw from the study at any point. A copy of the anonymised dataset will be offered to the BSA and the UK Data Archive.

Ethical approval for this survey has been granted by Cardiff University School of Social Sciences Research Ethics Committee.

To start the survey, please click the next page arrow.

If you have any questions about the survey or the research project, please do not hesitate to email me at the address below.

Thank you for your help with this research,

Charlotte Brookfield (BrookfieldC@cardiff.ac.uk)
PhD Researcher

Supervisors: Malcolm Williams (WilliamsMD4@cardiff.ac.uk) Sin Yi Cheung (CheungSY@cardiff.ac.uk)

 If you have concerns regarding the conduct of the study, then please contact the Chair of the School Research Ethics Committee:

Professor Adam Hedgecoe,
Director, Cardiff Centre for the Ethical & Social Aspects of Genomics and Epigenetics (Cesagene),
School of Social Sciences
Cardiff University
Glamorgan Building
Cardiff

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What is Sociology?

1. The following definitions of sociological research have been published by sociological associations and professional sociologists. Please indicate on the scales below how representative you think the definitions are of British sociological research, where 1 indicates a very poor description and 10 indicates a very good description.

Sociology is the study of how society is organised and how we experience life

Very Poor Description ━━━━━━━━━━━━━━━━━━━ Very Good Description

Sociology provides substantive explanations of the social world which nevertheless are understandable in terms of everyday life

Very Poor Description ━━━━━━━━━━━━━━━━━━━ Very Good Description

Sociology is the scientific study of social aggregations

Very Poor Description ━━━━━━━━━━━━━━━━━━━ Very Good Description

Sociology tells us how society works

Very Poor Description ━━━━━━━━━━━━━━━━━━━ Very Good Description

Sociology explores macro-sociological issues such as large scale social movements, demographics, economics and politics

Very Poor Description ━━━━━━━━━━━━━━━━━━━ Very Good Description

Sociology explores micro-sociological issues such as micro-level human behaviour

Very Poor Description ━━━━━━━━━━━━━━━━━━━ Very Good Description

Sociology involves thinking hard about human action and social structure using a variety of tools

Very Poor Description ━━━━━━━━━━━━━━━━━━━ Very Good Description

2. To what extent do you believe, that in general, British sociology is preoccupied with the following?

	Not at All Preoccupied	Not Very Preoccupied	Somewhat Preoccupied	Preoccupied	Very Preoccupied
Quantification					
Classics					
New digital methods of data collection					
Description					
Historical theorists					
Methodology					
New figures					

3. Which areas of sociology do you see as core to the discipline? Please give 4 examples (e.g. Gender, Employment, Research Methods), listed in order of importance.

Area 1:
Area 2:
Area 3:
Area 4:

4. Please indicate on the following scales how well you think the following adjectives describe sociology, where 10 indicates a very good description and 1 indicates a very poor description.

Scientific

Very Poor Description ━━━━━━━━━━━━━━━━━━ Very Good Description

Creative

Very Poor Description ━━━━━━━━━━━━━━━━━━ Very Good Description

Artistic

Very Poor Description ━━━━━━━━━━━━━━━━━━ Very Good Description

Reflexive

Very Poor Description ━━━━━━━━━━━━━━━━━━ Very Good Description

Value-Neutral

Very Poor Description ━━━━━━━━━━━━━━━━━━ Very Good Description

Objective

Very Poor Description ━━━━━━━━━━━━━━━━━━ Very Good Description

Tentative

Very Poor Description ━━━━━━━━━━━━━━━━━━ Very Good Description

Problem-Solving

Very Poor Description ━━━━━━━━━━━━━━━━━━ Very Good Description

Descriptive

Very Poor Description ━━━━━━━━━━━━━━━━━━ Very Good Description

Problem-Generating

Very Poor Description ━━━━━━━━━━━━━━━━━━ Very Good Description

5. Using the statements below, place in order the issues that you think British sociologists are currently most concerned about, where 1 means most concerned and 12 is least concerned.

1) The advancement of society
2) Changing the world for the better
3) Eradicating poverty
4) Understanding society in a systematic way
5) Helping combat the spread of infectious disease
6) Reducing crime
7) Preventing climate change
8) Understanding communities
9) Informing curriculum development
10) Understanding the causes and effects of the economic recession
11) Managing the ageing population
12) Combating terrorism and improving national security

The Three Cultures

6. Please indicate whether you see sociological research as closer to natural science research or arts and humanities research for each of the dimensions listed below:

Subject Content

Arts and Humanities ━━━━━━━━━━━━━━━━━━━━━━ Natural Sciences

Methodology

Arts and Humanities ━━━━━━━━━━━━━━━━━━━━━━ Natural Sciences

Analytical Tools

Arts and Humanities ━━━━━━━━━━━━━━━━━━━━━━ Natural Sciences

Status

Arts and Humanities ━━━━━━━━━━━━━━━━━━━━━━ Natural Sciences

Public Utility

Arts and Humanities ━━━━━━━━━━━━━━━━━━━━━━ Natural Sciences

Impacts of Sociological Research

7. Do you believe that ideas from sociology are being used in other disciplines?

- ○ Definitely Not
- ○ Probably Not
- ○ Uncertain
- ○ Probably
- ○ Definitely

8. Do you believe that other academic disciplines are doing research into areas previously seen as the areas of sociological research?

- ○ Definitely Not
- ○ Probably Not
- ○ Uncertain
- ○ Probably
- ○ Definitely

9. How important do you think it is to consider the following before starting research?

	Not at all important	Not very important	Neither important or unimportant	Important	Extremely important
How you can engage with potential users of your research					
The potential economic impacts of your research					
The potential policy impacts of your research					
The potential media impacts of your research					
The potential impacts of your research on yourself					
The potential impacts of your research on participants					

10. Do you believe that funding sources impact upon the degree to which you consider the following before you start your research?

	Definitely not	Probably not	Uncertain	Probably	Definitely	I do not undertake research
How you can engage with potential users of your research						
The potential economic impacts of your research						
The potential policy impacts of your research						
The potential media impacts of your research						
The potential impacts of your research on yourself						
The potential impacts of your research on participants						

How important is it that the UK Government appoints a chief social science advisor to ensure that it is fully informed about the social implications and impacts of new policies?

- ○ Not at all important
- ○ Not very important
- ○ Neither important nor unimportant
- ○ Important
- ○ Extremely important

11. How effective do you think a chief social science advisor would be at informing the UK Government on the impact that proposed policies would have on the following?

	Very Ineffective	Ineffective	Neither Effective nor Ineffective	Effective	Very Effective
Climate Change					
Crime					
Education					
National Security					
Social Mobility					
Social Cohesion					
Spread of Infectious Diseases					
The Economy					

12. How important is that sociological researchers disseminate their work to the following groups?

	Not at all important	Not very important	Neither important nor unimportant	Important	Extremely Important
The Media					
Businesses					
Government					
The Public					
Charities and NGOs					

13. To what extent do you believe that British sociology is in decline as an academic discipline?

○ Not at all
○ Not much
○ Somewhat
○ Much
○ Very Much

Sociology in Your Country

14. How does the quality of British sociological research compare to sociology in other countries?

○ A great deal better than other countries
○ Better than other countries
○ Similar to other countries
○ Poorer than other countries
○ A great deal poorer than other countries

15. You indicated that you believe that sociological research in your country compares positively with sociology in other countries. Why is this?

16. You indicated that you believe that sociological research in your country compares poorly with sociology in other countries. Why is this?

You and Your Research

17. Primarily what kind of researcher do you consider yourself?

○ Quantitative
○ Qualitative
○ Mixed Methods
○ I do not undertake empirical research

18. Which of the following methods and/or approaches have you a) used in research b) have published with in the last year? (Select 'yes' or 'no' for each)

	Used in Last Year		Published with in Last Year	
	Yes	No	Yes	No
Action Research				
Content Analysis				
Document Analysis				
Ethnographies				
Experiments				
Focus Groups				
Longitudinal Qualitative Research				
Longitudinal Quantitative Research				
Participant Observations				
Participatory Methods				
Secondary Analysis of Existing Qualitative Datasets				
Secondary Analysis of Existing Quantitative Datasets				
Semi-Structured Interviews				
Social Network Analysis				
Standardised Interviews				
Structured Observations				
Surveys				
Unstructured Interviews				

19. In the last year to what extent have you used quantitative research methods in your research?

○ A lot
○ Some
○ A little
○ None

20. In the last year to what extent have you used qualitative research methods in your research?

○ A lot
○ Some
○ A little
○ None

21. Which areas of sociology best characterise your work? Please give 4 examples (e.g. Gender, Employment, Research Methods) listed in order of importance.

Area 1:
Area 2:
Area 3:
Area 4:

22. Are you:

○ Male
○ Female
○ Other
○ Would prefer not to say

23. Which age category do you fall in?

○ 18-24
○ 25-34
○ 35-44
○ 45-54
○ 55-64
○ 65+

24. In what type of organisation do you currently work or study? Please select an answer and state the name of the organisation.

○ University/College _____
○ Non-University Research Institute (e.g. NatCen, NFER) _____
○ Government/Other Public-Sector Organisation _____
○ Voluntary Sector Organisation _____
○ Other (Please Specify) _____
○ Retired

25. Which category best describes your level of seniority?

○ Professor
○ Reader
○ Senior Lecturer/Senior Research Fellow
○ Lecturer/ Research Fellow or Associate
○ Student- Postgraduate
○ Student- Undergraduate
○ Do not work in the university sector (Please write in your job title)
_____

26. What is your academic employment function?

○ Research Only
○ Research and Teaching
○ Teaching Only
○ Neither Research Nor Teaching (Please Specify) _____

27. Have you obtained any qualifications outside of the UK? If yes, please specify which level of qualification.

○ Yes (Please Specify) _____
○ No

28. In total, how many years have you been a member of the British Sociological Association? (Need not be successive or consecutive years)

○ I have never been a member
○ Less than a year
○ 1-5 years
○ 6-10 years
○ 11-20 years
○ 21-30 years
○ 31-40 years
○ 41-50 years
○ 51+ years

Thank you for completing this survey. Your contribution is highly valued.

If you have any questions about the survey or the research project, please do not hesitate to email me at the address below.

Many thanks once again,

Charlotte Brookfield
brookfieldc@cardiff.ac.uk

Appendix 2: International Survey

Dear Colleague,

I am a doctoral researcher at Cardiff University. My research is exploring professional sociologists' views about their discipline: its direction, its character and the nature of its methods. My aim is to understand which topics and research methods sociologists see as important. I would therefore be grateful if you will complete the following survey.

I have already conducted a survey with professional sociologists in the UK and I am hoping to compare the findings with the views of professional sociologists in New Zealand/the Netherlands.

The survey should take approximately 5 minutes to complete. Your contribution is greatly valued.

Ethical approval for this survey has been granted by Cardiff University School of Social Sciences Research Ethics Committee. The survey is completely confidential. Participation is completely voluntary and you may withdraw from the study at any point. A copy of the anonymised dataset will be offered to the British Sociological Association and the UK Data Archive.

By starting the survey you are giving consent to your responses being used in research projects.

If you have any questions about the survey or the research project, please do not hesitate to email me or my supervisors at the addresses below.

Thank you for your help with this research,

Charlotte Brookfield

brookfieldc@cardiff.ac.uk

Supervisors: Malcolm Williams (MD4@cardiff.ac.uk) Sin Yi Cheung (CheungSY@cardiff.ac.uk)

 If you have concerns regarding the conduct of the study, then please contact the Chair of the School Research Ethics Committee:

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Director, Cardiff Centre for the Ethical & Social Aspects of Genomics and Epigenetics (Cesagene),
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The Nature of Sociology

Please indicate whether you see sociological research as closer to natural science research or arts and humanities research for each of the dimensions listed below:

Subject Content

Arts and Humanities ━━━━━━━━━━━━━━━━━━━━━━ Natural Sciences

Methodology

Arts and Humanities ━━━━━━━━━━━━━━━━━━━━ Natural Sciences

Analytical Tools

Arts and Humanities ━━━━━━━━━━━━━━━━━ Natural Sciences

Status

Arts and Humanities ━━━━━━━━━━━━━━━━━━━ Natural Sciences

Public Utility

Arts and Humanities ━━━━━━━━━━━━━━━━━ Natural Sciences

Sociology in Your Country

Which key words would you use to describe sociology in your country?

How does sociological research in your country compare to sociology in other countries?

- ○ A great deal better than other countries
- ○ Better than other countries
- ○ Similar to other countries
- ○ Poorer than other countries
- ○ A great deal poorer than other countries

Your comments-Anything you wish to add:

You indicated that you believe that sociological research in your country compares positively with sociology in other countries. Why is this?

You indicated that you believe that sociological research in your country compares poorly with sociology in other countries. Why is this?

You and Your Research

Primarily what kind of researcher do you consider yourself?

○ Quantitative
○ Qualitative
○ Mixed Methods
○ I do not undertake empirical research

Which areas best characterise your work? Please give 4 examples listed in order of importance.

Area 1:
Area 2:
Area 3:
Area 4:

In the last year to what extent have you used quantitative research methods in your research?

○ A lot
○ Some
○ A little
○ None

In the last year to what extent have you used qualitative research methods in your research?

○ A lot
○ Some
○ A little
○ None

Are you:

- ○ Male
- ○ Female
- ○ Other
- ○ Would prefer not to say

Which age category do you fall in?

- ○ 18-24
- ○ 25-34
- ○ 35-44
- ○ 45-54
- ○ 55-64
- ○ 65+

Which category best describes your level of seniority?

- ○ Professor
- ○ Associate Professor/Reader
- ○ Senior Lecturer/Senior Research Fellow
- ○ Lecturer/Assistant Professor/Research Fellow
- ○ Assistant Lecturer
- ○ Student- Postgraduate
- ○ Student- Undergraduate
- ○ Do not work in the university sector (Please write in your job title) _____
- ○ Other (Please Specify) _____

What is your academic employment function?

- ○ Research Only
- ○ Research and Teaching
- ○ Teaching Only
- ○ Neither Research Nor Teaching (Please Specify) _____

Your comments- Anything that you wish to add:

Thank you for completing this survey. Your contribution is highly valued.

If you have any questions about the survey or the research project, please do not hesitate to email me at the address below.

Many thanks once again,

Charlotte Brookfield
(brookfieldc@cardiff.ac.uk)

Appendix 3: Weighted data output

Chapter Four: The place of quantitative research in British sociology

Table 0.1: Type of research methods used last year

	Used Quantitative Methods (%)	Used Qualitative Methods (%)
A Lot	16.2	61.5
Some	25.4	25.8
Very Little	21.1	7.4
Not at All	37.3	5.3

Table 0.2: Primarily what kind of researcher do you consider yourself?

	Frequency (%)
Quantitative	9.0
Qualitative	59.4
Mixed Methods	30.5
I do not undertake empirical research	1.1

Table 0.3: Variables included in regression models

Variable	Description	Parameters	Percentage
Gender	Whether a respondent is male, female or other	**1=Male**	37.9%
		2=Female	62.1%
Age	Whether a respondent is aged 18-34, 35-44, 45-54 or 55+	**1=18-34**	31.5%
		2=35-44	25.4%
		3=45-54	22.0%
		4=55+	21.1%
Organisation Type	Whether a respondent worked/studied in a college or university or worked outside academia	**1=University/College**	97.0%
		2=Other	3.0%
Russell Group	Whether a respondent worked/studied in a Russell Group institution or not	**1=Yes**	53.0%
		2=No	47.0%
Employment Contract	Whether a respondent has a teaching contract or not	**1=Research Only**	19.9%
		2=Teaching/Teaching & Research	80.1%
Seniority	Whether a respondent is a student (undergraduate or postgraduate), lecturer (or equivalent), senior lecturer (or equivalent) or professor/reader (or equivalent)	**1=Postgraduate**	24.1%
		2=Lecturer	28.6%
		3=Senior Lecturer	24.5%
		4=Professor/Reader	22.8%
Qualification outside UK	Whether a respondent has obtained a qualification outside of the UK	**1=Yes**	31.6%
		2=No	68.4%
BSA Member	Whether a respondent is a member of the British Sociological Association	**1=Yes**	66.7%
		2=No	33.3%
BSA Membership Length	The length of time a respondent has been a member of the British Sociological Association	**Never**	33.3%
		5 years or less	32.6%
		6-10 years	12.9%
		11-20 years	13.0%
		21+ years	8.2%

Table 0.4: Predictor variables and dependent variables (row percentages)

		Last Year Quantitative				Last Year Qualitative				Researcher Identity		
		A lot (%)	Some (%)	A little (%)	None (%)	A lot (%)	Some (%)	A little (%)	None (%)	Quantitative (%)	Qualitative (%)	Mixed methods (%)
Gender	Male	17.5	28.1	23.4	31.0	**53.5**	**30.8**	**8.1**	**7.6**	**10.5**	**51.9**	**37.7**
	Female	15.7	23.8	19.6	40.9	**66.2**	**22.8**	**6.8**	**4.3**	**8.2**	**64.5**	**27.2**
Age	18-34	22.4	19.6	21.0	37.1	59.9	26.8	7.7	5.6	**12.1**	**61.7**	**26.2**
	35-44	15.7	25.2	21.7	37.4	68.1	20.7	8.6	2.6	**11.7**	**59.5**	**28.8**
	45-54	14.9	27.7	15.8	41.6	62.6	25.3	6.1	6.1	**6.2**	**69.1**	**24.7**
	55+	9.6	31.9	26.6	31.9	53.7	31.6	6.3	8.4	**4.3**	**48.9**	**46.7**
Organisation Type	University/College	16.6	24.7	21.4	37.3	62.1	26.0	7.2	4.7	9.3	60.6	30.2
	Other	15.4	53.8	15.4	15.4	53.8	15.4	7.7	23.1	8.3	41.7	50.0
Russell Group	Yes	20.7	21.8	17.8	39.7	63.6	21.6	8.0	6.8	13.0	59.8	27.2
	No	13.7	23.4	24.4	38.6	60.4	28.4	7.6	3.6	7.2	62.4	30.4
Employment Contract	Research Only	20.7	26.8	23.2	29.3	65.9	24.4	8.5	1.2	11.1	54.3	34.6
	Teaching/Teaching & Research	16.4	23.7	21.6	38.3	61.3	26.2	7.0	5.5	9.0	62.4	28.6
Seniority	Postgraduate	14.3	25.7	22.9	37.1	69.8	24.5	2.8	2.8	**6.7**	**59.0**	**34.3**
	Lecturer	18.3	21.4	22.2	38.1	63.0	20.5	10.2	6.3	**13.6**	**64.8**	**21.6**
	Senior Lecturer	18.5	22.2	21.3	38.0	55.6	33.3	8.3	2.8	**9.8**	**62.7**	**27.5**
	Professor/Reader	14.0	31.0	18.0	37.0	60.6	25.3	6.1	8.1	**5.1**	**56.1**	**38.8**
Qualification outside UK	Yes	**23.1**	**22.4**	**23.1**	**31.3**	**69.4**	**15.7**	**8.2**	**6.7**	14.6	55.4	30.6
	No	**12.8**	**27.1**	**20.1**	**39.9**	**59.4**	**30.2**	**6.2**	**4.2**	**6.3**	63.0	32.5
BSA Member	Yes	**14.7**	**28.4**	**18.1**	**38.8**	63.1	22.1	8.1	6.7	8.2	57.1	34.7
	No	**19.5**	**19.5**	**26.8**	**34.2**	61.2	27.1	7.0	4.7	9.6	61.5	28.9
BSA Membership Length	Never	19.5	19.5	26.8	34.2	63.1	22.1	8.1	6.7	6.2	57.1	34.7
	5 years or less	17.1	23.3	21.9	37.7	59.9	27.2	8.8	4.1	14.7	60.1	25.2
	6-10 years	13.8	27.6	13.8	44.8	72.9	18.6	5.1	3.4	5.3	70.2	24.6
	11-20 years	10.3	32.8	15.5	41.4	58.6	31.0	5.2	5.2	7.0	68.4	24.6
	21+ years	13.9	41.7	13.9	30.6	48.6	32.4	8.1	10.8	2.8	41.7	55.6

Percentages in **bold** indicate statistically significant associations

Table 0.5: Exponential regression coefficients for each multinominal regression model

Explanatory Variables	Model 1: Last Year Quantitative						Model 2: Last Year Qualitative						Model 3: Research Identity			
	A lot		Some		A little		A lot		Some		A little		Qualitative		Mixed Methods	
	Exp (B)	S.E	Exp (B)	S.E	Exp (B)	S.E	Exp (B)	S.E	Exp (B)	S.E	Exp (B)	S.E	Exp (B)	S.E	Exp (B)	S.E
Gender																
Male	n/a	n/a	n/a	n/a	n/a	n/a	**0.36**	0.47	0.52	0.49	0.55	0.59	**0.47**	0.37	0.77	0.40
Age																
18-34	1.77	0.45	0.52	0.36	0.70	0.36	n/a	n/a	n/a	n/a	n/a	n/a	0.25	0.77	**0.12**	0.80
35-44	1.25	0.48	0.69	0.36	0.58	0.39							0.38	0.74	0.25	0.77
45-54	0.95	0.51	0.64	0.37	0.50	0.41							1.20	0.76	0.50	0.78
Seniority																
Professor/Reader	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.38	0.80	0.30	0.83
Senior Lecturer													**0.29**	0.63	**0.20**	0.67
Lecturer													0.40	0.52	**0.20**	0.57
Qualification outside the UK																
Yes	**2.20**	0.31	1.07	0.28	1.49	0.29	0.65	0.47	**0.30**	0.51	0.74	0.59	**0.32**	0.38	**0.40**	0.40
	R^2=.048 (Cox and Snell), .051 (Nagelkerke). Model x^2(12)=20.52, p=.05						R^2=.041 (Cox and Snell), .048 (Nagelkerke). Model x^2(6)=17.81, p<.05						R^2=.097 (Cox and Snell), .117 (Nagelkerke). Model x^2(16)=42.41, p<.05			
Exponential regression coefficients in **bold** indicate statistical significance																

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Table 0.6: Which of the following methods or approaches have you a) used in research b) published using in the last year?

Research Method/Approach	Used Yes (%)	Published Yes (%)
Action Research	24.3	15.3
Content Analysis	56.8	40.6
Document Analysis	72.0	60.1
Ethnography	59.9	43.4
Experiment	12.5	8.4
Focus Group	63.4	43.6
Longitudinal Qualitative Research	30.8	24.8
Longitudinal Quantitative Research	25.4	18.7
Participant Observation	58.9	42.7
Participatory Methods	45.4	32.4
Secondary Qualitative	37.0	26.7
Secondary Quantitative	53.0	61.3
Semi-Structured Interview	90.1	75.9
Social Network Analysis	20.0	10.1
Standardised Interview	40.5	29.8
Structured Observation	30.5	23.5
Surveys	65.0	49.2
Unstructured Interview	61.0	46.6

Table 0.7: Which of the following methods or approaches have you a) used in research b) published using in the last year?

	Cluster 1: Qualitative Researchers (%)	Cluster 2: Quantitative Researchers (%)
Last Year Qualitative		
A lot	74.3	25.7
Some	56.9	43.1
Very Little	26.1	73.9
None At All	33.3	66.7
Last Year Quantitative		
A lot	**39.1**	**60.9**
Some	**72.9**	**27.1**
Very Little	**79.4**	**20.6**
None At All	**61.0**	**39.0**
Researcher Identity		
Quantitative	**10.7**	**89.3**
Qualitative	**70.3**	**29.7**
Mixed Methods	**70.9**	**29.1**
Percentages in **bold** indicate statistical significance		

Chapter Five: The Nature of British Sociology

Table 0.8: Which areas of sociology best characterise your work? Please give four examples, listed in order of importance

Most Important		2nd Most Important		3rd Most Important		4th Most Important	
Area 1	Frequency (%)	Area 2	Frequency (%)	Area 3	Frequency (%)	Area 4	Frequency (%)
Gender & Sexuality	11.3	Gender & Sexuality	11.1	Research Methods	12.6	Research Methods	16.2
Health & Medicine	9.9	Health & Medicine	7.3	Gender & Sexuality	11.6	Social Inequalities, Cohesion & Diversity	9.1
Race, Ethnicity & Migration	7.5	Research Methods	7.2	Family & Childhood	6.4	History & Philosophy	7.5
Research Methods	6.3	Race, Ethnicity & Migration	7.0	Race, Ethnicity & Migration	5.8	Health & Medicine	6.1
History & Philosophy	5.8	Social Inequalities, Cohesion & Diversity	5.6	Health & Medicine	5.6	Gender & Sexuality	5.6

Table 0.9: Which areas do you see as core to sociology? Please give four examples, listed in order of importance

Most Important		2nd Most Important		3rd Most Important		4th Most Important	
Area 1	Frequency (%)	Area 2	Frequency (%)	Area 3	Frequency (%)	Area 4	Frequency (%)
Social Inequalities, Cohesion & Diversity	20.2	Research Methods	19.2	Research Methods	14.8	Research Methods	18.8
History & Philosophy	19.2	Social Inequalities, Cohesion & Diversity	13.3	Social Inequalities, Cohesion & Diversity	12.8	Social Inequalities, Cohesion & Diversity	10.6
Gender & Sexuality	11.7	Gender & Sexuality	13.1	Gender & Sexuality	11.5	History & Philosophy	7.0
Research Methods	11.5	Race, Ethnicity & Migration	7.5	Race, Ethnicity & Migration	9.0	Work & Employment	6.9
Social Class	9.4	History	7.4	History & Philosophy	5.7	Gender & Sexuality	6.3

Table 0.10: Which areas of sociology best characterise your work? Summarised

	Research Areas	Frequency (%)
1	Social Inequalities, Social Cohesion and Diversity	16.3
2	Health and Medicine	10.1
3	Race, Ethnicity and Migration	9.8
4	Work and Employment	7.1
5	Family and Childhood	6.7
6	Gender and Sexualities	6.1
7	Identity	5.4
8	Science and Technology	3.9
9	Violence, Crime, Deviance and Policing	3.8
10	Ageing and the Lifecourse	3.5

Table 0.11: Which areas do you see as core to sociology? Summarised

	Core Discipline Research Areas	Frequency (%)
1	Social Inequalities, Social Cohesion and Diversity	28.6
2	Race, Ethnicity and Migration	13.3
3	Work and Employment	10.9
4	Power	7.0
5	Gender and Sexualities	5.6
6	Identity	5.0
7	Health and Medicine	3.3
8	History and Philosophy	2.7
9	Structure and Agency	2.2
9	Social Class	2.2
10	Language (including arts, culture and media)	1.7

Figure 0.1: Please indicate on the scales below how well you think that the following adjectives describe British sociological research in general, where 1 indicates a very poor description and 10 indicates a very good description.
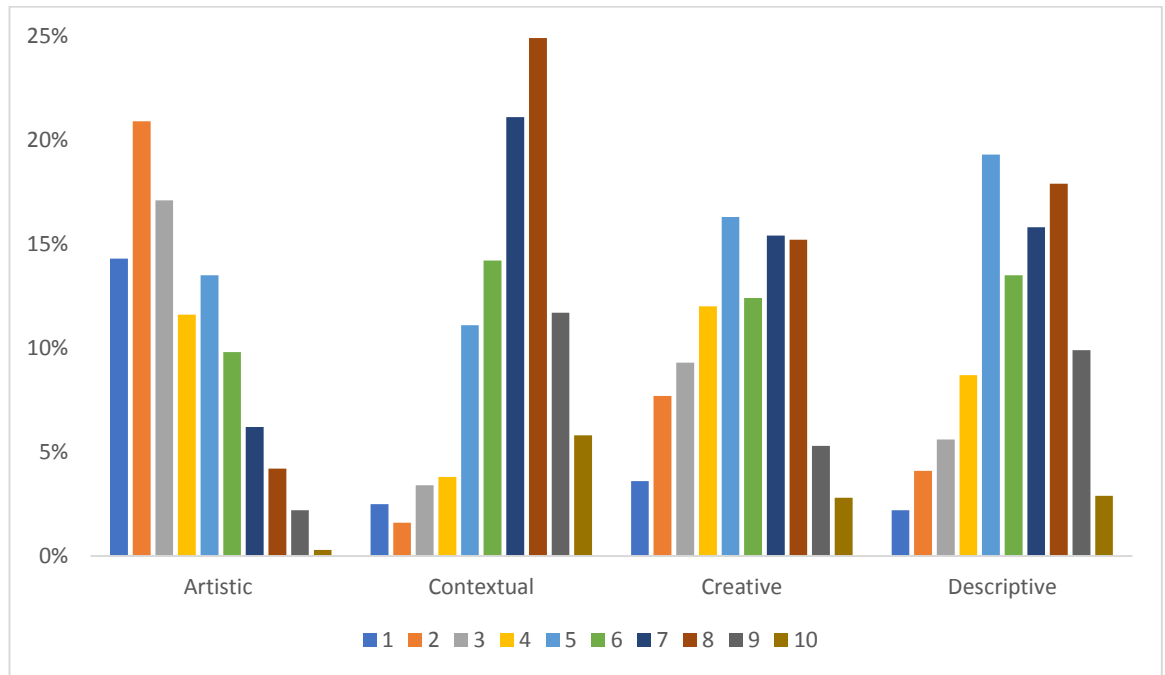
Figure 0.2: Please indicate on the scales below how well you think that the following adjectives describe British sociological research in general, where 1 indicates a very poor description and 10 indicates a very good description
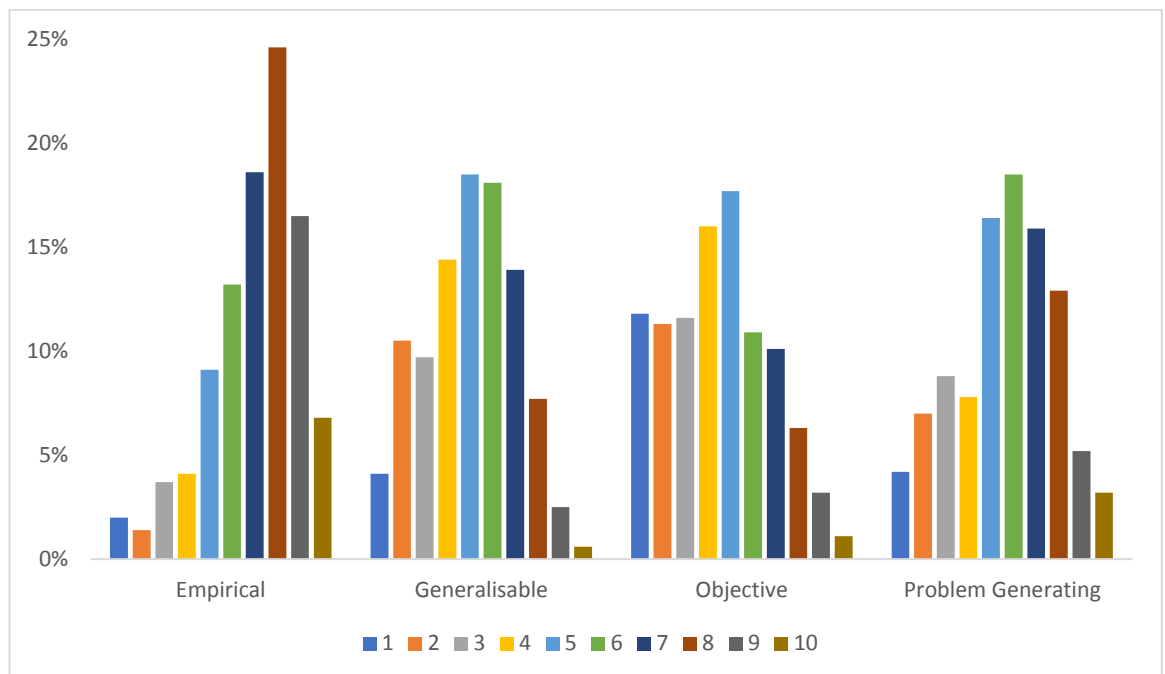
Figure 0.3: Please indicate on the scales below how well you think that the following adjectives describe British sociological research in general, where 1 indicates a very poor description and 10 indicates a very good description
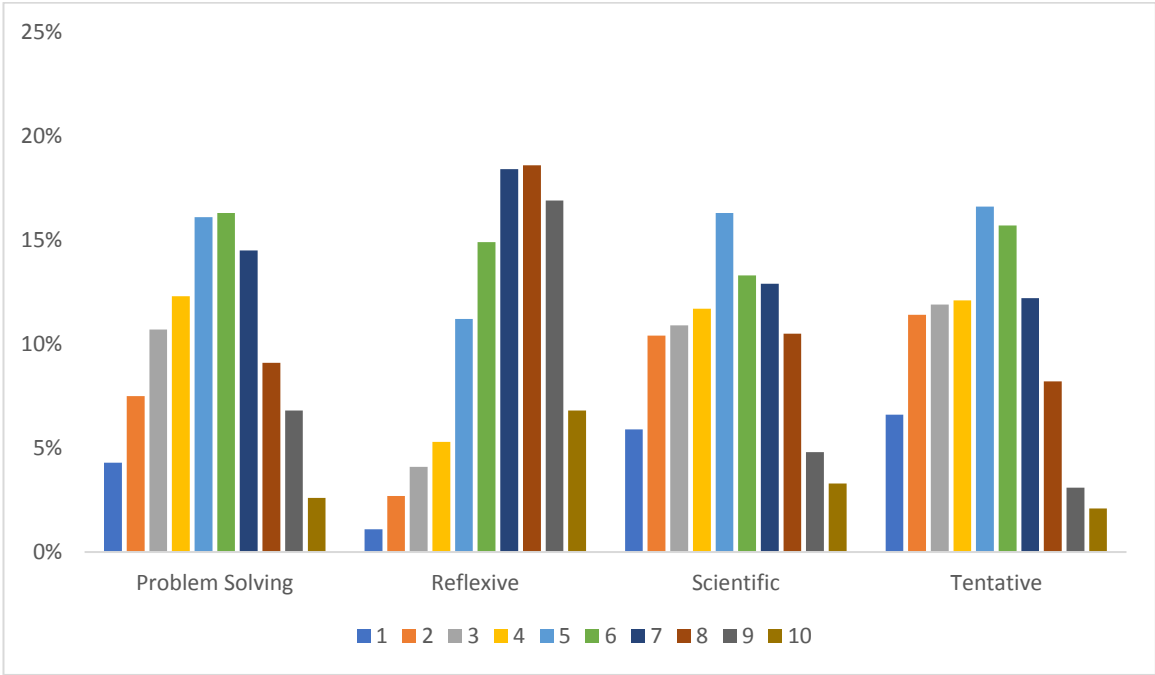
Figure 0.4: Please indicate on the scales below how well you think that the following adjectives describe British sociological research in general, where 1 indicates a very poor description and 10 indicates a very good description
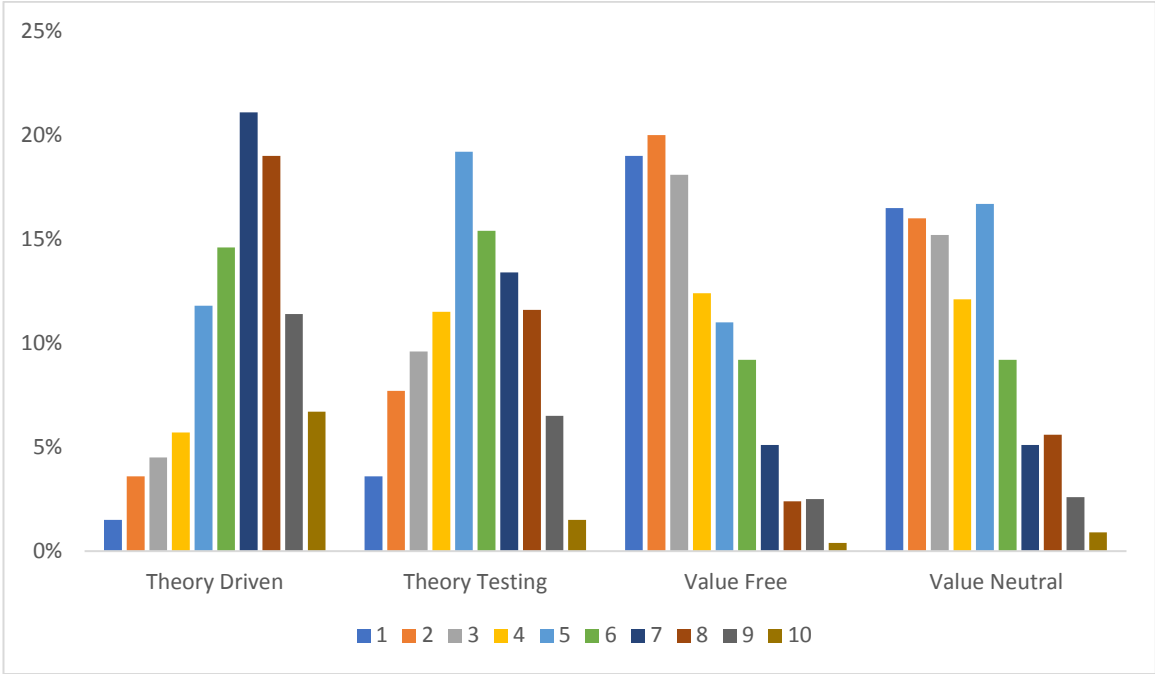
Figure 0.5: The following definitions of sociological research have been published by sociological associations and professional sociologists. Please indicate on the scales below how representative you think the definitions are of British sociological research, where 1 indicates a very poor description and 10 indicates a very good description.
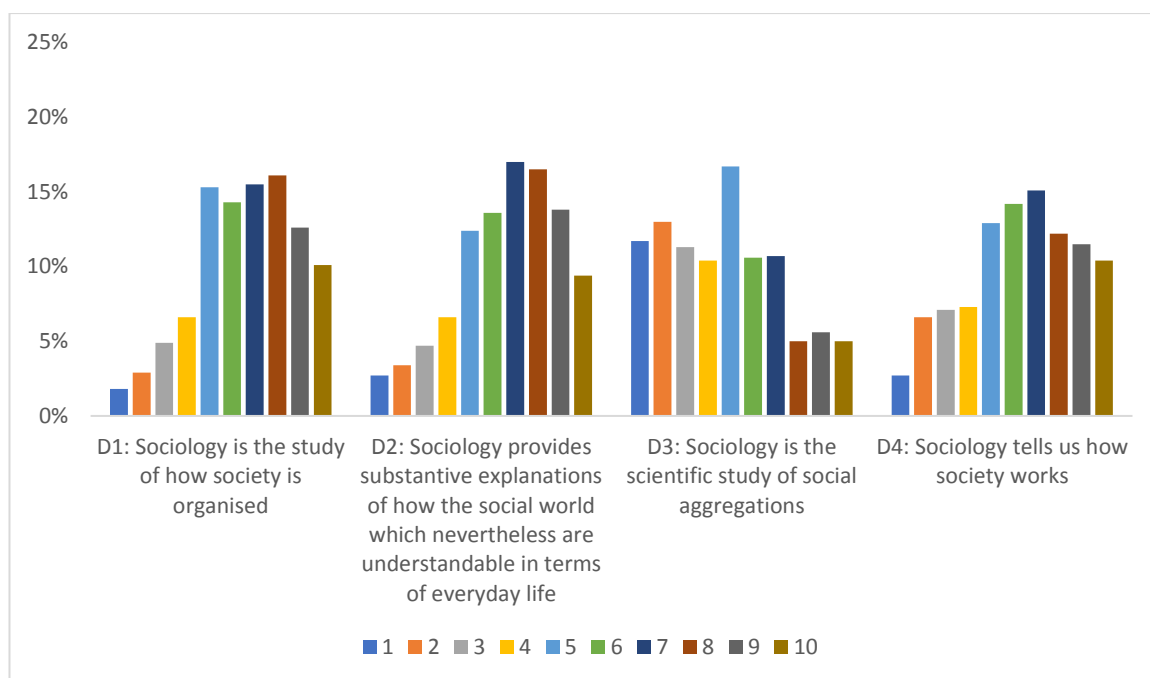
Figure 0.6: The following definitions of sociological research have been published by sociological associations and professional sociologists. Please indicate on the scales below how representative you think the definitions are of British sociological research, where 1 indicates a very poor description and 10 indicates a very good description.
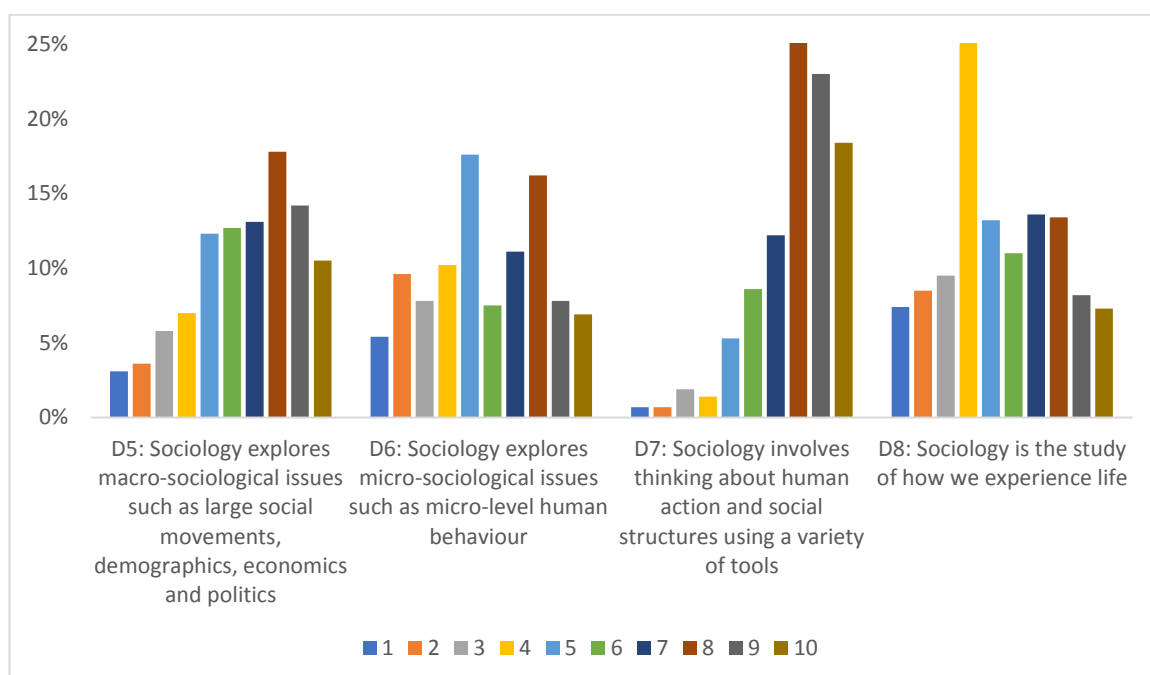
Table 0.12: Please indicate on the scales below how well you think that the following adjectives describe British sociological research in general, where 1 indicates a very poor description and 10 indicates a very good description.

Adjective	Mean Score	Z-Score of Skewness		Z-Score of Kurtosis	
Artistic	3.80	0.59	Normally distributed	-0.51	No kurtosis
Contextual	6.82	-0.84	Normally distributed	0.64	No kurtosis
Creative	5.55	-0.14	Normally distributed	-0.81	No kurtosis
Descriptive	6.12	-0.35	Normally distributed	-0.48	No kurtosis
Empirical	7.00	-0.87	Normally distributed	-0.54	No kurtosis
Generalisable	5.00	-0.09	Normally distributed	-0.66	No kurtosis
Objective	4.48	0.21	Normally distributed	-0.71	No kurtosis
Problem Generating	5.63	-0.24	Normally distributed	-0.58	No kurtosis
Problem Solving	5.40	-0.03	Normally distributed	-0.71	No kurtosis
Reflexive	6.83	-0.61	Normally distributed	-0.11	No kurtosis
Scientific	5.18	0.05	Normally distributed	-0.84	No kurtosis
Tentative	4.91	0.09	Normally distributed	-0.74	No kurtosis
Theory Driven	6.62	-0.57	Normally distributed	-0.12	No kurtosis
Theory Testing	5.42	-0.09	Normally distributed	-0.71	No kurtosis
Value Free	3.53	0.74	Normally distributed	-0.18	No kurtosis
Value Neutral	3.95	0.52	Normally distributed	-0.52	No kurtosis

Table 0.13: The following definitions of sociological research have been published by sociological associations and professional sociologists. Please indicate on the scales below how representative you think the definitions are of British sociological research, where 1 indicates a very poor description and 10 indicates a very good description.

Descriptor	Mean Score	Z-Score of Skewness		Z-Score of Kurtosis	
D1: Sociology is the study of how society is organised	6.62	-0.39	Normally distributed	-0.46	No kurtosis
D2: Sociology provide substantive explanations of the social world which nevertheless are understandable in terms of everyday life	6.62	-0.53	Normally distributed	-0.35	No kurtosis
D3: Sociology is the scientific study of social aggregations	4.75	0.30	Normally distributed	-0.83	No kurtosis
D4: Sociology tells us how society works	6.27	-0.29	Normally distributed	-0.79	No kurtosis
D5: Sociology explores macro-sociological issues such as large social movements, demographics, economics and politics	6.60	-0.50	Normally distributed	-0.56	No kurtosis
D6: Sociology explores micro-sociological issues such as micro-level human behaviour	5.67	-0.09	Normally distributed	-1.02	No kurtosis
D7: Sociology involves thinking about human action and social structures using a variety of tools	7.90	-1.21	Normally distributed	1.73	No kurtosis
D8: Sociology is the study of how we experience life	5.66	-0.15	Normally distributed	-1.02	No kurtosis

Table 0.14: Cluster group membership crosstabulated with engagement with research methods (row percentages)

	Researcher Identity			Use of Qualitative Methods				Use of Quantitative Methods			
	Quantitative (%)	Qualitative (%)	Mixed Methods (%)	A Lot (%)	Some (%)	A Little (%)	None (%)	A Lot (%)	Some (%)	A Little (%)	None (%)
Adjective Cluster											
Critique	**10.4**	**53.1**	**36.5**	58.7	28.4	6.0	6.9	16.1	29.0	20.3	34.6
Analytic	**6.7**	**67.3**	**26.1**	68.7	21.7	6.6	3.0	13.3	25.3	25.3	36.1
Definition Cluster											
Micro	9.2	63.1	27.7	**67.2**	**21.8**	**6.5**	**4.6**	16.0	24.3	24.7	35.0
Macro	8.6	55.3	36.2	**54.5**	**33.3**	**5.8**	**6.4**	15.3	31.2	15.3	38.2

Percentages in **bold** indicate statistical significance

Figure 0.7: Please indicate on the following scales how close you see sociology to the arts and humanities or natural sciences, where 1 indicates closeness to the arts and humanities and 10 indicates closeness to the natural sciences
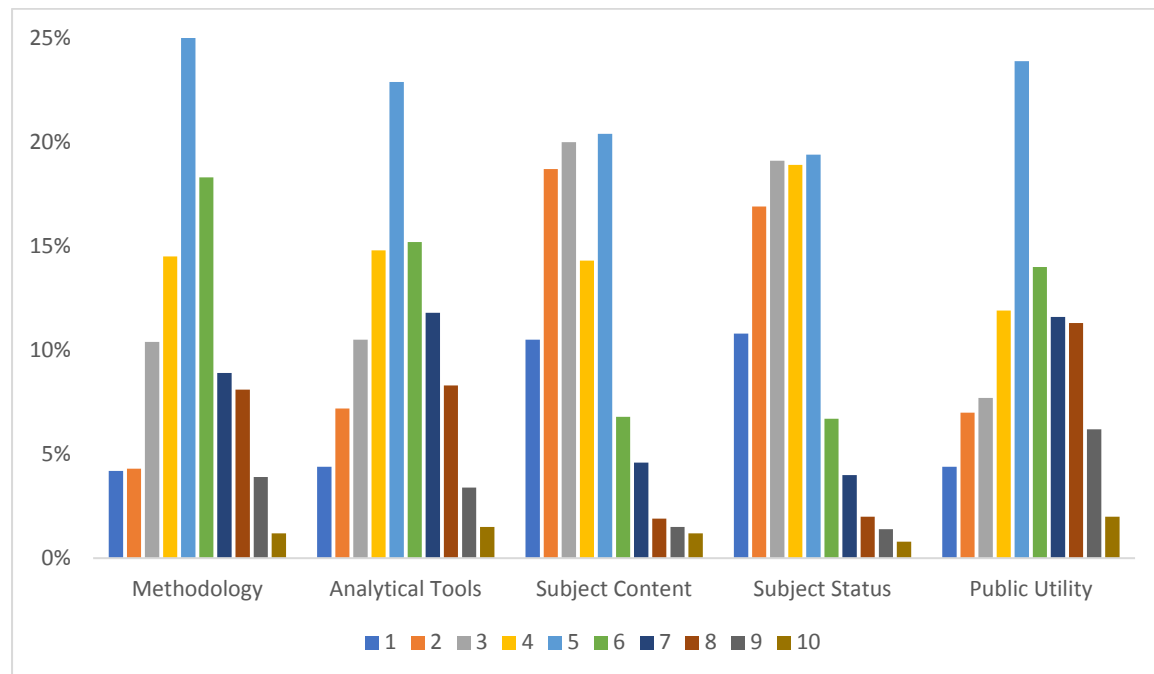
Table 0.15: Please indicate on the following scales how close you see sociology to the arts and humanities or natural sciences, where 1 indicates closeness to the arts and humanities and 10 indicates closeness to the natural sciences

Variable	Mean Score	Z-Scores of Skewness		Z-Scores of Kurtosis	
Methodology	5.17	0.04	Normally distributed	-0.42	No kurtosis
Analytical Tools	5.10	0.05	Normally distributed	-0.14	No kurtosis
Public Utility	5.40	-0.06	Normally distributed	-0.56	No kurtosis
Status	3.79	0.64	Normally distributed	0.37	No kurtosis
Subject Content	3.81	0.71	Normally distributed	0.37	No kurtosis

Table 0.16: Please indicate on the following scales how close you see sociology to the arts and humanities or natural sciences, where 1 indicates closeness to the arts and humanities and 10 indicates closeness to the natural sciences

	Arts and Humanities (%)	Mid (%)	Natural Sciences (%)
Methodology	33.5	44.3	22.1
Analytical Tools	36.8	38.1	25.0
Public Utility	31.0	37.8	31.2
Status	65.7	26.1	8.2
Subject Content	63.6	27.2	9.2

Table 0.17: Arts and humanities versus natural sciences crosstabulated with engagement with research methods (row percentages)

	Researcher Identity			Use of Qualitative Methods				Use of Quantitative Methods			
	Quantitative (%)	Qualitative (%)	Mixed Methods (%)	A Lot (%)	Some (%)	A Little (%)	None (%)	A Lot (%)	Some (%)	A Little (%)	None (%)
Arts and Humanities	**5.6**	**70.1**	**24.2**	70.4	17.6	5.6	6.5	11.2	23.4	19.6	45.8
Mid	**9.7**	**56.8**	**33.5**	56.0	32.1	6.4	5.6	15.8	28.6	20.1	35.5
Natural Sciences	**15.5**	**49.3**	**35.2**	60.6	25.4	9.9	4.2	25.0	26.4	20.8	27.8
Percentages in **bold** indicate statistical significance											

Chapter Six: The Purpose and Future Direction of British Sociology

Table 0.18: Do you believe that other academic disciplines are doing research previously seen as the research areas of sociology? To what extent do you believe that sociology is being exported to other disciplines?

	Previously Sociology (%)	Other Disciplines (%)
Definitely	69.7	64.3
Probably	24.5	23.6
Uncertain	4.3	6.2
Probably Not	1.6	5.1
Definitely Not	0.0	0.8

Table 0.19: To what extent to you believe that British sociology is in decline as an academic subject?

	Decline (%)
Very Much	8.9
Much	12.4
Somewhat	40.8
Not Much	24.3
Not At All	13.5

Table 0.20: How important do you think it is to consider the following before starting research?

	Economic (%)	Policy (%)	Media (%)	Yourself (%)	Users (%)	Participants (%)
Not at all important	11.2	3.0	5.6	3.7	2.9	1.1
Not very important	19.1	7.0	15.6	10.4	6.4	1.4
Neither important nor unimportant	29.2	12.0	27.6	17.6	11.1	4.4
Important	32.0	44.5	39.0	44.9	44.2	30.8
Extremely important	7.6	32.3	11.4	22.0	34.2	60.2
I do not undertake research	0.9	1.1	0.9	1.5	1.2	2.2

Table 0.21: How important is it that British sociological researchers disseminate their work to the following groups?

	Government (%)	Businesses (%)	Charities/NGOs (%)	Media (%)	Public (%)
Not at all important	0.4	4.9	0.3	0.9	0.0
Not very important	2.2	11.0	1.1	4.7	1.0
Neither important nor unimportant	8.1	28.1	8.5	11.7	6.2
Important	46.2	44.0	51.4	58.9	45.5
Extremely important	43.1	11.9	38.7	23.8	47.3

Table 0.22: How important is it that the UK Government appoints a chief social science advisor to ensure that it is fully informed about the social implications and impacts of new policies?

	Chief Social Science Advisor (%)
Not at all important	3.3
Not very important	6.7
Neither important nor unimportant	14.3
Important	40.4
Extremely important	35.3

Table 0.23: Key demographic variables for UK sample

	Frequency (%)
Age	
18-34	31.5
35-44	25.4
45-54	22.0
55+	21.1
Seniority	
Professor/Reader	22.8
Senior Lecturer or Equivalent	24.5
Lecturer or Equivalent	28.6
Postgraduate	24.1
Employment Function	
Research Only	19.2
Teaching Only	3.6
Research and Teaching	73.4
Neither Research or Teaching	3.8

Table 0.24: Which areas of sociology best characterise your work? Please give four examples, listed in order of importance

	Research Areas							
	18-34		**35-44**		**45-54**		**55+**	
	Research Area	**Frequency (%)**	**Research Area**	**Frequency (%)**	**Research Area**	**Frequency (%)**	**Research Area**	**Frequency (%)**
1st	Social Cohesion, Diversity & Inequalities	15.6	Social Cohesion, Diversity & Inequalities	18.6	Social Cohesion, Diversity & Inequalities	20.0	Health & Medicine	14.4
2nd	Race, Ethnicity & Migration	10.6	Health & Medicine	7.5	Gender & Sexuality	11.4	Race, Ethnicity & Migration	11.3
3rd	Health & Medicine	10.3	Race, Ethnicity & Migration	7.3	Race, Ethnicity & Migration	9.9	Social Cohesion, Diversity & Inequalities	10.9

Table 0.25: Which areas do you see as core to sociology? Please give four examples, listed in order of importance

	Core Research Areas							
	18-34		**35-44**		**45-54**		**55+**	
	Core Research Area	**Frequency (%)**	**Core Research Area**	**Frequency (%)**	**Core Research Area**	**Frequency (%)**	**Core Research Area**	**Frequency (%)**
1st	Social Cohesion, Diversity & Inequalities	24.6	Social Cohesion, Diversity & Inequalities	23.2	Social Cohesion, Diversity & Inequalities	29.0	Social Cohesion, Diversity & Inequalities	40.5
2nd	Race, Ethnicity & Migration	16.5	Race, Ethnicity & Migration	16.6	Work & Employment	12.3	Race, Ethnicity & Migration	10.2
3rd	Work & Employment	11.3	Work & Employment	13.1	Race, Ethnicity & Migration	8.1	Power	6.5

Table 0.26: Views of the nature of British sociology

	Arts and Humanities versus Natural Sciences			Adjective Cluster		Descriptor Cluster	
	Arts and Humanities (%)	Mid (%)	Natural Sciences (%)	Critique (%)	Analytic (%)	Micro (%)	Macro (%)
Age							
18-34	23.8	50.8	25.4	**59.7**	**40.3**	72.8	27.2
35-44	26.9	57.4	15.7	**44.6**	**55.4**	66.1	33.9
45-54	28.4	60.0	11.6	**58.1**	**41.9**	60.2	39.8
55+	24.4	62.8	12.8	**64.5**	**35.5**	45.5	54.5
Seniority							
Postgraduate	**21.6**	**55.7**	**22.7**	51.1	48.9	68.3	31.7
Lecturer or Equivalent	**23.0**	**54.9**	**22.1**	63.3	36.7	62.6	37.4
Senior Lecturer or Equivalent	**30.9**	**61.9**	**7.2**	50.6	49.4	64.2	35.8
Professor or Reader	**31.2**	**51.0**	**17.7**	63.1	36.9	56.8	43.2
Employment Function							
Teaching	28.1	56.3	15.6	59.1	40.9	64.3	35.7
Not Teaching	16.2	56.2	27.5	45.5	54.5	58.2	41.8

Percentages in **bold** indicate statistical significance

Table 0.27: Which areas of sociology best characterise your work? Please give four examples, listed in order of importance

	Research Areas							
	Postgraduate		**Lecturer or Equivalent**		**Senior Lecturer or Equivalent**		**Professor or Reader**	
	Research Area	**Frequency (%)**	**Research Area**	**Frequency (%)**	**Research Area**	**Frequency (%)**	**Research Area**	**Frequency (%)**
1st	Social Cohesion, Diversity & Inequalities	11.4	Social Cohesion, Diversity & Inequalities	16.3	Social Cohesion, Diversity & Inequalities	23.6	Social Cohesion, Diversity & Inequalities	14.1
2nd	Work & Employment	9.1	Health & Medicine	10.7	Health & Medicine	13.0	Race, Ethnicity & Migration	11.4
3rd	Race, Ethnicity & Migration	8.0	Race, Ethnicity & Migration	9.1	Race, Ethnicity & Migration	9.8	Health & Medicine	9.8

Table 0.28: Which areas do you see as core to sociology? Please give four examples, listed in order of importance

	Core Research Areas							
	Postgraduate		**Lecturer or Equivalent**		**Senior Lecturer or Equivalent**		**Professor or Reader**	
	Core Research Area	**Frequency (%)**	**Core Research Area**	**Frequency (%)**	**Core Research Area**	**Frequency (%)**	**Core Research Area**	**Frequency (%)**
1st	Social Cohesion, Diversity & Inequalities	17.1	Social Cohesion, Diversity & Inequalities	34.9	Social Cohesion, Diversity & Inequalities	22.5	Social Cohesion, Diversity & Inequalities	37.0
2nd	Race, Ethnicity & Migration	14.3	Race, Ethnicity & Migration	16.5	Race, Ethnicity & Migration	16.0	Work & Employment	8.4
3rd	Work & Employment	14.0	Work & Employment	8.5	Work & Employment	14.2	Power	7.9

Table 0.29: Primarily what kind of researcher do you consider yourself?

	Teaching (%)	Not Teaching (%)
Quantitative	9.1	11.5
Qualitative	62.4	54.0
Mixed Methods	28.5	34.5

Percentages in **bold** indicate statistical significance

Table 0.30: Which areas of sociology best characterise your work? Please give four examples listed in order of importance. Which areas do you see as core to sociology? Please give four examples, listed in order of importance.

	Research Areas				Core Research Areas			
	Teaching		Not Teaching		Teaching		Not Teaching	
	Research Area	Frequency (%)	Research Area	Frequency (%)	Research Area	Frequency (%)	Research Area	Frequency (%)
1st	Social Cohesion, Diversity & Inequalities	16.9	Social Cohesion, Diversity & Inequalities	16.2	Social Cohesion, Diversity & Inequalities	27.3	Social Cohesion, Diversity & Inequalities	30.8
2nd	Race, Ethnicity & Migration	11.6	Family & the Home	10.6	Race, Ethnicity & Migration	15.0	Gender & Sexuality	14.4
3rd	Health & Medicine	11.0	Work & Employment	9.0	Work & Employment	10.7	Work & Employment	12.8

Chapter Seven: The Quantitative Experience of the UK, New Zealand and the Netherlands

Table 0.31: How does sociological research in your country compare to sociological research in other countries?

	UK (%)
A great deal better	5.7
Better	41.6
Similar	41.5
Poorer	9.5
A great deal poorer	1.7

Appendix 4: Variables included in the analysis

Variables included in Chapter Four:

Last Year Quantitative: The extent to which respondents used quantitative research in the last year: 'A lot', 'Some', 'A little' or 'None'

Last Year Qualitative: The extent to which respondents used qualitative research in the last year: 'A lot', 'Some', 'A little' or 'None'

Researcher Identity: Whether a respondent primarily identified as a quantitative, qualitative or mixed methods researcher

Gender: Whether a respondent is male, female or other

Seniority: Whether a respondent is a student (undergraduate or postgraduate), lecturer (or equivalent), senior lecturer (or equivalent) or professor/reader (or equivalent)

Age: Whether a respondent is aged 18-34, 35-44, 45-54 or 55+

Organisation Type: Whether a respondent worked/studied in a college or university or worked outside academia

Russell Group: Whether a respondent worked/studied in a Russell Group institution or not

Employment Contract: Whether a respondent had a teaching contract or not

Qualification Outside UK: Whether a respondent had obtained a qualification outside of the UK

BSA Membership: Whether a respondent was a member of the British Sociological Association

BSA Membership Length: The length of time a respondent had been a member of the British Sociological Association

Last Year Research Methods Used: The research methods respondents used in the last year

Last Year Research Methods Published: The research methods respondents published with in the last year

Variables included in Chapter Five:

Research Area 1: The research area that best characterised respondent's research.

Research Area 2: The second most important research area in characterising a respondent's research.

Research Area 3: The third most important research area in characterising a respondent's research.

Research Area 4: The fourth most important research area in characterising a respondent's research.

Summarised Research Area: The areas which respondents stated that their research fell into.

Core Discipline Research Area 1: The research area that respondents thought was core to British sociological research.

Core Discipline Research Area 2: The second most core research area to British sociological research listed by respondents.

Core Discipline Research Area 3: The third most core research area to British sociological research listed by respondents.

Core Discipline Research Area 4: The fourth most core research area to British sociological research listed by respondents.

Summarised Core Discipline Research Area: The areas which respondents stated as core to British sociological research.

Adjective Artistic: The suitability with which respondents believed the adjective artistic described British sociology.

Adjective Contextual: The suitability with which respondents believed the adjective contextual described British sociology.

Adjective Creative: The suitability with which respondents believed the adjective creative described British sociology.

Adjective Descriptive: The suitability with which respondents believed the adjective descriptive described British sociology.

Adjective Empirical: The suitability with which respondents believed the adjective empirical described British sociology.

Adjective Generalisable: The suitability with which respondents believed the adjective generalisable described British sociology.

Adjective Objective: The suitability with which respondents believed the adjective objective described British sociology.

Adjective Problem Generating: The suitability with which respondents believed the adjective problem generating described British sociology.

Adjective Problem Solving: The suitability with which respondents believed the adjective problem solving described British sociology.

Adjective Reflexive: The suitability with which respondents believed the adjective reflexive described British sociology.

Adjective Scientific: The suitability with which respondents believed the adjective scientific described British sociology.

Adjective Tentative: The suitability with which respondents believed the adjective tentative described British sociology.

Adjective Theory Driven: The suitability with which respondents believed the adjective theory driven described British sociology.

Adjective Theory Testing: The suitability with which respondents believed the adjective theory testing described British sociology.

Adjective Value Free: The suitability with which respondents believed the adjective value free described British sociology.

Adjective Value Neutral: The suitability with which respondents believed the adjective value neutral described British sociology.

D1 Sociology is the study of how society is organised: The suitability with which respondents believed this statement described British sociology.

D2 Sociology provides substantive explanations of the social world which are nevertheless understandable in terms of everyday life: The suitability with which respondents believed this statement described British sociology.

D3 Sociology is the scientific study of social aggregations: The suitability with which respondents believed this statement described British sociology.

D4 Sociology tells us how society works: The suitability with which respondents believed this statement described British sociology.

D5 Sociology explores macro-sociological issues such as large social movements, demographics, economics and politics: The suitability with which respondents believed this statement described British sociology.

D6 Sociology explores micro-sociological issues such as micro-level human behaviour: The suitability with which respondents believed this statement described British sociology.

D7 Sociology involves thinking about human action and social structures using a variety of tools: The suitability with which respondents believed this statement described British sociology.

D8 Sociology is the study of how we experience life: The suitability with which respondents believed this statement described British sociology.

AHS Methodology: Whether participants viewed the methodology of sociological research closer to the arts and humanities or the natural sciences.

AHS Analytical Tools: Whether participants viewed the analytical tools of sociological research closer to the arts and humanities or the natural sciences.

AHS Subject Content: Whether participants viewed the subject content of sociological research closer to the arts and humanities or the natural sciences.

AHS Status: Whether participants viewed the status of sociological research closer to the arts and humanities or the natural sciences.

AHS Public Utility: Whether participants viewed the public utility of sociological research closer to the arts and humanities or the natural sciences.

Variables included in Chapter Six:

Previously Sociology: The extent to which participants believed that other academic disciplines were doing research previously seen as the research areas of sociology: 'Definitely', 'Probably', 'Uncertain', 'Probably Not' or 'Definitely Not'.

Other Disciplines: The extent to which participants believed that ideas from sociology were being used in other disciplines: 'Definitely', 'Probably', 'Uncertain', 'Probably Not' or 'Definitely Not'.

Decline: The extent to which respondents believed that British sociology was in decline as an academic discipline

Disseminate Government: The extent to which respondents believed it was important to disseminate their work to government

Disseminate Business: The extent to which respondents believed it was important to disseminate their work to businesses

Disseminate Charities/NGOs: The extent to which respondents believed it was important to disseminate their work to charities or NGOs

Disseminate Media: The extent to which respondents believed it was important to disseminate their work to the media

Disseminate Public: The extent to which respondents believed it was important to disseminate their work to the public

Economic Impact: The extent to which respondents believed it was important to consider the potential economic impacts of research

Policy Impact: The extent to which respondents believed it was important to consider the potential policy impacts of research

Media Impact: The extent to which respondents believed it was important to consider the potential media impacts of research

Impact Yourself: The extent to which respondents believed it was important to consider the potential impacts of research on themselves

Impact Users: The extent to which respondents believed it was important to consider the potential impacts of research on potential users

Impact Participants: The extent to which respondents believed it was important to consider the potential impacts of research on participants

Social Science Advisor: The extent to which respondents believed that the UK Government Ministry needed a chief social science advisor to ensure that the Government was fully informed about the social implications and impacts of new policies

Researcher Identity: Whether a respondent primarily identified as a quantitative, qualitative or mixed methods researcher

Seniority: Whether a respondent is a student (undergraduate or postgraduate), lecturer (or equivalent), senior lecturer (or equivalent) or professor/reader (or equivalent)

Age: Whether a respondent is aged 18-34, 35-44, 45-54 or 55+

Employment Contract: Whether a respondent had a teaching contract or not

Summarised Research Areas: The areas which respondents stated that their research fell into

Summarised Core Discipline Research Areas: The areas which respondents stated as core to British sociological research

Arts, Humanities and Science Cluster Variable: Cluster variable created in chapter five. Whether respondents belong to a group of participants that sees British sociology as closer to the arts and humanities, the natural sciences or mid-way between the two

Descriptor Cluster Variable: Cluster variable created in chapter five. Whether respondents belong to a group of participants who use descriptors that emphasise British sociology's role in understanding micro interactions or a group who use descriptors that emphasise British sociology's role in understanding macro processes

Adjective Cluster Variable: Cluster variable created in chapter five. Whether respondents belong to a group of participants who endorsed adjectives that are traditionally associated

with scientific research to describe British sociology or a group who endorsed adjectives not traditionally associated with scientific research to describe British sociology

Variables included in Chapter Seven:

World Leading: The country that participants believed produce 'world-leading' sociology and their reasons for choosing this country

Researcher Identity: Whether a respondent primarily identified as a quantitative, qualitative or mixed methods researcher

Last Year Quantitative: The extent to which respondents used quantitative research in the last year: 'A lot', 'Some', 'A little' or 'None'

Last Year Qualitative: The extent to which respondents used qualitative research in the last year: 'A lot', 'Some', 'A little' or 'None'

Summarised Research Areas: The areas which respondents stated that their research fell into

AHS Methodology: Whether participants viewed the methodology of sociological research closer to the arts and humanities or the natural sciences.

AHS Analytical Tools: Whether participants viewed the analytical tools of sociological research closer to the arts and humanities or the natural sciences.

AHS Subject Content: Whether participants viewed the subject content of sociological research closer to the arts and humanities or the natural sciences.

AHS Status: Whether participants viewed the status of sociological research closer to the arts and humanities or the natural sciences.

AHS Public Utility: Whether participants viewed the public utility of sociological research closer to the arts and humanities or the natural sciences.

Key Words: The key words that respondents used to describe sociology in their country

Quality: Whether participants believed that the quality of sociological research in their country was 'A great deal better', 'Better', 'Similar', 'Poorer' or 'A great deal poorer' than that produced in other countries

Appendix 5: Crother's (2011) Classification Scheme

Variable Values

Value		Label
v1	1	Methods
	2	History:theory
	3	Practise
	4	Policy etc
	5	Radical
	6	Soc. Psychology
	7	Cultural
	8	Network
	9	Organisations
	10	Social Change
	11	Macro-Sociology
	12	Mass Behaviour
	13	Opinions: communications
	14	Leisure: sports, consumption, Fun
	15	Transport
	16	Political
	17	Economic
	18	Military: War, conflict and revolution
	19	Group interactions and emotions
	20	Class Stratification
	21	Feminist: gender
	22	Rural

	23	Urbanisation and globalisation
	24	Community: regional/nationalism and formation of space and place
	25	Environmental
	26	Language: arts and culture, media
	27	Education
	28	Religion
	29	Social Control
	30	Violence, Crime, Deviance and Policing
	31	Knowledge
	32	Science, technology and the future
	33	Demography: H Biology
	34	Family: socialisation and childhood
	35	Health: medicine
	36	Social problems/services: welfare
	37	Poverty
	38	Ageing and the lifecourse
	39	Structure and Agency
	40	Race, Ethnicity and Migration
	41	Work and Employment
	42	Identity, self and citizenship
	43	Social Inequalities, Cohesion
	44	Law
	45	Power
	46	Institutions and social structures