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GETTING THE GREASE TO THE SQUEAK: UNDERSTANDING THE OPERATIONAL AND CULTURAL CONTEXT IN WHICH SCIENCE AND EVIDENCE CAN ENHANCE POLICE PRACTICE

L PINCHEN

PhD

2022

GETTING THE GREASE TO THE SQUEAK: UNDERSTANDING THE OPERATIONAL AND CULTURAL CONTEXT IN WHICH SCIENCE AND EVIDENCE CAN ENHANCE POLICE PRACTICE

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A thesis submitted in partial fulfilment of the requirements of the University of Northumbria at Newcastle for the degree of Doctor of Philosophy

Research undertaken in the Faculty of Arts, Design & Social Sciences

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Abstract

Within England and Wales, the professionalisation of policing agenda has elevated the requirement for police officers, as professional practitioners, 'to create, review and use' research evidence to inform their 'policies, practices, and decisions' (College of Policing, 2020). Despite an emerging body of literature which considers officer receptivity to research more broadly, this often ignores the voice of frontline practitioners. This thesis has aimed to understand the practitioner's views, of the operational and cultural context in which science and evidence can enhance their practice. It offers a timely and original contribution to the academic understanding of frontline officers' receptivity to research, at a time when police professionalisation is gathering significant momentum.

This study adopted a mixed-methods convergent parallel research design, underpinned by a framework based on police occupational culture theory and Lipsky's Theory of Street-Level Bureaucracy (Lipsky, 2010). In the quantitative strand, an online questionnaire was used (n=335), and in the qualitative strand, Q-methodology was used to explore constables' and sergeants' views towards research in frontline policing (n=57). Further qualitative data was obtained using Q-sorting as a cognitive tool, a novel method, to enhance the narrative of the study's discussion.

Findings indicate that officers are broadly open to research, however, they are less convinced of the role it ought to play, and the value it can bring to their practices. While there are significantly differing views between the ranks, these are not binary in nature, and there is complexity *within* and *between* the ranks. The theoretical implications of this are that it presents new evidence that there is a range of positions and strands within occupational subculture. Furthermore, academic attainment appears to significantly influence officers' perspectives, which is important to wider developments in police education.

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List of Abbreviations

BAME Black, Asian and Minority Ethnic

BOS Bristol Online Survey

BWV Body Worn Video

CoP College of Policing

CPD Continuous Professional Development

DHEP Degree Holder Entry Programme

DV Domestic Violence

EBP Evidence-Based Policing

EBPAS Evidence-Based Practice Attitude Scale

EC Exit Comment

ESRC Economic and Social Research Council

GMP Greater Manchester Police

HLAA Highest Level of Academic Attainment

N8PRP N8 Policing Research Partnership

NPCC National Police Chiefs' Council

OPCC Office of Police and Crime Commissioner

PAR Participatory Action Research

PC Police Constable

PCDA Police Constable Degree Apprenticeship

PCSO Police Community Support officer

PEQF Police Education Qualifications Framework

PG Postgraduate

PS Police Sergeant

RCT Randomised Control Trial

RBT Research-Based Tactics

RF Respondent Female

RM Respondent Male

RJ Restorative Justice

RQ Research Question

QM Q-methodology

SLB Street Level Bureaucrats

SSD Statistically Significant Difference

SPSS Statistical Package for Social Scientists

UG Undergraduate

WWCR What Works Centre for Crime Reduction

Glossary of Terms

Autonomous constable	A constable who is 'capable of self-legislation and able to make judgements and actions based on his/her particular set of values, preferences and beliefs' (Osmore and Grady 2018, p.2.).
Consensus item	A Q-statement item whose ranking did not distinguish between any pair of factors.
Eigenvalue	An 'eigenvalue is the sum of squared loadings for a factor; it represents the amount of variance accounted for by a factor' (Shinebourne, 2009, p.97).
Evidence-based	'Founded on an accumulation of facts that have been obtained by research' (Oxford University Press, 2022b).
Evidence-Based Policing	An approach in which 'police officers and staff create, review and use the best available evidence to inform and challenge policies, practices, and decisions' (College of Policing, 2020).
Evidence-based practice	An approach 'that emphasises the practical application of the findings of the best available current research' (Oxford University Press, 2022a).
Evidence-based tactics	A method of deploying police resources to meet specific objectives, 'founded on an accumulation of facts that have been obtained by research' (Oxford University Press, 2022b).
Exit Comment	A written comment provided post Q-sorting to explain a participant's sorting rationale.
Factor analysis	In Q-methodology, this is a statistical process which identifies the similarities between the participants' sorting of the Q-statement items.
Factor array	'A single Q-sort configured to represent the viewpoint of a particular factor' (Watts and Stenner, 2012, p.140).
Group Q-sorting	The process of undertaking Q-sorting as part of a group sorting exercise.
Police staff	Staff employed within police forces who are non-warranted and therefore do not carry full police powers.
Post Q-sort questionnaire	A questionnaire designed to capture the sorting rationale of an individual, after completing the Q-sorting process.
Pragmatist sergeant	A sergeant who is 'guided more by practical considerations than by ideals' (Oxford University Press, 2020b).
Q-group comment	A comment made by a participant during a discussion, whilst undertaking a group Q-sorting activity.

Q-group discussion	A discussion between participants when
Q-methodology	completing a group Q-sorting activity. A foundation for the systematic study of human subjectivity, where subjectivity is comprised of a person's opinions, beliefs and attitudes.
Q-research question	A central question to which the participant refers when sorting a series of Q-statement items.
Q-set	A set of Q-statement items which fully represent the topic.
Q-sort	A completed distribution of Q-statement items on to a Q-sort grid.
Q-sorting	The process of sorting Q-statement items on to a grid to opinion, usually from strongly agree (+5) to strongly disagree (-5).
Q-sort grid	A grid on to which participants sort a series of statements (Q-set), according to their opinion, usually from strongly agree (+5) to strongly disagree (-5).
Q-statement item	A written statement which 'makes a different (but nonetheless recognizable) assertion' about the subject matter under investigation (Watts and Stenner, 2005, p.74).
Receptivity	A 'willingness to consider or accept new suggestions and ideas (Oxford University Press, 2020a).
Receptive constable	A constable who is 'willing to accept or consider new suggestions and ideas' (Oxford University Press, 2020a).
Receptive sergeant	A constable who is 'willing to accept or consider new suggestions and ideas' (Oxford University Press, 2020a).
Research	The systematic investigation into and study of materials and sources in order to establish facts and reach new conclusions' (Oxford University Press, 2022d).
Research-based	'Founded on an accumulation of facts that have been obtained by research.' (Oxford University Press, 2022b).
Research-based tactic (RBT)	A method of deploying police resources to meet specific objectives, 'founded on an accumulation of facts that have been obtained by research' (Oxford University Press, 2022b).
Traditionalist constable	A constable who is 'an advocate of maintaining tradition to resist change' (Oxford University Press, 2020c).
Traditionalist sergeant	A sergeant who is 'an advocate of maintaining tradition to resist change' (Oxford University Press, 2020c).
Viewpoint	A person's or group's point of view or opinion towards a subject.

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Highest Level of Academic Attainment (HLAA)

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Declaration

I declare that the work contained in this thesis has not been submitted for any other award and that it is all my own work. I also confirm that this work fully acknowledges opinions, ideas and contributions from the work of others.

Any ethical clearance for the research presented in this thesis has been approved. Approval has been sought and granted by the Faculty Ethics Committee on 2nd December 2016.

I declare that the Word Count of this Thesis is 86,145 words

Name: Lynsey Pinchen

Signature:

Date: 20th May 2022

Chapter One: Introduction

1.1. Background to the Research Topic

Evidence-based practice within policing is a significant area of interest within contemporary police research, both nationally and internationally. Heralded as an approach in which evidence obtained through scientific and empirical research can support policing methods and procedures, it is viewed by some as the bridge that links the world of policing to that of research and science (Steinheider *et al.*, 2012; Alpert *et al.*, 2013; Fleming and Rhodes, 2018).

The concept of evidence-based policing (EBP) represents the embodiment of how the evidence-based practice research tradition is now linked to the broader professionalisation of policing agenda, both within the UK and internationally. Initially developed by the American experimental criminologist, Professor Lawrence Sherman, in the 1990s, EBP within policing is modelled on the medical profession's use of evidence, emanating from systematic and rigorous scientific research (Sherman, 1998; 2013). Sherman's most recent definition, developed over time, presents EBP as:

'A method of making decisions about "what works" in policing: which practices and strategies accomplish police missions most cost-effectively.' (2013, p.1)

The central premise of EBP in policing is the use of research-based evidence as the basis for police practices and decision making. Accordingly, a considerable amount of police research and evidence has been generated over the last quarter of a century, spanning policing across the globe. This research highlights the benefits that EBP can bring to police practices, not least in terms of more effective and efficient ways to *do* policing (for example Paoline *et al.* 2000; Lum *et al.* 2011; Sherman 2013; Bedford and Mazerolle 2014). Furthermore, within the UK over the last decade, calls to professionalise the role, and the creation of a professional body for policing in England and Wales, the College of Policing (CoP), have led to an increased interest in the generation of research evidence for policing. At the same time, responsibility for generating this evidence has shifted towards those who make up the profession, namely officers and police staff, as creators and users of the emergent knowledge base.

However, whilst there is a wealth of literature (generated by academics and police professionals) which foregrounds the benefits of an evidence-based approach in many areas

of policing activities (see Lum *et al.*, 2011; Sherman, 2013; Neyroud and Weisburd, 2014), there is a relatively smaller but growing body of literature which critiques the EBP approach. These critiques often centre upon what constitutes the best available 'evidence' for use within evidence-based practice. Furthermore, despite the promises of EBP and visions of professionalising the policing role through its use, many scholars have suggested that EBP has 'not been rapidly diffused' into policing (Lum, 2009, p.3), and Sherman himself has noted that thus far, it has failed to 'make fundamental inroads into policing behaviour' (2015, p.12).

1.2. Research Rationale

In light of the arguably slow uptake of research evidence in police practice, the rationale for this study was thus to explore the receptivity of frontline constables and sergeants in England to EBP, in the context of its relevance to their role and practice. In doing so, it was anticipated that this would also reveal the challenges involved in frontline research adoption and implementation from the practitioner's perspective.

Therefore, the focus of this research is to examine frontline officers' receptivity to research through an exploration of their openness to research, their views on its role, and the value they believe it holds for frontline practitioners. It will also explore the practical challenges to conducting and the use of research in frontline policing, as presented by frontline officers themselves. Doing so offers a unique and nuanced understanding of officers' receptivity to research.

Two further personal research aspirations have influenced this study. Firstly, I have endeavoured to rise to the challenge of conducting research within the world of frontline policing. Secondly, I have sought to illuminate the viewpoints of operational officers regarding the role of research within frontline policing and the value they place on it. This emerged from the personal motivation to give a voice to the officers whose voices often go unheard in the noise of everyday policing and within its organisations (Thacher, 2008).

1.3. Researcher Rationale

This study began as a research proposal I submitted in June 2015, as part of an application for an Economic and Social Research Council (ESRC) funded doctoral study at Northumbria University. The title of the study was 'Getting the Grease to the Squeak: Understanding the

operational and cultural context in which science, technology and evidence can enhance police practice'. The study's purpose was to consider how police officers respond to scientific and evidence-based practice to establish how best operational activity could be professionalised in the light of better experimental data. At the time of applying, I was a serving frontline police sergeant occupying a role in response policing, tasked with managing a team of response constables, in a small force in North East England. Having joined the police service following my graduation from university aged 22, I had served for 16 years and had supervised teams of police officers and staff for 10 years, as a sergeant and an inspector. I had held a variety of roles within policing including custody sergeant, prisoner handling supervisor, detective sergeant, and in a non-operational capacity, police trainer and crime management detective. I had supervised emergency responses to policing incidents and crime scenes, criminal investigations and the management of suspects, witnesses and victims, therefore my knowledge and practical experience of policing could be described as significant and varied.

Two years prior, in 2013, I had returned to higher education (HE) to study a policing subject at Masters' level by distance learning (my undergraduate degree in engineering having been awarded before joining the police in 1999). This interaction with HE and research evidence, during the latter stages of my police career, opened my eyes to a world beyond police practice, and I began to question the basis upon which police practices and decisions were defined and made. I was surprised to find how little research evidence existed to support the practices which had underpinned much of my policing career. At the same time, I was also beginning to see signs of academic research being carried out by senior officers within the force, which I felt my staff and I were not privy to, and largely excluded from. I recall a pivotal moment around this time when the team and I were involved as 'treatment providers' (Wood et al., 2014, p.362) in a randomised control trial (RCT) experiment, based on hot spot policing and foot patrol, being carried out within the force. The purpose of the experiment and our participation was not explained to us, and I subsequently discovered that one officer had chosen to patrol the defined area by driving slowly through it in a police vehicle, instead of carrying out foot patrol as required by the experiment. Questioning the possible explanations for the officer's actions, I became intrigued by the officer's decision, and agency, to circumvent the requirements of the experimental boundaries of the RCT (Wood et al., 2014, Macqueen and Bradford, 2016). Understanding the potential benefits that research evidence could bring to police practice, from studying at Masters' level, I found myself wanting to explore, from a theoretical perspective, the factors which could influence officers' receptivity to using research evidence within their frontline practices.

The lack of communication and involvement in the research process in the RCT I have described above, added to the sense of 'organisational 'injustice" I felt at the time, stemming from a perceived lack of 'voice' and autonomy in my role, and in the research activities of others (Charman and Bennett, 2021, p.1).\(^1\) Furthermore, I was becoming increasingly disillusioned by what I perceived to be a gap between what I had joined the police service to do (to serve the public) and the realities of police work (bureaucratic and lacking an evidence base). My disenchantment was further compounded by a dissatisfaction with the promotion prospects in a small force as a female, a part-time officer with two young children. I, therefore, made the life-changing decision to resign from policing, having been successful in my application for a fully funded PhD study. In doing so, I left behind my formal identity as an experienced police sergeant on a Friday afternoon in September 2015 and took up my new identity, as an inexperienced doctoral student, on the following Monday morning. Of course, the process of shifting identities was a much more nuanced, complicated and emotionally challenging affair and has taken place alongside the phases of this study, over a considerable period.

Whilst this thesis conventionally presents my research study and its findings, it also follows my journey, as a former police practitioner and researcher, through the research situations and contexts I have encountered along the way. As the author of this research, my personal and professional policing experiences, motives, values, beliefs and perspectives have shaped the research, as much as the research has shaped me, as an individual. As I have moved further away from my policing career and through the phases of this study, the ongoing, reflexive process I have undertaken has enabled me to make sense of the research decisions I have made, but more perhaps more profoundly, it has allowed me to make sense of my decision to leave policing and the feeling and emotions associated with this.

In presenting my positionality within this thesis, I offer a detailed consideration within Section 3.9 of the methodology chapter, in the context of the methodological decisions I made when undertaking this study. I also offer further reflections on my positionality throughout this thesis, woven through as reflective points within footnotes in each chapter. I have used footnotes to avoid interrupting the flow of the main text. Finally, in Section 8.7, in the concluding chapter of this thesis I reflect back on my journey as a researcher.

¹ I recognise much of Charman and Bennett's (2021) findings in my own experiences of having voluntarily resigned from the police service.

1.4. Research Definitions and Terms

At the outset, it is important to define what is meant by the various terms referred to in this thesis. Within the academic literature and policing discourse, several different labels are applied interchangeably to what are essentially the same entities. Firstly, the definition of the term *evidence-based policing*, used throughout this thesis, is that presented by the College of Policing (2020) and is described as:

An approach in which police officers and staff create, review and use the best available evidence to inform and challenge policies, practices, and decisions.

Evidence-based policing will be abbreviated to EBP.

The term *evidence-based practice* will be used in full to avoid confusion with *evidence-based policing*. For this research, evidence-based practice is defined as an approach:

'... that emphasises the practical application of the findings of the best available current research.' (Oxford University Press, 2022a)

The terms *research-based* and *evidence-based* are used interchangeably throughout this thesis.

Research-based describes that which is supported by studies 'which might use any research design, including those that so not establish causality' (for example, case studies and qualitative research) and whose supporting studies may not be systematically evaluated or are supported by a single study (Cook and Cook, 2011, p.5).

Conversely, the term *evidence-based* describes that which is supported by studies which establish causality (for example, randomised control trials and quasi experiments) and whose supporting studies 'address rigorous indicators of methodological quality' (Cook and Cook, 2011, p.5).

Where the terms *research-based* and *evidence-based* are used within this thesis, they are used synonymously, notwithstanding their definitional nuances and differences in methodological approach. For simplicity, both terms are broadly and collectively defined as that which is:

'Founded on an accumulation of facts that have been obtained by research.' (Oxford University Press, 2022b)

Finally, a key concept of this thesis is that of *receptivity* to research. Where the term *receptivity* is used, it refers to a 'willingness to consider or accept new suggestions and ideas' (Oxford University Press, 2020a).

Where other terminology is used within this thesis, outside the abovementioned definitions, these terms will refer to different entities. A list of abbreviations and glossary of terms have been provided at the beginning of this thesis to assist the reader in understanding the other terminology that is used.

1.5. Research Aim and Questions

The initial aim of this thesis (as presented in my research proposal) was to examine police officers' receptivity toward scientific and evidence-based policing practices and procedures and was focused on three central research objectives:

- To establish current levels of knowledge and understanding of EBP among frontline officers.
- To examine officers' perceptions of EBP and scientific processes as relevant to their roles
- To identify cultural factors behind police officer receptivity and adoption of EBP procedures within their workplace.

After a comprehensive review of the existing literature relating to police research, EBP, and the interrelated themes surrounding receptivity to research, the initial research aim was refined to a more specific formulation:

To explore police constables' and sergeants' receptivity to research in frontline policing in England.

This thesis addresses this research aim through four central research questions centred upon two broader themes. These themes are 'Receptivity to Research' (focused on the sub-themes of *openness*, *role* and *value*) and 'Challenges to Research' (focused on the sub-themes of

suspicion, communication, supervisor, discretion and team). Both of the broader themes emerged during the literature review and form the basis for the statements used in the quantitative and qualitative strands of the study. The four central research questions are as follows:

RQ₁ To what extent are constables and sergeants open to research in frontline policing?

RQ₂ What role do constables and sergeants believe research ought to play in frontline policing?

RQ₃ What value do constables and sergeants place on research in frontline policing?

RQ₄ What are the potential challenges to research within frontline policing?

1.6. Overview of the Research Methodology

To answer the research questions outlined above, a convergent parallel mixed-method research design was adopted for use with frontline police constables and sergeants as participants. In the quantitative strand of this research, an online questionnaire was distributed to frontline constables and sergeants across four police forces in England (n=335) and a population sampling strategy was applied (Bryman, 2008).² The questionnaire content focused on the two broad research themes of 'Receptivity to Research' (RQ₁ to RQ₃) and 'Challenges to Research' (RQ₄) drawing upon Police Culture Theory and Lipsky's Theory of Street Bureaucracy (Lipsky, 2010). Analysis of the questionnaire data was carried out using the statistical Software Package for Social Scientists (SPSS) version 24 (IBM, 2016) with attention focused on the statistically significant differences (SSDs) obtained in officers' responses to the questionnaire statements aligned to the themes of 'Receptivity to Research' and 'Challenges to Research'.

In the qualitative strand of this study, a Q Methodological approach was adopted to enable the study of constables' and sergeants' viewpoints (across three police forces within England) about the two themes identified above. To facilitate the Q Method element, 13 group sessions were carried out with officers during which individual Q-sort data was obtained from 26 constables and 31 sergeants. Further qualitative data was obtained from participants from discussions between officers whilst carrying out the group-based Q-sort. Data from the Q

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² Using the Bristol Online Survey tool (Jisc, 2022).

Method strand was analysed using the PQMethod (Schmolk, 2018) software tool and interpreted under the themes of 'Receptivity to Research' and 'Challenges to Research'. The qualitative strand revealed three distinctive viewpoints held by constables and three similarly distinctive viewpoints held by sergeants.³

This research adopted a convergent parallel mixed-method research design in which data gathered during the quantitative strand of the study was collected independently of the qualitative data but within a similar timeframe (Creswell and Plano Clark, 2018). The integration of the two sets of data occurred at the interpretation and reporting level (detailed within Chapters Six and Seven) and adopted a narrative approach (Fetters *et al.*, 2013). This narrative approach in reporting has been further enhanced by data from the officers' group discussion, selected by the researcher and woven throughout to add further depth of understanding and richness to the interpretation. Adopting a mixed-methodological approach has allowed for a comprehensive examination of the different and overlapping facets of frontline officers' receptivity to research, to provide a detailed and more complete account of this.

1.7. Research Significance and Previous Studies

This research is significant and unique in that it presents evidence of the overlapping and differing aspects of frontline officers' receptivity to research. The knowledge presented in this study has both academic and practical value. From an academic perspective, it presents a unique insight into the receptivity of frontline constables and sergeants in England, at a time when the professionalisation of policing requires all practitioners to engage with research as professionals in their field. Moreover, the additional value of this research lies in its practical implications, particularly for those involved in research implementation and adoption within policing, since it presents insight into the challenges to research and those who undertake it. For those on the frontline, this study has revealed important ways to bring research closer to frontline practice, to help deal with the increasingly complicated, challenging and frequently dangerous aspects of a frontline police officer's role.

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³ Detailed explanation of Q-methodology, and its associated terms and meanings, is provided in Chapter Five of this thesis.

1.8. Conclusion and Structure of the Thesis

The first chapter of this thesis has introduced the study itself and the literature and knowledge that underpinned it. It has presented the overarching research aim and an overview of the mixed-methodological approach adopted to answer the four central research questions.

The thesis will proceed in Chapter Two to provide a detailed examination of the literature on evidence-based practice in the field of policing. This chapter begins by introducing the concept of evidence-based policy within governmental decision making and the rise of evidence-based policy within public services and policing. It then focuses on the development of EBP, its discourses, the implementation challenges it faces and its relationship with the professionalisation of policing agenda. Finally, it narrows to evaluate the existing studies of officer receptivity to EBP in practice and identifies the gaps in knowledge that this study will seek to address.

Chapter Three presents the convergent parallel mixed-method approach adopted within this study. It commences with a presentation of the research aim and then describes the online questionnaire used in the quantitative strand of the study and the Q-methodology approach adopted in the qualitative strand. The design and administration of the research instrument, the analytical and reporting approach, and the ethical considerations are presented for each research strand. Finally, this chapter concludes with a discussion of the researcher's positionality within the study.

The study's results are presented in two chapters, reflecting the mixed-methodological approach. Chapter Four is concerned with representing the quantitative data in response to the questionnaire. Firstly, it discusses the results relating to the theme 'Receptivity to Research', and secondly the results relating to 'Challenges to Research'. Chapter Five explores the qualitative data that emerged from the Q method approach and presents the results according to the 'Receptivity to Research' and 'Challenges to Research' themes.

Following on from the two results chapters, Chapters Six and Seven discuss the data analysis and convergence of the two sets of results, bringing together the main findings from both strands in a narrative discussion. Chapter Six presents the findings relating to the theme of 'Receptivity to Research' (in response to RQ₁ to RQ₃), and Chapter Seven presents the findings relating to the theme of 'Challenges to Research' (in response to RQ₄).

Chapter Eight concludes this thesis by summarising the key findings from Chapters Six and Seven. It also identifies the study's limitations before moving on to present the theoretical and practical implications of this research alongside propositions for future research. Finally, this chapter presents the unique contribution to knowledge that the study makes and considers the nature of future debates relating to EBP.

Chapter Two: Literature Review

2.1. Introduction

This literature review follows a traditional, narrative approach and presents a summative critique of the relevant studies, theories and existing knowledge that are pertinent to this study (Cronin *et al.*, 2008). The review has multiple purposes. Firstly, it systematically reviews and presents the key areas and theories underpinning the research. Secondly, it offers an analytical framework through which to understand the literature and the points raised to empirical enquiry. However, its central function is to identify the gaps in knowledge that this research will address, which is aligned to the central research aim:

To better understand police constables' and sergeants' receptivity to research within frontline policing in England.

This chapter is subdivided into three areas. Firstly, Section 2.2 provides the contextual background to evidence-based policy within governmental decision making and the rise of evidence-based policy within public services in England and Wales, specifically related to policing. Section 2.3 explores the conceptual development of EBP and its core components and addresses its central role in police reform, in particular its relationship with the professionalisation of policing agenda. Subsequently, Section 2.4 presents the various EBP discourses, specifically what constitutes acceptable evidence, the appropriateness of methodologies and the role of experience as evidence. Section 2.5 demonstrates the current challenges associated with the implementation of EBP at organisational and officer levels, and Section 2.6 considers more specifically the role of police cultures in shaping responses to EBP. Finally, Section 2.7 narrows the focus to evaluate studies of officer receptivity to EBP in practice and identifies the gaps in knowledge that this study seeks to address.

2.1.1. Literature Review Methodology

Before proceeding to examine the relevant literature, it is important to explain the approach to accessing appropriate material that is used in this study. The search for relevant source material began by identifying online databases through the Northumbria University online cataloguing and search system, Google Scholar, EBSCO and the College of Policing (CoP) Library. This process identified the following databases: Cambridge Core, Emerald Journals,

Oxford Academic Journals, Oxford Journal Online, SCoPus, Sage Premier Journals Collection, Springer Journals, the Taylor and Francis Library Journals Collection, the Web of Science and Wiley Online.

Using a variety of keyword descriptors (shown in footnote 3 below), the databases were searched for relevant material.4 The basic Boolean search term 'AND' was used to link the search term 'police' to the keyword descriptors to expand the literature search. In searching for suitable material, each search was filtered to provide peer-reviewed journals only, and the period was initially limited to between 1990 and 2022, covering the period marking the evolution of evidence-based policing (EBP). The abstracts of the articles returned via the initial search were further screened and selected or deselected based on their relevance to the keyword descriptor and the research aim. Of these articles, each was further evaluated based on the credibility, validity and reliability of the content, alongside the following three criteria: 1) how recent the source was; 2) its relevance to the research aim, and 3) the credibility of the author. In assessing the credibility of an author, focus was placed on the author's scholarly expertise as a recognised expert in their academic field.⁵ Beyond the defined year search parameters and peer-reviewed journals, other works of key policing scholars were examined to provide historical and contextual background and to define important concepts in the field of EBP. Finally, a snowball method using the reference lists of suitable articles yielded additional relevant sources of literature.

2.2. Evidence-Based Policy: A History

To situate this study within the existing literature, this contextual section of the literature review begins by presenting a broad overview of the evidence-based policy agenda, before moving on to discuss evidence-based social policy and practice within UK public services, and more specifically, within policing in England and Wales.

In the early part of the 20th century, public servants were viewed as experts in their fields, and as such, there was a prevailing assumption that they could be trusted to carry out their duties

⁴ These descriptors included evidence-based policing, evidence-based policy, evidence-based practice, professionalisation, evidence, organisational culture, occupational culture, research implementation, receptivity, experimental criminology and crime science.

⁵ In assessing the credibility of an author, it is recognised that the biases of the researcher may influence the literature selection, thus impacting on the credibility and objectivity of the literature review itself. In acknowledging the potential biases emanating from my policing background, when assessing the literature for inclusion based on author credibility, I endeavoured to include only peer-reviewed literature from respected and well-known academic authors within the relevant field.

without question or challenge (Baron, 2018). However, after the two World Wars, on both sides of the Atlantic, the changing face of society and the emergence of a better educated and increasingly well-informed public, led to the increased scrutiny of decision-making processes adopted by public servants when spending taxpayers' money. Situated against this backdrop of decreasing public trust and political scepticism towards professionals tasked with delivering public services, the use of evidence within policymaking has become a means of satisfying the increasing demands for accountability, transparency and scrutiny in every area of government policy (Davies *et al.*, 2000).

Central to the evidence-based direction of public resource allocation is the use of rigorous research methods, and in particular, the use of randomised control trials (RCTs). In defining evidence-based policy, Baron (2018, p.40) highlights the use of RCTs as the means by which to 'build credible evidence about "what works" to improve the human condition'. What constitutes rigour in evidence generation to inform decision-making is a central tenet of evidence-based policy and is the subject of debate for policymakers, academics and more recently, practitioners (Baron, 2018).

The existing literature relating to evidence-based policy is extensive, with early work focusing on its emergence from the evidence-based medicine tradition of the 1960s and 1970s. It is, however, recognised that the use of social scientific evidence within social policy was much slower to gain momentum, with the relationship between research and policy 'characterized by tension and ambiguity' (Weiss *et al.*, 2008, p.31). Whilst much of the early literature focuses on the benefits of an evidence-based approach to policymaking, international literature from the last forty years also presents a complex picture of the realities of evidence generation, translation and implementation, from the macro at governmental level, to the micro at professional practice level (Sanderson, 2003; Baron, 2018).

The international and national social policy literature of the last thirty years also acknowledges a rapid rise in the intrinsic value placed on evidence. The literature speaks of the decline of judgement-based professional practice, in favour of rational, evidence-based practice across all public services, including policing. Within the UK, it was the 'modernising' or reformative Blair government of the 1990s that can be credited with the formal introduction of evidence-based policies in the UK, replacing the 'ideologically-driven politics' of the post-war years (Sutcliffe and Court, 2005, p.3). Following the publication of the UK government's White Paper, *Modernising Government* in 1999 (Cabinet Office, 1999), an increasing emphasis has been placed on the use of evidence in social policy to decide how to best spend public money,

and also how to deliver and improve public services across security, health and wellbeing, work and education.

Furthermore, the introduction of the 'What Works Network' by the UK Government in 2013, incorporating independent specialist evidence centres for social policy, was a testament to the strength of government commitment to evidence-based policy at the time. Working in partnership with the Economic and Social Research Council (ESRC), the network now incorporates nine independent 'What Works Centres', three affiliate members and one associate member (Bristow *et al.*, 2015). These centres are tasked with producing and disseminating evidence to 'local decision-makers, supporting them in investing in services that deliver the best outcomes for citizens and value for money for taxpayers' (Cabinet Office, 2013).

Despite the altruistic aims of evidence-based policy, several recurring critiques appear within the literature. Firstly, the reliance on evidence deriving from systematic reviews and meta-analyses of outcome-focused evaluations from RCTs assumes that policies based on experimental data are replicable and can be easily transferred elsewhere (Hough, 2010; Greenhalgh and Russell, 2021). However, these experiments lack external validity, and as such, results cannot be generalised or moved elsewhere. It is the case, therefore, that this is evidence of what could work, as opposed to 'what works' (Brown *et al.*, 2018; Wood *et al.*, 2018). Furthermore, others argue that a focus on the question of 'what works', overlooks other important questions and considerations, for example, the appropriateness and what the 'desirable ends' or goals of a policy might look like (Greenhalgh and Russell, 2021, p.310). Sanderson argues that there is a need to extend the 'what works' position further, to effectively identify 'what is "appropriate" in addressing complex and ambiguous social problems, embracing ethical-moral concerns' (2003, p.331).

Secondly, there is an emerging recognition amongst social scientists that whilst evidence-based policy is built on the rational assumption that better policy analysis leads to effective decision-making, the practical realities and conflicts of interest in political decision-making make this difficult. Political decision-making, 'characterised by bargaining, entrenched commitments, and the interplay of diverse stakeholder values and interests' (Head, 2010, p.77), means that evidence cannot ever be truly value-free (Cairney and Oliver, 2017). This argument adds weight to the policy-based evidence debate, where policy-based evidence is the antithesis of evidence-based policy. Indeed some critics of governmental decision-making argue that evidence, which conflicts with political and ideological values, is often neglected, misrepresented or 'cognitively selected' (Strassheim and Kettunen, 2014, p.263) to support a

policy that has already been decided upon (Hunter, 2009; Saltelli and Giampietro, 2017; Cairney, 2019).

Over the past decade, much of the debate within social policy theory has turned from research paradigm debates to, more specifically, what constitutes acceptable evidence to inform decision-making. For example, Sanderson (2003, p.3) highlights that to improve the effectiveness of government policy, two main forms of evidence are required: firstly, evidence that promotes accountability and shows governmental effectiveness in terms of results; and secondly, evidence which promotes improvement through effective programmes and policies. Thus, despite the debate having moved away from calling for greater use of rigorous methods, towards understanding the nuances of sophistication in examining the contextual factors which help to explain programme effectiveness, (Head, 2010), there is nevertheless continuing recognition that policy evidence ought to be based upon a hierarchy of evidence (Ratcliffe, 2017; Doleac, 2019).

Whilst much of the evidence-based policy literature remains primarily theoretical, there is an increasing body of empirical evidence which concentrates on the challenges of using evidence in policy and practice (Oliver et al., 2014; Cairney and Oliver, 2017), significantly, the evidence-practice policy gap (that is, the difference between what the best available evidence suggests and what occurs in reality; Talbot and Talbot, 2015; Mols et al., 2020). In summary, this literature highlights three key factors in enabling the use of evidence: (i) the importance of the relationship between decision-makers and researchers; (ii) the need for clear and readily accessible evidence; and (iii) recognition of the differing views of 'evidence' espoused by academics, policymakers and practitioners (Weiss et al., 2008). As Head (2010) notes, whilst the need for sound evidence provides the basis upon which to build social policy, 'the dynamics of policy-making are deeply affected by institutional, professional and cultural factors, which will differ across policy domains and issues' (2010, p.80). Despite the body of knowledge which concentrates on the ideals and challenges of evidence-based policy, there is much less attention within the literature placed on the practical application of science, on the implementation of evidence-based policy in practice (French, 2018). The science of implementing evidence-based policy is discussed in more detail in Section 2.5.2.

Having presented a summary of the history of evidence-based policy, together with an overview of the challenges and enablers to the use of evidence, the following Section proceeds to discuss evidence-based practice within policing, as the embodiment of the 'evidence-based policy police research tradition' (Bradley and Nixon, 2009, p.427). It provides

a brief account of the origins of evidence-based policing (EBP) and discusses it within the context of the police professionalisation agenda.

2.3. Evidence-Based Policy and Practice in Policing in England and Wales

2.3.1. Evidence-based policing

Initially presented by US experimental criminologist Professor Lawrence Sherman in his seminal 1998 paper of the same title, evidence-based policing (EBP) as a concept is the embodiment of evidence-based policy in policing. Sherman defines EBP as a method 'of making decisions about "what works" in policing: which practices and strategies accomplish police missions most cost-effectively' (Sherman, 2013, p.377) and thus cements evidence-based policy within policing practice. Sherman asserts that EBP is a means by which to parse out police practices historically based on 'assumptions, tradition, or convention', citing the medical profession as the 'exemplar of a profession based upon strong scientific evidence' (Sherman, 1998, p.2). His call to the international policing community has been to move towards the production of academically sound, empirical research evidence of 'what works' in police interventions.

EBP has been recognised as a concept internationally since the 2000s, but it is arguably over the last decade that worldwide interest has increased. As in other evidence-based policy fields, numerous international and national research collaborations between academics and policing organisations have emerged, as governments have increased their demand for evidence to support decision making in crime control. Examples of collaborations include the George Mason University's Center for Evidence-Based Crime Policy (USA) and the Australia Centre for Excellence in Policing and Security. In the UK, the 'What Works Centre for Crime Reduction' (WWCCR) jointly funded by the College of Policing (CoP), the professional body for policing in England and Wales, and the ESRC shares research knowledge and evaluations of tactics that are deemed to work (Lumsden and Goode, 2018). At a national level, the N8 Policing Research Partnership (N8PRP) formed in 2013 is an example of a collaboration

⁶ More recently, within the UK, the professional body for policing in England and Wales, the College of Policing (CoP) has defined EBP as a policing approach in which 'police officers, staff and volunteers create, review and use the best available evidence to inform and challenge policies, practices and decisions' (College of Policing, 2021d).

between eight universities and eleven police services and Offices of Police and Crime Commissioners (OPCCs) in England (Crawford, 2020).

Beyond those tasked with evidence-based policy reform, is a growing and international movement of societies of 'interested parties' — largely police practitioners and academics — seeking to take ownership of the police 'profession' and the science of the profession (Martin and Mazerolle, 2015). A now widely recognised international network of Societies for Evidence-Based Policing (SEBPs) includes the UK Society for Evidence-Based Policing (SEBP), established in 2010, the Australian and New Zealand Society for Evidence-Based Policing (ANZ-SEBP) established in 2013, and the American and Canadian EBP societies (ASEBP and Ca-SEBP) established in 2015 (Mazerolle *et al.*, 2022). Collectively, these societies promote the use of the best available research evidence in policing, the production of research evidence from the collaboration of practitioners and academics and support the dissemination of practitioner-focused research among their members (SEBP, 2022).

Against this backdrop of interest in international police reform and the wider, EBP movement, as the number of collaborations between academic institutions and policing have increased, so too has the volume of research evidence relating to policing policy and practice. Crosssectional studies of trends in police research since the 2000s have shown an upward trend in the overall number of studies between 2000 and 2014 (Wu et al., 2018) with the largest percentages focusing on strategies, but with relatively few, outcome evaluation studies (Beckman et al., 2003; Mazeika et al., 2010; Wu et al., 2018). Yet, despite the vision for policing to utilise the best available evidence to inform decision making, much of the literature continues to suggest that the production, adoption and implementation of evidence within policing is a far from simplistic endeavour, thus reflecting the challenges faced by evidencebased policy more broadly. Challenges relating to the translation of evidence into practice and broader reform resonate throughout the dominant discourses within the current policing literature. Inextricably linked to ideas about UK police reform is the concept of professionalisation, underpinned by evidence-based practice. What follows is a summary of what is known of the police professionalisation agenda and the relevance of higher education to evidence-based policing more broadly.

2.3.2. The professionalisation agenda

Police professionalisation is not a new concept: it has featured in international academic debates for over sixty years (Beckman, 1976; Rojek et al., 2012; Green and Gates, 2014).

Many have viewed professionalisation as a vehicle for securing political independence, particularly within Western democracies (Rowe *et al.*, 2016; Roach, 2021). It is only over the last two decades that calls from stakeholders to professionalise policing within England and Wales have gathered significant momentum. This emphasis on professionalisation is linked to increasing demands for modernisation within the service allied to reform, in the wake of national scandals such as Hillsborough, the Stephen Lawrence case, and most recently, the Sarah Everard case. These scandals have placed increased scrutiny on the behaviour of police organisations and their staff, at a time when the relationship between the public, the police and the government is under significant pressure. Professionalisation, with its links to political discourses around reform, is connected to improving police-public relations. It is viewed as being vital in enhancing legitimacy and maintaining policing by consent, at a time when UK policing is under increased political and public scrutiny (Ramshaw and Soppitt, 2018; Martin, 2021).

Calls for policing reform, in light of the changing and increasingly complex nature of policing, have also led to greater emphasis being placed on officers and staff within organisations to help build the profession's knowledge base to inform decision-making and change – a key tenet of a recognised profession.⁷ Martin, for example, argues that a profession, where practitioners hold the knowledge, is fundamental to enhancing practitioners' autonomy and discretion and retaining control over the delivery of their practice (2021, p.2). Therefore, evidence-based practice is widely recognised within the policing literature as a central requirement, if professional status is to be attained (Brown *et al.*, 2018). Others argue that philosophies such as EBP accentuate the use of 'technology, objectivity, and expertise' over 'the imperatives', the latter of which are harder to achieve but are of equal importance to policing in democratic societies and include: 'trust, legitimacy, accountability, and racial equality' (Sklansky, 2014, p.349).

Beyond the historical debates surrounding the merits of professionalisation within the literature, much of the recent UK police literature focuses on the Police Education Qualifications Framework (PEQF), the CoP's standardised training framework for officers and staff within England and Wales (College of Policing, 2022). Introduced in 2016 by the National Police Chiefs' Council (NPCC) in their ten-year strategic vision for policing, the Policing Vision 2025 presented the PEQF, with its curricular emphasis on theoretical education, alongside the

⁷ Green and Gates (2014, p.75) propose that to be recognised as such, a profession must be 'concerned with a society serving role, be self-regulating and governed by a distinct code of ethics', able to 'respond dynamically to an emerging body of evidence relating to the role emanating from academic research'.

traditional operational training requirements, as a means of transforming police education (NPCC, 2020). A key component of the PEQF is evidence-based practice, as a foundation for police professionalisation. The section below briefly describes what research tells us about the PEQF, and more specifically, graduates' responses to EBP, as the 'new breed' of professional officers (Charman, 2017, p.332).

In the PEQF field of research, much of the earlier literature tended to concentrate on the potential benefits of a standardised curriculum for the education, training and professional accreditation of officers and staff (Hough and Stanko, 2019; Belur *et al.*, 2020; Leek, 2020). However, as the PEQF cements its place within police education, a more recent body of evidence is beginning to emerge. This highlights the challenges associated with PEQF, including a lack of organisational infrastructure (such as staffing and resources) and more broadly, securing the cultural change necessary to support it within policing organisations themselves (Christopher, 2015; Ramshaw and Soppitt, 2018; Wood, 2020). A recent systematic review of police training programmes conducted by Belur *et al.*, also highlighted a 'disappointing' evidence-base for programme outcomes, arguing that there is an urgent need for a theory-based evaluation of the PEQF entry routes to determine which, if any, have been 'successful' in their outcomes (Belur *et al.*, 2019, p.88).

Studies are also beginning to focus on the experiences of police learners, those undertaking the three routes into policing. These have largely focused on the experiences of those following the Police Constable Degree Apprenticeship (PCDA) route (Leek, 2020; Watkinson-Miley *et al.*, 2021) and the Degree Holder Entry Programme (DHEP) (Hough and Stanko, 2019; Belur *et al.*, 2020). Outside the PEQF, others have focused on the experiences of serving officers undertaking degree-level study (Williams *et al.*, 2019). Whilst studies of policing students' experiences will undoubtedly add to the profession's knowledge base, they highlight a lack of empirical evidence which identifies how to maintain engagement with professional and academic knowledge once in the field and in practice.

Given the prominence of EBP in both policing and thus the PEQF syllabus, studies have focused more closely on EBP within the PEQF curriculum, also exploring students' views towards its use within policing organisations (Brown *et al.*, 2019; Pepper *et al.*, 2020). Much of the literature relating to graduates' views towards EBP acknowledges that whilst new officers are generally positive towards it, they are nevertheless largely disengaged from it in practice, citing a disconnect between classroom learning and the realities of police practice (Ramshaw and Soppitt, 2018; Brown *et al.*, 2019; Hunter and May, 2019). This disconnect between the theoretical and practical is not a new phenomenon. It resonates throughout the

police educational literature in general, closely linked to the continued importance of experience that officers emphasise in their role. In light of this disconnect and given the increasing focus on graduate officers to rapidly expand policing's knowledge base through their own research, there is arguably a significant and timely need for allied research that examines the evidence-based implementation of such emergent evidence into practice (Boulton *et al.*, 2020).

Having presented a summary of the literature relating to the PEQF and its relationship with EBP and the wider police professionalisation debate, the following section returns to EBP to discuss the main discourses evident in the current literature.

2.4. <u>Discourses in Evidence-Based Policing</u>

There are several reoccurring themes of debate relating to EBP which mirror those at the wider evidence-based policy level, and this section considers three of these. Firstly, it explores the nature of evidence in EBP and what counts as valid evidence. Here, it also defines evidence, specifically within the context of this thesis. Secondly, it considers debates about the appropriate methodologies for evidence generation; and thirdly, it discusses the science versus experience debate, focusing on the tendency amongst officers to rely more on experience in practical decision making. In doing so, it will be argued that whilst EBP is virtuous in its aims and intuitive in its appeal, the continued leaning towards empirical evidence potentially excludes other forms of evidence, including officer experience.

2.4.1. 'Evidence' in evidence-based policing

Most broadly, 'evidence' can be defined as 'the available body of facts or information indicating whether a belief or proposition is true or valid' (Pearsall and Trumble, 1996, p.487). The dictionary definition of 'evidence' pointedly illustrates the challenges in interpreting what exactly constitutes 'evidence', but it can be said to be that 'which can be independently observed and verified, and there is a broad consensus as to its contents' (Davies *et al.*, 2000, p.2). In the context of EBP, it is largely left undefined within the existing literature. Traditionally considered to be empirically derived, the 'evidence' needed to reform policing practice as initially postulated by Sherman, was that obtained through rigorous and credible research methods, focused on principles of 'targeting, testing and tracking' and aligned to outcomes and evaluation (2013, p.6).

In its definition of an EBP approach, the CoP calls for 'the best available evidence', with an emphasis placed on the availability of the evidence, 'to inform and challenge policies, practices, and decisions' (College of Policing, 2020). The CoP is arguably cautious in its approach to defining what constitutes 'best evidence', instead suggesting that evidence generation will use appropriate research methods and sources for the question being asked; it thus implies a pragmatic approach to evidence creation. It accepts that evidence with limited formal research such as 'professional consensus and peer review' could be accepted as the best that is available if it was obtained through a clear and transparent process (College of Policing, 2020). Nevertheless, there is a continued emphasis on evidence obtained through empirical methods, over non-empirical evidence such as officer experience and knowledge. Beyond the CoP, there is, however, a growing volume of literature calling for the inclusion of multiple forms of evidence in EBP, further than that produced through experimental and other empirical methodologies (Sparrow, 2011; Gundhus, 2012; Brown *et al.*, 2018). This focus recognises officer experience as knowledge and evidence (Fleming and Rhodes, 2018).

The etymology of the word 'evidence' is grounded in the notion of experience, where experience is defined as 'practical contact with and observation of facts or events' or 'the knowledge or skill acquired by a period of practical experience of something, especially that gained in a particular profession' (Pearsall and Trumble, 1996, p.492). Thus, it also recognises the value of tacit knowledge, beyond that which has been observed empirically. Within this study, Fleming and Rhodes's definition of experience is adopted, that is 'the practical knowledge about the world amassed by individuals in an organisational and work context' (Fleming and Rhodes, 2018, p.7). Here, evidence is deemed to be knowledge, derived from a range of sources, where knowledge is defined as 'facts, information, and skills acquired through experience or education; the theoretical or practical understanding of a subject' or 'the sum of what is known' (Oxford University Press, 2022c). In recognising that police draw on a variety of different types of knowledge to inform their decision making and professional practice, a more inclusive conceptualisation of evidence has been adopted in this study, encompassing that which is research derived and beyond, and acknowledging experience as a valid form of evidence.

In the context of evidence-based practice, Kitson *et al.* (2004, p.83) argue that knowledge can largely be divided into propositional knowledge and non-propositional knowledge. Propositional knowledge is derived from research and scholarly activity and is 'formal' and

⁸ Any such research ought to present the methods adopted and the limitations of the study. It must also be peer-reviewed (College of Policing, 2020).

'explicit' in nature; it is generally recognised within evidence-based practice as superior. Conversely, non-propositional knowledge is predominantly practice-derived, informal and implicit; it forms part of professional craft knowledge, comprises tacit professional knowledge and personal knowledge and is linked to individual life experiences. Similarly, within policing scholarship, Fleming and Rhodes (2018) postulate that officers make use of a variety of knowledge sources, woven together using their experience. They define four overlapping notions of experience: occupational culture, local knowledge, institutional memory and craft. It is argued that it is this drawing together and integration of a range of propositional and non-propositional sources of knowledge, informed by a range of credible evidence bases, that enables practitioners to practice evidence-based policing.

Having defined evidence within the context of this study, it is further asserted that the practical use of evidence can be broadly divided into two areas: evidence to support management issues and evidence to support policies and practices (Brown *et al.*, 2018, p.40). This study is primarily concerned with the use of evidence to support practice and will therefore narrow the focus to this. The following section presents a discussion about the appropriate methodologies for gathering evidence for EBP.

2.4.2. Methodological debates

Early critiques of EBP and evidence-based policy more generally, argued that the experimental methodological approach was 'offered as the "gold" and perhaps only standard' by which to generate evidence, with a focus on 'efforts to address or deter persistent crime and disorder problems' (Greene, 2014, p.240). This reliance, at least initially, on the empirical and the positivist research ideal attracted much criticism of EBP by association (Hough, 2010). Arguably, the area which generates the most debate is the use of systematic reviews and RCTs adopted by experimental criminology, often to the exclusion of other methodologies (Sherman, 2007, 2009; Weisburd and Neyroud, 2011; Sherman and Harris, 2013).

Situated within experimental criminology and EBP, crime science is also an approach that calls for the use of rigorous scientific evidence, focused on outcome-based solutions to policing problems (Laycock, 2005; Tilley, 2016). Defined as 'the systematic application of scientific principles to the control of crime (including disorder, organised crime and terrorism)' (Laycock, 2014, p.394), crime science is founded on theoretical underpinnings from routine activity theory, crime pattern analysis and rational choice theory, tied to situational crime prevention, and the desired outcome of crime reduction through a multi-disciplinary approach (Brown *et al.*, 2018, p.43). Being outcome-driven, crime science also focuses on reliable

evidence, a sound knowledge base and 'what works' as desired outcomes. However, unlike purist versions of experimental criminology, it takes a more pragmatic approach to the application of methodologies, arguing that the best evidence is generated by the most appropriate methodology, that which is best suited to answering the research question (Laycock, 2012). Nevertheless, critics of crime science argue that it overreaches criminological theories and in being outcome-focused, sacrifices elements of scientific rigour in favour of timely results (Loader and Sparks, 2010). Furthermore, some argue that focusing only on crime control strategies and programme evaluations, places a restriction on its reach and risks 'skewing the knowledge base' towards crime, particularly acquisitive crime when the role of the police extends beyond crime control alone (Brown *et al.*, 2018, p.40).

Critics of experimental criminological approaches argue that focusing on specific empirical methodologies (systematic reviews, meta-analyses, RCTs and quasi-experiments) excludes other valid methods, favouring those which are expensive, complicated and which need to be strategically deployed (Thacher, 2008; Hough, 2010). Others argue that the epistemological value of the underpinning medical evidence model as applied to policing is limited, and the 'extrapolation of these models to social phenomena ... warrants some careful consideration' (Greene 2014, p.7) given that the 'medical-evidence' model sidesteps 'the differences between medical and social phenomena' (Sparrow 2011, p.21).

Given the criticism that methodologies aligned to experimental criminology present too narrow a research lens through which to view policing (Maxfield *et al.*, 2017; Wood *et al.*, 2018), scholars have more recently called for the recognition and inclusion of other research methods in police policy research (Bullock and Tilley, 2009; Sparrow, 2011). It has been suggested that the experimentally dominated EBP PEQF curriculum be extended to acknowledge other methodological approaches to research, to encourage practitioner participation (Brown *et al.*, 2018). The literature presents evidence that practitioners may be more inclined to adopt research methods beyond those favoured by experimental criminology. For example, the empirical work of Lumsden and Goode's (2018) found that officers and staff valued qualitative methods alongside mixed-methodological research designs. Others have similarly found that when asked, police practitioners are less supportive of involvement with RCTs and show a preference for being involved with less rigorous forms of research (Palmer, 2011; Lum *et al.*, 2012; Cherney *et al.*, 2019).

Some earlier studies recommended the direct involvement of practitioners in research processes, irrespective of rank, to help implement change within policing organisations. Wood

et al. (2008) explored the use of Participatory Action Research (PAR)⁹ in the Nexus Policing Project in Victoria, Australia and called for the active involvement of practitioners in the research process itself. ¹⁰ They argue that change in police cultural practices can occur in 'small shifts in ways of seeing and acting' at the individual micro-level and are not necessarily confined to the macro organisational level (Wood et al., 2008, p.73). This active involvement of practitioners, in collaboration with academics, they argued, nurtures and builds officers' knowledge, capacity and confidence to act as their own 'change agents' (Wood et al., 2008, p.83). Thacher also argues that PAR enables practitioners as 'situated knowers' to bring to the table different kinds of 'situated knowledge' to which they have unique access (2008, p.56). Practitioner involvement gives a voice to rank and file officers, often overlooked in the police research design process, and supports involvement in organisational change from the bottom up (Fleming and Wingrove, 2017). As has been recognised throughout this literature review, the challenge lies in establishing the conditions within policing organisations that make capacity building among practitioners possible (Thacher, 2008).

In building practitioner capacity, Sparrow argues that the creation of professional knowledge ought to be undertaken using natural science inquiry methods borne from 'iterative, developmental and exploratory experimentation' (2011, p.9). He argues that police practitioners are instinctively more attuned to using natural science methods, aligned to those used in their everyday role to 'find out what is happening, and why, and begin to explore how best to intervene' (2011, p.21). In valuing multiple research lenses through which to view policing and its occupational activities, others argue that diversity in methods 'should be seen as healthy for a broadly cast field of inquiry, at once providing epistemological variation as well as cross-disciplinary discussion' (Greene, 2014, p.206).

Whilst the literature surrounding the inclusion of different research paradigms continues to grow, another rapidly evolving debate focuses on the validity of practitioner experience as a reliable form of evidence upon which to base decision-making. Originally seen as a rejection of officers' knowledge and experience, scientific evidence was viewed as dichotomous to experiential evidence, thus giving rise to the science versus experience debate. However, the role of experiential knowledge appears in much of the current and emerging literature on EBP (Fleming and Wingrove, 2017; Fleming, 2018; Fleming and Rhodes, 2018) as the focus shifts from the potential benefits of EBP, to the ongoing challenges in its implementation. The

⁹ Participatory Action Research (PAR) is a methodology for creating positive social change using principles of participation, reflection, empowerment and emancipation of groups seeking to improve their social situation (Wood *et al.*, 2008).

¹⁰ The Nexus Project was 'a police-university partnership aimed at realising new ways of seeing and doing in the field of policing' (Wood *et al.*, 2008, p.72).

following section considers what is known about officers' reliance on experience in the context of their practice and as part of EBP.

2.4.3. Science versus experience

Much of the early literature focusing on policing organisations and their officers revealed an enduring view that police work is an occupational craft, underpinned by 'knowledge, skill, and judgment acquired by daily experience' (Willis and Mastrofski, 2014, p.322). The concept of police craft is synonymous with how officers create their knowledge. Historically, this knowledge was largely inherited, passed from one officer to another, and generated experientially by honing street skills necessary to be an effective officer and applying the craft, beyond the reach of science (Rowe *et al.*, 2016). This literature asserted that officers viewed science as the preserve of policymakers and for the higher ranks, and as such, held little interest for those on the frontline (Loftus, 2009). With its foundation in experience and craft, officers' experiential and tacit knowledge was, at least in the early days of EBP, largely excluded from the evidence base and thus viewed by some, as a rejection of officers' knowledge and experience (Willis, 2013; Fleming and Rhodes, 2018). This 'craft-science dichotomy' originally placed craft in opposition to science (Steinheider *et al.*, 2012, p.358). More recently, however, the discourse has moved beyond this dichotomous view, to focus on the integration between occupational craft and the science of EBP.

Previous research has established that whilst generally open to the idea of EBP, officers, particularly the rank and file, nevertheless continue to place greater value on operational experience in aiding their decision-making in policing situations (Palmer, 2011; Smith *et al.*, 2014; Telep and Lum, 2014; Willis and Mastrofski, 2014, 2018; Jonathan-Zamir *et al.*, 2019). There are several reasons offered for this, including officers' views of a disconnect between science and everyday practices, compounded by a lack of specificity from the evidence, beyond what works, in guiding officers in what to do and under what circumstances (Thacher, 2008; Willis and Mastrofski, 2014). Others argue that the preference for craft generated knowledge is based on physiological factors within the brain, not necessarily shaped by officer characteristics or demographic makeup (Jonathan-Zamir *et al.*, 2019). The acceptance within the literature of officers' proclivity to favour experiential knowledge over research-based knowledge, highlights the ongoing challenges to enacting change to practices and wider reform based on scientific evidence (Lum *et al.*, 2011; Sherman, 2013).

There is increased recognition that experience and science, and the different forms of evidence they offer, both have a role to play in current police practice. This challenges the

historical, underlying logic of the mainstream EBP position, with the debate between the relative merits of experiential and experimental knowledge, now having moved 'centre-stage' (Fleming and Rhodes, 2018, p.3). Police knowledge from experience is increasingly viewed as a combination of "art", "craft" and "science" (Wood et al., 2018, p.176) thus recognising the importance of both police experiential knowledge and formal knowledge in decision making and practice (Fleming and Rhodes, 2018). Jonathan-Zamir et al. (2019, p.1471) argue that 'policing scholars should begin treating scientific evidence and professional experience as necessary components in successful policing and encourage future inquiries on how the two can best be combined.' Similarly, Willis and Mastrofski (2014, p.326) call for the 'craft' to be treated with respect, asserting that 'the best practitioners of the craft should also be consulted when scientists want to learn what the best way is to achieve some objective, whether it is to reduce the recurrence of domestic violence or increase motorist driving safely' (2014, p.326).¹¹ Others view experience as essential to the decision-making process as a 'key to weaving' craft-based, political and research-based knowledge together, helping officers choose between different sources of evidence (Fleming and Rhodes, 2018, p.21). As we move to the next phase in the evolution of EBP, officer experience as knowledge, it is argued, is more likely to be recognised and accepted as an important and valid form of evidence on which to base decision-making. This is notwithstanding the irrefutable argument that there are limitations to all forms of social scientific knowledge, however, created, given that research is undertaken in value-laden, political and cultural arenas, policing included. Fleming and Rhodes (2018, p.21) argue that because of the very nature of such limitations, it is necessary to incorporate a range of evidence sources, including knowledge which comes from experience in officer decision-making. Research which adds to our understanding of practitioners' views towards the role, value and nature of research evidence, alongside experiential knowledge in their decision-making, is therefore timely, warranted and important.

To conclude this section, the study has identified the ongoing debates surrounding what constitutes acceptable evidence in the context of EBP, and the most suitable methods by which it should be gathered. However, it is important to note that the role of the practitioner in evidence generation and recognition of their experience as knowledge, particularly in light of the PEQF, is being increasingly pushed to the fore. In the next section, I present the challenges for accepting and implementing EBP by exploring these at the organisational and officer levels, moving between what is known from other fields and from policing literature.

¹¹ Following the introduction of the Domestic Abuse Act 2021 in England and Wales, the term 'domestic violence' has been redefined as 'domestic abuse'; a statutory definition which now recognises emotional and economic abuse, alongside sexual and physical violence towards victims (Home Office, 2022).

2.5. Challenges to Implementing Evidence-Based Policing

Evans argues that,

'...approaches to policy implementation can be separated into two broad groups: topdown policy theorists (who believe the policy to be a blueprint implemented by an organisational bureaucracy) and bottom-up theorists (who see the policy as created in a complex field of tensions and demands by enterprising front line workers) (2011, p.369).

In recognising that policy implementation can be viewed from two distinctive perspectives, Evans alludes to the complexities associated with implementing evidence-based policy at organisational and occupational levels in a given organisation. At the organisational level, attention has focused on the role of the organisation in implementation processes, necessary for supporting evidence-based practice and moving it beyond just its 'intuitive appeal' (French, 2018, p.425). In attempting to make sense of the organisation's role, Head postulates that existential challenges exist in isolating relevant research findings and translating these successfully in organisational and professional contexts. This is a process which involves complex issues involving 'education, relationships and collaboration' since policy often holds little guidance or relevance for practitioners in the field (Head, 2010, p.79). Therefore, a significant, organisational role lies in the provision of the appropriate guidance, clarity and context for its practitioners to support evidence-based practice. In drawing from experiences across the UK public sector, Nutley et al. (2002) assert that four requirements are necessary if public policy and professional practice, within organisations, are to be better informed by evidence. These requirements focus on an agreement of what constitutes 'evidence' and in what context, a strategic focus on building a robust knowledge base around priority areas, effective dissemination, and broad access to knowledge, with initiatives to incorporate evidence into policy and professional practice (Davies et al., 2000; Walter et al., 2002). Fyfe (2017, p.13) similarly reflects on this in a policing context, suggesting mechanisms to support effective research use ought to include effective dissemination, interaction between researchers and organisations, social influence from experts and peers, and facilitation processes, such as incentives and reinforcement.

2.5.1. Organisational level implementation

Implementation challenges are often cited as barriers to reform within policing. At the organisational level, Buerger (2010) argues that the networks which underpin and shape the research tradition of EBP, fundamentally, do not align with the structures of policing organisations. As such, organisations themselves are not set up structurally to adopt and make use of new knowledge presented to them. Therefore, whilst evidence from research is likely to be useful to police organisations, progress in adopting it is likely to be hindered if there is a lack of understanding of the infrastructure needed for effective implementation (Alpert *et al.*, 2013). Several recurring challenges associated with organisational structure are noted in the literature, firstly, basic organisational imperatives and cultural difficulties, and secondly, 'communication, consultation and cooperation' issues associated with research relationships (Fleming, 2010, p.139).

Recent studies of EBP in UK policing organisations continue to find organisational challenges associated with a lack of clear strategic direction and poor communication of research plans with key staff within the organisation (Lumsden and Goode, 2018; Hunter *et al.*, 2019; Kadry, 2019; Mazerolle *et al.*, 2022).¹² Accordingly, the barriers to research implementation are often contextual, in that they relate to the organisation – internally as structural barriers and externally as political issues (Lum *et al.*, 2012). Internal institutional factors such as organisational culture, resources (financial, time and staff) and negative attitudes towards change, are viewed as having the potential to significantly impact embedding police research (Fleming and Wingrove, 2017; Kalyal, 2019; Palmer *et al.*, 2019).

In terms of research relationships, the different research perspectives held by academics and policing organisations are often cited as a barrier to research implementation (Fleming, 2010; Goode and Lumsden, 2016). This academic-practitioner research relationship narrative refers to a mutual role misunderstanding between police and academics, which thus inhibits successful partnership working between the two. This 'dialogue of the deaf' (Bradley and Nixon, 2009, p.428) continues to be cited as an ongoing obstacle to successful police-academic collaborations, despite their rapid growth in recent years (see Bradley and Nixon, 2009; Lum *et al.*, 2012; Bedford and Mazerolle, 2014; Lumsden and Goode, 2018). Linked to this is the complaint that research findings are often produced in a format ill-suited to policing organisations, further highlighting the differences between the researcher's aims and the

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¹² Gray *et al.*'s (2015) study of social workers' experiences of evidence-based practice similarly found that at the organisational level, challenges were presented by lack of clear strategic direction and management and issues with internal communication.

organisation's wants and needs (Fleming, 2010; Strang, 2012; Crawford, 2020). Police organisations seek research that is neatly packaged, emphasising evidence-based data which can directly inform practice and be used in a practical way to drive policy, and where findings have been transformed into policies and procedures on their behalf (Fleming, 2010). Yet despite these relationship challenges, the literature nevertheless recognises that the relationship between academic and practitioner can be mutually accommodating and even successful (Marks, 2009; Fleming, 2010; Steinheider *et al.*, 2012). Furthermore, Mazerolle *et al.* argue that 'pushback' by organisations and practitioners to EBP should not be viewed as inherently negative, but rather an essential element in the process of adaptation, as both move towards making 'real change to their DNA' (2022, p.161).

Beyond the academic-police relationship debate, there are several structural issues within policing organisations which are viewed as impeding the implementation of evidence-based practice (these apply to public sector organisations more broadly, and policing specifically). They include organisational culture and resources, the quality of supervisors, knowledge and ability of practitioners, locating evidence through communication and prevailing attitudes towards EBP and the research environment created (Chappell, 2009; Gray *et al.*, 2014; Kalyal *et al.*, 2020).¹³ These structural issues, or organisational characteristics, appear in a growing body of police evidence, presenting examples of implementation failure due to structural issues within-host policing organisations (Chappell, 2009; MacQueen and Bradford, 2016; Fyfe *et al.*, 2018). Yet within these emergent studies, the emphasis largely continues to focus on the success or otherwise of the study itself, aligned to a notion of what works in given contexts. However, studies of the implementation of research and research-based tactics (RBTs) in the policing field, arguably fail to make use of evidence, or implementation science, to inform the implementation process (an irony not lost on the author and reflected upon later in Section 3.9).

One example of this can be seen in Kadry's empirical study (2019) of an EBP approach toward commercial burglary in Greater Manchester. This study highlighted a lack of organisational willingness to invest officer time, resources and training for research integrity to be maintained. At the officer level, negative perceptions about EBP and receptivity towards research also challenged the implementation of the initiative (Kadry, 2019). Kalyal *et al.* (2020) in their wider study of Canadian officer receptivity towards research, asked participants via a survey to

¹³ For example, Yoo *et al.*'s (2019) study found that whilst nursing practitioners' attitudes are important, an organisational culture that has a willingness and readiness to support evidence-based practice plays a stronger role in shaping practitioners responses to implementation.

consider how successful their department had been in implementing past initiatives.¹⁴ They found that officers viewed a lack of staff buy-in, communication and management support for new or innovative strategies to be the main challenges to successful strategy implementation.

Communication, as a structural issue and a challenge to implementing EBP, is repeated throughout the literature, from the strategic level to the officer level and centres upon two aspects namely research purpose and research methods (Slothower *et al.*, 2015). Research studies draw attention to the potential dual role of effective communication in the implementation of research within policing practices. Firstly, at an organisational level, it is needed to convey the benefits of an EBP approach, and secondly, it secures officer buy-in for involvement in research in the field and the use of practices emanating from such research (Sherman, 2015; Snyder *et al.*, 2019).

MacQueen and Bradford's study (2016) offers a closer examination of the role of communication in the implementation of research within the field. Based upon a retrospective analysis of the implementation of a large-scale RCT in Scotland, designed to test public perceptions and procedural justice in road traffic encounters, group interviews with frontline officers revealed a series of communication breakdowns during the RCT period, which resulted in implementation failure. These breakdowns in communication amounted to officers lacking an understanding of the research aims and objectives and their role within the research process. The difficulties and practical realities of implementing RCTs in the policing field are recognised elsewhere in the literature (Weisburd, 2000; Strang, 2012; Slothower *et al.*, 2015; Kadry, 2019). Furthermore, Macqueen and Bradford's findings also revealed a suspicion towards the motives of senior management and the researchers themselves. This suspicion about the motivation for the research was based on a lack of 'meaningful communication' of key messages between frontline officers and mid-level management, highlighting the existence of cynicism towards the research aims as a dominant aspect of occupational culture (MacQueen and Bradford, 2016).

¹⁴ Participants included sworn officers and civilian employees across all ranks (n=598) with 353 participants choosing to answer the open-ended question. Of the 353 participants who answered the open-ended question, 107 were constables.

¹⁵ The original research study repeated the Queensland experiment evaluation of the Scottish Community Engagement Trial (ScotCET) (Macqueen and Bradford, 2015).

2.5.2. Officer level implementation

Concerning implementation at the officer level, Fyfe *et al.* (2018) argue that often within police reform processes, emphasis is placed on reform happening at the organisational level rather than at the rank and file level. Here, previous research highlights the absence of a shared voice of officers in how policing ought to be carried out. Relatedly, Lumsden and Goode (2018) discuss how ways that EBP might work in practice are often based on top-down, 'espoused (supportive) theories' from the CoP, with little known about bottom-up responses which work at strategic or ground level (2018, p.23). This is despite a general recognition that rank and file officers can be agents of change in reform programmes (Sklansky and Marks, 2008; Toch, 2008; Wood *et al.*, 2008; Alpert *et al.*, 2013).

Although there is an emerging body of evidence relating to the structural conditions necessary to implement and manage research projects and relationships in policing (Steinheider *et al.*, 2012; Strang, 2012), much less is known about the implementation of evidence-based practices at the officer level. What is currently known about individual practitioners' implementation of evidence-based tactics tends to come from fields beyond policing, such as nursing and social work, where the literature highlights the importance of organisational buyin and active practitioner involvement in shaping responses to implementation (Gray *et al.*, 2015; Mallion and Brooke, 2016; Bullock and Lavis, 2019). Within EBP, there is a small body of literature that focuses on officers' views towards their involvement in research and their use of RBTs in their practice (Fleming and Wingrove, 2017; Fleming, 2018).

Certain effective implementation strategies for evidence-based practice at the organisational level are discernible in the existing literature, but there is a dearth of empirical evidence to support the adoption of such strategies (Sherman, 2015; Santos and Santos, 2019). Lumsden and Goode (2018) highlight the distinction between the implementation of research projects and an individual's implementation of evidence-based tactics in practice, arguing that each holds specific implementation challenges. They call for evidence-based implementation which considers both individual practitioner behaviour alongside organisational culture.

There is also a widening recognition within the broader social science literature that evidence-based practice requires evidence-based implementation and that a systematic and scientific approach to this is desirable (McNett *et al.*, 2021, p.74). In reflecting upon the implementation of EBP initiatives in nursing, McNett *et al.* (2021) caution about the risk of an emergent 'secondary gap' in knowledge, where knowledge and evidence of what works in the implementation of evidence-based practice are 'shelved', ignored or worse, and not

considered in the implementation efforts of EBP initiatives (2021, p.1). The science of implementation or 'implementation science', and the need for evidence to support effective implementation is well documented within the medical and nursing fields. However, within the policing literature, knowledge about evidence-based approaches to implementation is largely absent from the growing body of evidence about what works, what might work or what could work in police practice. There are gaps in the description and translation of research processes into practice, as well as understanding of the influences on implementation outcomes and evaluation (Nilsen, 2015). Others argue that for policing, the goal of translation ought to extend beyond practitioners' understanding and use of research evidence in their practice, to the institutionalisation of these concepts into everyday practice (Santos and Santos, 2019). Whilst it is acknowledged that policing, as a profession, is continually adding to its knowledge base, it is arguably far less practised at evidence-based implementation, and it is the latter which is required to achieve long-term sustainability in practice (Rojek *et al.*, 2012; Lum and Koper, 2017; Santos and Santos, 2019).

In summary, two important themes emerge from the implementation literature. Firstly, the challenges to implementing evidence in policing practice would appear to be largely structural, that is, situated at the organisational level and centred on the organisation's willingness and readiness to support implementation. Secondly, despite the existing police literature which identifies these challenges, there is limited empirical research which studies the 'what works' in terms of the implementation of EBP at both organisational and individual levels (Sherman, 2015; MacQueen and Bradford, 2016; Kadry, 2019). After considering the challenges to implementation, this literature review now moves forward to explore what is currently known about the influence of police occupational culture on the adoption of research amongst officers in frontline policing.

2.6. Police Culture and Evidence-Based Policing

Policing scholars have long argued that policing is shaped by the organisational and occupational cultures that operate within policing organisations.¹⁶ The following section discusses police culture and its potential to influence the implementation and adoption of EBP within policing organisations.

¹⁶ See for example Chan, 1996; Waddington, 1999; Rowe, 2007; Skolnick, 2008; Loftus, 2010; Charman, 2017; and Cockcroft, 2017.

Schein defines organisational culture as:

the pattern of basic assumptions that a given group has invented, discovered, or developed in learning to cope with its problems of external adaption and internal integration. (1984, p.3)

Similarly, Reiner defines culture as:

a complex ensemble of values, attitudes, symbols, rules, recipes and practices, emerging as people react to the experiences and situations they confront, interpreted through the cogitative forms and orientations they carry with them from prior experiences. (2012, p.116)

Both definitions refer to the shared thoughts and values of a group and learning from the experiences of others. Schein suggests that the assumptions learned by the group 'have worked well enough to be considered valid, and therefore to be taught to new members as the correct way to perceive, think, and feel in relation to those problems' (1984, p.3). Developed over time, group assumptions become 'less tangible, more tacit and therefore more ingrained within the organisational culture' (Charman, 2017, p.16). In its simplistic form, police organisational culture provides the rules and regulations which define how officers ought to interact and behave within the organisation as employees, based upon shared organisational values and beliefs. Police occupational culture, on the other hand, provides the unofficial rules and regulations which guide officers' relationships with colleagues and how they ought to behave within the group to which they belong culturally. It is this network of shared understandings and meanings that link the macro-level understandings of police organisations with the behaviours and actions of officers at the micro-level.

Early studies of policing organisations highlighted them as 'quasi-military hierarchical institutions with standardised operational procedures and practices', and territorially structured, with robust discipline mechanisms enforced through rules and regulations (McLaughlin, 2007, p.51). Contemporary studies continue to identify organisational cultures which adopt 'command and obey' policing styles to manage relationships between management and officers, alongside 'conservatism, suspicion, cynicism, sense of mission, machismo and pragmatism' throughout occupational culture (Reiner, 2012, p.118). However, whilst Sklansky (2007, p.20) cautions against the 'cognitive burn-in' of what police occupational culture is, others argue that the enduring characteristics, far from being clichéd,

'are alive and well' (Loftus, 2010, p.3) in contemporary policing, despite wider societal changes and changes to the police working environment (Charman, 2017).

The nature and presence of organisational and occupational cultures in policing are well established within the literature, alongside the complexities they add to implementing broader change and reform within policing (Loftus, 2010). In the context of reform, EBP as a vehicle for change is influenced by both organisational and occupational culture at all levels within the policing organisation. Much of the culture literature highlights the role of the organisation in shaping cultural responses, at organisational and officer levels (Gottschalk and Gudmundsen, 2009; Loftus, 2010; Mols *et al.*, 2020). Yet, whilst organisations 'seek to impose culturally driven values upon their staff, these values often conflict with occupational values associated with practitioner cultures' (Cockcroft, 2014, p.8). In the context of EBP, organisational and occupational beliefs arguably present challenges to EBP, specifically where they are at odds with each other, or the policy values or aims. The following section proceeds to consider in greater detail the role of organisational culture in shaping responses to EBP in practice, by presenting accountability as a method by which to control practice.

2.6.1. Organisational culture in shaping responses to EBP

2.6.1.1. Accountability

In considering the role of organisational culture in the context of reform through EBP, it is important to acknowledge, alongside evidence-based policy in public services in the UK, the New Public Management (NMP) philosophy. This philosophy, espoused by the New Labour government of the mid-1990s, sought to achieve cost-effectiveness and governmental control over public policy and spending through stringent performance management, managerialist strategies and an emphasis on top-down control mechanisms. Despite the evolution, at the same time, of a more collaborative, 'softer' evidence-based policy approach to public sector reform (Caffrey *et al.*, 2019, p.537) there has been a continuing and significant emphasis on performance management, as a dominant and enduring mean by which to control public organisational performance (Johansson *et al.*, 2015; Caffrey *et al.*, 2019).

The police literature presents a history of the growing prominence of performance management and measures, attuned to the hierarchical structures of policing organisations, to demonstrate efficiency, productivity and performance (Butterfield *et al.*, 2004; Wood *et al.*, 2008; Barton and Barton, 2011; de Maillard and Savage, 2022). This enduring focus on performance management, at the organisational level, emphasises control through targets,

productivity and effectiveness measured in quantitative terms. However, Heslop argues that in the drive towards accountability and principles aligned to NPM, British policing has become a collection of 'McDonaldized' institutions, focused on principles of 'calculability, efficiency, predictability and control' (2011, p.312). He postulates that in aiming for professionalisation, modernisation and reform, bureaucratic control strategies paradoxically leave officers facing limits on their discretion, thereby becoming deskilled and micro-managed. Beyond this, the literature further recognises that top-down processes, which instil the virtues of accountability and performance management, risk stifling officers' sense of professionalisation and run contrary to the broad principles of professionalisation in which officers have the agency and capacity to act (Butterfield *et al.*, 2004; Sklansky and Marks, 2008; Goode and Lumsden, 2016).

Whilst organisational cultures that focus heavily on accountability may impede reform by suppressing officers' agency within the processes, the literature also offers substantial evidence which highlights the conflict between organisationally defined measures as part of a performance regime, and officers' views of the true value or nature of their work (Cockcroft and Beattie, 2009; Wathne, 2020). This imbalance, between what is viewed as efficient and effective by the organisation, and what the practitioner views as effective and efficient, offers challenges for organisational reform based on evidence-based policy ideals (Kiely and Peek, 2002; Willis and Mastrofski, 2018). However, organisational decisions, consciously aligned to the moral and personal perspectives of practitioners, are of significance in understanding how practitioners find meaning in their practice and therefore what is of value to them (Bergman and Karp, 2021). In the context of organisational professional culture, performance targets set by police hierarchy may not be passed down or translated into the actions of officers as intended, and it is never a 'simple "top-down" process of transmission' (de Maillard and Savage, 2018, p.321). Accountability and performance management, as organisational constructs, can therefore shape cultural responses to EBP at the occupational level where compliance is measured. Conversely, the literature also recognises that organisational culture can, through positive values and beliefs, shape officers' and staff responses to change by guiding behaviours (Willis and Mastrofski, 2014). Likewise, the behaviours espoused by police leadership and observed by staff can help to facilitate change implementation (Murray, 2002). This is important in the context of police organisations, where numerous examples within the police literature illustrate that implementation often fails where the organisational culture 'lacks congruence with the way of thinking necessitated by the planned change initiative' (Kalyal et al., 2020, p.119).

Policing organisations and their cultures have shown a continued inclination to repeat what are viewed as successful methods of working or organisational practices, reinforced by past experiences (Alcott, 2012). Organisational memory, that is the 'collective knowledge and learned experiences of an organisation', reinforces ideas about what works and what does not, what course of action attracted criticism and what did not, based on these learned memories (Fleming and Rhodes, 2018, p.13). Institutional memory helps the organisation with anxiety avoidance, and thus presents challenges to change or reform programmes, particularly those which advocate the use of evidence in place of experience. Embedded institutional memories, whether experienced or narrated, and which remember past strategy failures, can have a long-term detrimental impact on future initiatives by fostering 'cynical attitudes towards future change initiatives' (Kalyal *et al.*, 2020, p.118). This research will therefore explore specifically, officers' views in this regard.

2.6.2. Occupational culture

Moving on to consider police occupational culture, it too, like its organisational counterpart, is often cited in the international literature as a barrier to general reform in policing (Barton, 2003; Paoline, 2003; Skogan, 2008). The term occupational culture is often used 'as an explanatory variable to describe police resistance to all types of reform' (Fleming and Rhodes, 2018, p.7). In the UK, difficulties in carrying out long-term reform within policing recognises the sub-culture (discussed in greater detail in Section 2.6.2.1 below), particularly at the rank-and-file level, as significantly reducing the impact and effectiveness of police modernisation (Alcott, 2012). Beyond the challenges for broad reform, the literature also acknowledges occupational culture as a barrier to the implementation of EBP in police practice (Charman, 2017; Cordner, 2017; Paoline and Gau, 2018). Crank (1998) cited in Barton (2003, p.350) argues that 'many officers perceive attempts at reform as a direct threat to their integrity and authority to "police", which reinforces rather than diminishes the influence of police culture over line officers'. Others have suggested that the pragmatic approach adopted by officers in their day-to-day role has antitheoretical leanings (McCanney et al., 2021), which in some cases makes rank and file officers 'reluctant to contemplate innovation, experimentation, or research' (Reiner, 2012, p.132). Moreover, the literature highlights challenges to reform from occupational culture, largely based on a continued conflict between officer autonomy and organisational control measures, where the latter is viewed by some, as a rejection of officers' experiential knowledge and experience.

2.6.2.1. Occupational sub-cultures

Before proceeding to consider individual officer agency and autonomy in research adoption, as part of an occupational culture, it is pertinent at this stage to briefly discuss the existence of other sub-cultures within police occupational culture. Ruess-lanni's seminal study (1983) presented the concept of two sub-cultures within the police organisation, street cop culture and management cop culture. These sub-cultures, she argued, shared common goals of crime prevention and maintaining public safety, but differed in their views about the level and means by which these broad goals ought to be achieved. Scholars have also identified occupational culture differences between command and middle management, and the lower ranks (see Farkas and Manning, 1997; Paoline, 2003; Rowe, 2006; Stockdale, 2015; and Hendriks and Hulst, 2016). Charman for example, in her longitudinal study of police socialisation in a UK force, found that officers were more divided in their views and approaches to policing according to rank and role than they were by gender, with no differences based on length of service (Charman, 2017, p.147).

Studies have also identified cultural variations between policing roles and departments within the same organisation (Kraskaa and Paulsenb, 1997; Paoline *et al.*, 2000; Glomseth and Gottschalk, 2009). For example, Christensen and Crank (2001) found differences between officers in US urban and non-urban areas within the same organisation. Beyond the organisational context, Paoline *et al.* (2000) found cultural and attitudinal differences between two US police departments, and Harper *et al.* (1999) discovered notable differences in the cultural 'working personalities' of officers in an international study of three policing organisations (in Scotland, the United States and England). More recently, in identifying gaps in occupational culture knowledge, scholars have established a need for research to identify cultural differences at the individual officer level, to enhance the understanding of collective occupational culture (Chan, 1996; Paoline, 2003; Chappell, 2009; Loftus, 2010; Campeau, 2015).

Whilst examination of police culture at individual officer level is beyond the scope of this study, exploration of the interaction between occupational culture at different ranks within the organisation is of importance here, since officers' values and beliefs towards EBP may differ depending on their position within the organisation. The following section discusses the role of officer agency and use of discretion, at individual officer level, in the context of occupational culture.

2.6.2.2. Officer agency, autonomy and discretion

Situated within police reform debates, against a backdrop of accountability and performance management cultures, officers' agency and autonomy are often cited as a barrier to change (Cockcroft, 2020). Officer agency is the independent capability or capacity to act, allowing officers to choose whether to take part in research initiatives or apply RBTs. Moreover, an officer's autonomy, or the ability to self-govern, enables officers to act based on their motives and values, shaped in the workplace by organisational and occupational culture. Whilst officers do not necessarily act on their own motives each time, in the context of reform through EBP, their agency and autonomy present potential challenges to EBP, especially where individual values differ from the aims of the policy or research initiative.

Linked to the concepts of agency and autonomy in the context of EBP, the use of discretion is also of interest to those seeking to reform policing practices using evidence-based practice. Famously described by Dworkin as 'the hole in the doughnut' or 'an area left open by a surrounding belt of restriction' (1977, p.31), discretion has been viewed as 'a sphere of autonomy' within which an individual's decisions are left largely down to 'personal judgement and assessment' (Galligan, 1986, p.6). More simply, Evans and Harris define discretion as 'a series of gradations of freedom to make decisions' (2006, p.871). Execution of the policing role is fundamentally reliant on the use of discretion (Cockcroft, 2020). As many argue, the complex nature of the police role and working environment, make it impossible to do policing without it (Rowe, 2012; Buvik, 2014; Willis and Mastrofski, 2018); and as many have also noted, there is an inherent need for officers to be able to respond to the 'human' dimensions of situations and people (Sparrow, 2011; Buvik, 2014) with 'sensitive observation and judgement ... not reducible to programmed formats' (Lipsky 1980, p.15).

Discretion is often viewed dichotomously within the literature, that is, as having a positive or negative function (Rowe, 2012). In the context of reform, bottom-up perspectives present discretion as 'inevitable to deploy general rules, regulations, and norms in specific situations, which helps to improve the effectiveness of policy programmes and the democratic support for the programme' (Tummers and Bekkers, 2016, p.530). From a top-down perspective, discretion is often viewed as a negative function allied to autonomy, in which practitioners seek to act in pursuance of their own views or motives, thus circumventing policy aims or objectives (Reuss-lanni, 1983; Rowe, 2007) 'at the expense of both accountability and the proper function of the system' (Reuss-lanni, 1983, p.140).

Lipsky's (1980, p.3) seminal work focused on street-level bureaucrats (SLBs) as 'public service workers who interact daily with citizens in the course of their jobs' and who have a high degree of discretion and relative autonomy in executing their role, police officers included. The central premise of this work was that frontline practitioners play an instrumental role in the policy process since it is practitioners who deliver public policy at the street-level through their individual decision-making (Kelly, 1994; Maynard-Moody and Musheno, 2012). Lipsky postulates that this street version of the policy, as experienced by the public, is likely to be significantly different to that which is passed down from the top of the organisation to the bottom (Evans and Harris, 2006; Buvik, 2014). Therefore, the favoured top-down approaches to evidence-based policy, which are intended to collectively inform officer decision-making and practice, with the aim of reform, might be usurped by those on the frontline 'who will interpret policy directives by imparting their own local flavour into the mix' (Westmarland, 2016). Similarly, top-down approaches do not necessarily harness the entrepreneurship opportunities offered by the lower ranks and are thus juxtaposed with the ideals of professionalism to which policing is purportedly committed. Indeed some scholars argue that 'policy entrepreneurship' or policy generation does not have to be reserved for the traditional generators of policy, such as police leaders, over the traditional policy implementers or frontline officers (Arnold, 2015, p.312).

Lipsky argues that the characteristics of SLBs' jobs make it inherently difficult to significantly reduce the use of discretion, given the 'complex tasks for which elaboration of rules, guidelines, or instructions cannot circumscribe the alternatives' (1980, p.15). However, within the policing literature, there are many examples of attempts to control officers' discretion, aimed at improving individuals' access to consistent and evidence-based decision-making. Examples of this include restorative justice (RJ) practices based on reparation theories (Stockdale, 2015) and out-of-court disposals (Slothower, 2014; Weir *et al.*, 2021) aligned to theories of offender desistance.¹⁷ More recently, attention has been focused on the use of Artificial Intelligence in assisting police decision-making, thus lessening the role of agency in using discretion within decision making (Oswald *et al.*, 2018). Whilst the literature tends to concentrate on the success or otherwise of the RBTs themselves, less is known about the indirect and unintended consequences that such tactics have on officers' use of discretion within these processes.

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¹⁷ See also Grant and Rowe, 2011; Crocker, 2013; Johnson and Dai, 2014; Slothower, 2014; Slothower *et al.*, 2015.

It is well documented in the literature that, historically, attempts to curtail officer discretion through policy practices have often been met with resistance (Rowe, 2007; Grant and Rowe, 2011; Slothower *et al.*, 2015; MacQueen and Bradford, 2016; Kadry, 2019). Bounded discretion and curtailment of officers' use of discretion are often viewed, by practitioners, as a threat to professionalism and officers' agency (Rowe, 2007; Bergman and Karp, 2021). Whilst the use of discretion within established evidence-based processes is, by the very nature of the process, likely to be bounded, officers' application of discretion when taking part in research initiatives or studies is less obvious, but no less important. Officers hold a significant amount of autonomy to act per their own motives, and thus to apply discretion based on their values. Therefore, if they are suspicious of the motives of the researcher and the initiative itself, or their sense of agency is challenged within a study through bounded or curtailed discretion, then perceivably this may create further barriers to the implementation of EBP.

Furthermore, others argue that there is a key paradox: the greater the number of work-based rules, the more likely it is that use of discretion increases since there are more opportunities to bend and subvert the rules (Evans and Harris, 2004; Newburn, 2005). Whilst existing studies present evidence of general non-cooperation using discretion, there is limited understanding of this concerning EBP in frontline practice. Moreover, whilst it is clear from the literature that individual and occupational values, can influence decision-making and therefore, the use of discretion, less is known about officers' use of discretion to oppose involvement in research projects or the use of RBTs specifically, arguably given the relative newness of the topic.

Some evidence, relating to the role that officer agency and discretion can play in experimental interventions can be found in Wood *et al.*'s (2014) US-based study of foot patrol, as a place-based intervention, in a randomised crime reduction experiment using hot spot policing. In this study, researchers identified a conflict between the realities of dynamic police work and the artificial confines of experimental conditions. This conflict, they argued, was because the 'rigid parameters' and artificial nature of the experiment challenged the central tenets of foot patrol – officer agency, street-level knowledge and experience, and spatial authority – thereby creating a situation where officers sought to 'expand and modify their boundaries to respond to the adaptive nature of human behaviour' using their discretion (2014, p.374). In attempting to navigate these challenges, Wood *et al.* highlight the importance of involving officers in the design phase of an experiment, to identify potential issues of contention and to work with officers to establish appropriate and rationalised responses in such circumstances.

More broadly, their study highlights the importance of incorporating officer insight and involving officers firstly, to ensure 'long-term compliance and treatment fidelity' within the experiment itself, and secondly, to help street-level knowledge and experience align with managerial expectations of what can be achieved in an experiment (2014, p.377). This is important given that police leaders, supervisors and researchers cannot prescribe a treatment entirely, nor can the hierarchical-based chain of command be relied upon to enforce such experiments in a top-down approach (Weisburd, 2000).

Having considered in some detail the role of officer discretion in decision-making and practice, and in the context of resistance to reform, the following section explores the supervisory relationship and the influence of the supervisor in shaping officer behaviour towards EBP.

2.6.2.3. Supervisory relationship and role

There is a sizeable body of literature which highlights the theoretical role of the police supervisor in controlling officer practice and behaviour (Pearson and Rowe, 2020), but there is little empirical evidence which supports a causal relationship between supervisors and the behaviour of their subordinates (Engel and Peterson, 2014). There is also limited empirical research examining the supervisor's role in controlling officers' use of discretion (Reynolds, 2020). Much of the research focuses on the sergeant's influence on officer behaviour, rather than in shaping and controlling officers' use of discretion (Reynolds, 2020). Although beyond the scope of this study, the influence of the supervisor in the officer's application of discretion is of importance, especially given that, as highlighted above, discretion applied in accordance with officer values has the potential to shape officer responses towards EBP more generally. What is known about supervisory influence over officers' behaviour tends to come from studies focusing on accountability and performance management, arguably because organisational measures of effectiveness are easier to evaluate (Butterfield et al., 2004). In the context of research adoption and implementation, there is limited research which specifically explores the supervisor's role in influencing officers' attitudes towards research, the uptake of RBTs and participation in research activities.

The literature does demonstrate that rank-and-file officers hold different, role-related, sub-cultural values and beliefs to those above them (Reuss-lanni, 1983; Rowe, 2006). Butterfield *et al.* (2005, p.334) postulate that 'sergeants have become separated from their constables and identify with management rather than the 'street", thus shifting the cultural dynamics between rank and file, constables and sergeants. Conflicting aims and agendas between those who do the 'dirty work' of policing and those who provide formal leadership are based

on the different organisational pressures their role may be subjected to (Cockcroft, 2014, p.6). However, whilst the literature establishes that officers may have different aims and agendas based on their rank and role, far less is understood about whether these agendas influence officers' responses and behaviours towards EBP more specifically. Although sub-cultural differences can be viewed in terms of differences of opinion, others suggest that there is a stronger dynamic which places sub-cultures in conflict with one other, thus introducing the idea of more complicated and difficult relationships to navigate.

Lipsky (1980, p.17) goes as far as to suggest that 'different levels of the organisation are more appropriately conceived as intrinsically in conflict with each other rather than mutually responsive and supportive'; and Reuss-lanni (1983, p.142) similarly recognises a conflict between the two cultures of management and street cops, characterised by a divergence between the decisions made by those of higher rank and the actions of those in lower ranks. Within this process, it is the first-line supervisors or sergeants who actively interpret, construct and communicate policy for officers. Thus, an officer's interpretation of a policy can be shaped by how their supervisor has interpreted and wishes it to be applied (Pearson and Rowe, 2020, p.193). In policing organisations, it is assumed that officers are generally cooperative in their role, accepting of hierarchical authority, given accountability control mechanisms, and have limited scope to dissent. However, officers can successfully rebel by using discretion, when their beliefs are at odds with their supervisor's and the organisation's (Rosenberg et al., 2008). There is evidence in the existing literature that suggests opposition or kickback from officers, against organisational policy and procedures, is widespread (Rowe, 2007; Buvik, 2014; Hendriks and Hulst, 2016). Lipsky argues that 'a distinct degree of non-compliance' is to be expected 'if lower-level workers' interests differ from the interest of those at higher levels, and the incentives and sanctions are not sufficient to prevail' (1980, p.17). It is yet to be explored in more detail whether officers actively resist EBP research or the use of RBTs in policing.

Reuss-lanni (1983) also recognises that the relationship between the manager and the managed can be in conflict where distrust between the two is a key issue. She argues that street cop culture interprets management-instigated control and supervision as a lack of trust, where the greater the rank supervisory distance between the officer and the supervisor, the greater the feelings of distrust and sense of 'alienation' (Reuss-lanni, 1983, p.70). Lipsky (1980) argues that a critical feature of the working environment of SLBs is indeed their suspicion of the motives of their supervisors and management. Thus, their compliance with their supervisor's orders is conditional on whether they believe the orders to be sufficiently legitimate upon which to act. How an officer perceives the legitimacy of a supervisor's order is therefore likely to be of importance in the context of EBP policies in securing officers'

commitment or buy-in to the research initiative or tactic. Lum *et al.*, in studying officer receptivity to research, found that whilst officers were open to changing their approaches to policing activities in response to research evidence, they would only do so if it did 'not go against their personal beliefs or daily routines' (2012, p.81). Understanding what frontline officers' interests related to EBP are, and specifically where they differ from those of their supervisors, is of importance in identifying areas of disagreement which may impede research involvement by both ranks.

The previous section has shown that the relationship between different ranks, especially between members of the lower ranks, is likely to play an important role in responses to EBP at an operational level. What follows is a review of the literature specifically relating to studies of frontline officer receptivity to research, in particular the strengths and limitations of their methodologies. It concludes with a summary of the key points raised within this literature review, situating them in the context of the research questions this study seeks to address.

2.7. Receptivity to Research

Despite the rise of EBP, research indicates that there has been a mixed response to it generally within policing organisations. Academics, including Sherman, have identified that EBP has not been 'rapidly diffused' into policing (Lum, 2009, p.3) and Laycock points out that it has failed to make 'fundamental inroads into policing behaviour', despite its promises to professionalise the role of policing (2014, p.399).

Whilst EBP is largely recognised and accepted by police leaders to a degree, there is less known about receptivity to EBP at the rank-and-file level. The current literature demonstrates that there is continued reservation towards the use of research evidence in practice across all ranks. Despite the increasing volume of literature which highlights the strategies or tactics that could work in practice, less is known about how receptive practitioners are to the adopting these, and how willing they are to be involved in generating research evidence. This is important, given the significant number of officers now joining the profession through the PEQF entry routes, who are being called upon to create and use research evidence in their professional practice.

In areas outside policing, receptivity to research and evidence-based practice is well documented. A considerable amount of literature has been published on practitioner

receptivity to evidence-based practice more widely, using a range of empirical methods (see Gray et al., 2014; Kaper et al., 2015; Yoo et al., 2019), and much of this literature concerns receptivity to research in the field of medicine, which is unsurprising given the medical origins of evidence-based practice. Numerous studies have adopted Aarons' (2004) Evidence-Based Attitude Scale (EBPAS) as a basis for the measurement of practitioner attitudes towards evidence-based practice (Aarons, 2004). The EBPAS provides a reliable and valid measurement of attitudes towards the adoption of evidence-based practices across four dimensions: 1) the intuitive appeal of evidence-based practices; 2) the likelihood of adopting such practices if required to do so; 3) openness to new ways of working, and 4) perceived deviation away from usual practice with researched-based practices. However, the scale does not qualitatively explore the rationale behind the views. To date, the author has not found any replication of Aaron's EBPAS, or indeed measurement of police practitioners' attitudes towards evidence-based practice using attitudinal scales within policing studies.

Within the policing literature, there is a considerable amount of research that examines officer receptivity toward major EBP strategies or tactics, including Hot Spot Policing (Telep and Weisburd, 2012; Braga *et al.*, 2014) and Problem-Oriented Policing (Goldstein, 2003; Read and Tilley, 2000). Moreover, Grant and Rowe (2011) and Ballucci *et al.* (2017) have examined officer receptivity to inter-partner violence risk assessment tools as products of EBP research. More recently, there has been an increased focus on officer receptivity to body-worn video (BWV; Snyder *et al.*, 2019) and Restorative Justice (RJ; Stockdale, 2015; Huff *et al.*, 2018). However, whilst these studies consider receptiveness to specific policing strategies, using both quantitative and qualitative methods, they do not focus on a broader conceptualisation of officer receptivity to research.

2.7.1. Studies of senior officer receptivity

A smaller but growing body of literature is, however, concerned with officer receptivity to research and EBP more generally. These studies of senior officers' receptivity have acknowledged that police executives are largely open to using research within their organisation (Telep and Winegar, 2016; Practices and Kalyal, 2019). For example, Telep and Winegar (2016) found in their survey of 45 Oregon chiefs and sheriffs, that participants were generally receptive to the idea of EBP, but significant gaps in their research knowledge and understanding of how to use research in practice remained. Similarly, Koziarski and Kalyal

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¹⁸ See Rye *et al.*'s (2017) study of nurses in Norway, Aarons *et al.*'s (2010) study of mental health workers in the United States, Roaldsen and Halvarsson's (2019) study of physiotherapists in Sweden and Rye *et al.*'s (2017) study of mental health workers in Norway and the United States.

(2020) in their study, based on semi-structured interviews with 38 sworn and civilian Canadian police executives, found that participants believed middle management were the most resistant to EBP, citing their lack of exposure to research and administrative knowledge and an occupational culture resistance to EBP in practice.

Much of what is known from early studies of officer receptivity is US-based and has tended to focus on the views of senior officers, thereby revealing a gap in what is known about the views of staff in other ranks of policing towards research. Turning to studies conducted in the UK, Palmer's early study in the Greater Manchester Police area (2011) examined middle police managers' receptivity to research and experimentation. Using a web-based survey, Palmer surveyed chief inspectors and inspectors (n=153), using closed questions, and found that whilst participants were generally receptive to EBP and taking part in RCTs, they were more reliant on professional experience to shape their decision-making. Middle-ranking officers also saw a limited connection between research and operational practice, with over 60% believing that academic knowledge could only be occasionally transferred to police practices. Whilst this study presents quantitative evidence of officer receptivity towards research within England and Wales, it is limited to one organisation and middle-ranking officers only and thus does not provide enough evidence which helps to explain such levels of receptivity.

More recently, Hunter *et al.* (2019) have studied what they describe as the 'traction' of EBP within England and Wales, over three years, as part of a review of the What Works Centre for Crime Reduction (WWCCR). Their findings, based on interviews with 59 chief officers from 28 of the 43 forces, found a positive leaning towards evidence-informed practice, echoing the findings of other scholars. As part of the review, they also conducted an online survey of officers and staff across all ranks and forces, to establish if EBP was filtering down to the lower policing ranks (n=589) (Hunter *et al.*, 2015). This particular study focused on frontline officers' views of research relevance, visibility and accessibility within organisations but suffered significant research limitations, including low response rates, self-selection bias and completion by those already supportive of EBP. As such, the findings were not published in full. They did however find differences in views between senior and junior officers, the latter of whom were less convinced of the relevance of research in policy and police practice. A further limitation of Hunter *et al.*'s study was that it also included police staff participants, as is common in the work of other scholars (Lumsden, 2017; Telep, 2017; Blaskovits *et al.*, 2020). Like other scholars, their findings do not distinguish between officer and police staff officer

¹⁹ Their study focused on chief officers' use of research in their recent decision-making, the value they placed on research, and efforts to promote it within their force.

views, despite participants occupying significantly different roles and sub-cultures within the organisation. Studies of receptivity to EBP tend to include officers and police staff as participants, and in doing so fail to isolate the differences between officer and staff views of research and EBP.

Whilst these studies highlight that those at higher levels within policing organisations are generally receptive towards the use of research, they nevertheless present some key issues, notably reliance on operational experience over research, a lack of understanding of the role and capabilities of research, and a broader acknowledgement that whilst research may be of benefit, it is not easily implemented within policing. The studies presented thus far also highlight that much of what is known about officer receptivity to research is generally based on two types of study: those which focus on specific EBP tactics such as BWV, hotspot policing or RJ; and those which have investigated the views of senior officers (for example Telep and Winegar, 2016). This research, therefore, lends itself to moving beyond these two broader types of study to examine frontline officer receptivity to research specifically.

2.7.2. Studies of officer and staff receptivity

Returning to the US, Telep and Lum (2014) were one of the first research teams to explicitly examine frontline officers' receptivity to research (see also Rojek *et al.*, 2012) and in doing so, their study provides a detailed account of frontline officer receptivity to research, albeit it in a US context (see thereafter Telep and Winegar, 2016; Telep, 2017; Telep and Somers, 2019). Arguably a seminal study, their questionnaire survey methodology has since been replicated by others in Canada, also seeking to examine frontline officer receptivity to EBP (Blaskovits *et al.*, 2020). In their rationale for the US study, they argued that insufficient attention had been given to the views of officers as 'street-level bureaucrats, who ultimately are the implementers of evidence-based policy and other reforms' (2014, p.360). They further recognised a need to better understand practitioners' and frontline officers' views and receptivity towards empirical research as means of encouraging involvement and use of research in police practice (2014, p.2).

The original study examined frontline officers' knowledge of EBP and research, and their views towards research, science and analysts, innovation and 'outsiders'.²⁰ Conducted across three US police organisations, their questionnaire was self-administered (n=927). The

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²⁰ They also explored frontline officers' views towards crime analysts (as producers of research findings and processes).

questionnaire was completed by officers only in one organisation, and in the remaining two, due to a low number of officer respondents, civilian responses were also included. Their findings concluded that whilst EBP had significant potential to inform police practices, it had not been 'rapidly diffused into American policing' with 'little indication that most American police leaders and their agencies systematically or regularly use tactics that are evidence-based' (2014, p.2).

Unfortunately, like others, Telep and Lum's findings and analysis did not report on the differences between civilian and officer responses and instead focused on the variability seen across the three organisations, based on descriptive analyses alone. They did not explicitly identify the demographic characteristics of their sample, therefore, it is not possible to establish the impact of rank on the viewpoints that were presented. Furthermore, by including civilian respondents, this study does not focus solely on sworn officers' receptivity to empirical research, as indicated by the study's title. The inclusion of civilian respondents presents a potential assumption that the views of civilian staff are akin to those of officers, as it does the assumption that higher-ranking officers' views are similar to those of the rank-and-file. The authors also acknowledge one of the study's limitations that as an exploratory piece of work, it was not guided by any theoretical perspective.

Nevertheless, this study found that across all three organisations, respondents viewed operational experience as more useful in everyday decision-making than research, but that they also accepted that collaboration with researchers was important in helping their organisation to reduce crime. Furthermore, more than 95% of respondents indicated that they would be open to trying new initiatives, though they were more inclined to take part in less rigorous research approaches, shying away from involvement in RCTs. Notably, they concluded that EBP is unlikely to become a reality in the field without the support of frontline officers.

A subsequent follow-up study by Telep (2017) utilised data from the original study but removed the civilian responses from the original dataset and added a different police agency (n=992). In this exploratory study, officer receptivity was measured using multivariate analysis to assess predictors of receptivity to EBP and variability across the four agencies (Telep, 2017). This research assessed receptivity against particular characteristics of predominantly patrol officers, including rank and educational attainment.²¹ The findings revealed that officers who

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²¹ 20.8% of Telep's respondents were supervisors (though individual ranks are not defined), 71.0% held a patrol officer role (though this role is not defined), compared to 29.0% who held what Telep describes

were more receptive were those who were regularly exposed to research materials, more highly educated, less likely to work on patrol and more likely to supervise others. However, whilst this study adds empirical evidence to what is already known about frontline officer receptivity, by the very nature of its methodological approach, it does not help to explain what receptivity means beyond the term 'openness', nor can it provide a detailed explanation of the values and beliefs which underpin views towards research.

On a smaller scale to Telep's work, Lumsden (2017) in her study of receptivity to research and EBP and England and Wales, sought the views of officers and civilian staff relating to definitions of EBP, the context of these definitions, hierarchies of evidence and measures of success and 'what works'. This study used semi-structured interviews across three police forces and was based on a purposively selected sample of participants who held key roles in research utilisation or had experience working in an academic-practitioner collaboration (n=15). Participants held the ranks of sergeant, inspector and chief inspector with operational and managerial responsibilities. Like Telep, Lumsden also found that participants showed clear support for EBP (adding to a shared academic understanding of receptivity to research) and were enthusiastic about the benefits research may bring to policing. However, the study concentrated on participants' opinions towards research specifically, and less so on the rationale underpinning these opinions.

Similarly, the work of Fleming and Wingrove (2017) explored officers' and staff views towards EBP as a part of a pilot EBP training programme within England and Wales. Using a quantitative survey of police officers and staff in 2015 (n=90), pre-and post-involvement with the training course, participants from across four forces were asked to provide their perceptions of the programme and its materials, EBP in general and the extent to which they believed their organisation valued the role of EBP. Their findings revealed that whilst practitioners have complimentary views towards evidence-informing practices, qualitative survey comments suggested challenges to viability, including a lack of organisational clarity around EBP, its role, value and use, and resource issues. Whilst this study is UK-based and contributes to our understanding of officers' views towards EBP in general, the views of constables represented only 9%, compared with 70% above the rank of sergeant, and 21% of police staff. Participants also had prior working knowledge of EBP.

as a 'higher rank', and 66.6% of respondents had achieved the highest level of educational attainment at or above bachelor's level (Telep, 2017, p.986).

Most recently, Palmer *et al.* (2019) studied police employees' views and use of evidence-based practice in a large English force (n=625). All members of staff, whether sworn or unsworn were invited to take part in the online quantitative questionnaire. Though their detailed findings do differentiate between higher and lower-ranking officers and sworn and non-sworn employees, the data from this organisational benchmark survey do not provide any qualitative explanation to help explain the differences observed. The findings suggested that whilst the term EBP was widely recognised, less evident was its use in practice and also that constables favoured experience over academic evidence when compared to higher-ranking officers.

2.7.3. Studies of frontline officer receptivity

By far the most detailed examination of the views of officers towards EBP in England and Wales can be found in the work of Fleming and Rhodes (2018; see also Fleming, 2018; 2020). In this qualitative study, researchers carried out focus groups with officers from across all policing ranks (n=160) in 2014, as a precursor to the EBP training programme detailed in Fleming and Wingrove's (2017) study above. This study explored officers' views towards EBP, its value and use, the perceived challenges and what a suitable training package may look like. Given the qualitative method adopted, this study arguably presents a depth of understanding beyond that which can be obtained from quantitative methods alone. Fleming and Rhodes' findings identified four characteristics of the police tradition that shape responses to EBP, namely, the 'division between management and the rank and file; weariness of change; risk aversion, and lack of trust' (Fleming and Rhodes, 2018, p.11). From a methodological perspective, whilst the focus groups were rank specific, it is unclear how many participants were from the rank and file (constables and sergeants) and how many focus groups were untaken with these ranks specifically.

What would appear to be missing from the current literature is a greater understanding of the level of receptivity to EBP in UK policing organisations, based solely on the views of constables and sergeants. Whilst there is a small but growing body of evidence to indicate that frontline officers are receptive to research, there remain gaps in what we know about the reasons which underpin and shape these views (Cherney *et al.*, 2019). Absent from this body of knowledge is an examination of frontline constables' and sergeants' views, which would enhance our understanding of the underlying beliefs which influence their decision-making and the adoption of research. Furthermore, there is no evidence of an approach which adopts and combines both quantitative and qualitative methods to gain a greater understanding of

the phenomenon of receptivity, beyond that which can be obtained using either a quantitative or qualitative methodological approach.

The literature reviewed here, therefore, suggests that there is a timely and pertinent role for a mixed-methodological study which exclusively considers the views of frontline officers. More specifically, this type of study would aim to establish what role constables and sergeants believe research ought to and can play in their workplace, the value it holds for them in their role, and what challenges to the adoption of EBP they foresee, specifically for frontline policing. Through an exploration of officers' views of openness, value and role it is anticipated that a more detailed and nuanced understanding of officers' receptivity to research can be ascertained.

2.8. Conclusion

In this chapter, I have presented the main policy, operational and theoretical perspectives which underpin the analytical framework used to interpret my research findings. In summary, I began this narrative by presenting a brief history of evidence-based policy, from international and national perspectives, as a backdrop to governmental decision making and reform strategies in public services more widely. I then turned to introduce the concept of evidence-based policing (EBP), as the embodiment of evidence-based policy within policing, outlining its links to current notions of police reform, professionalisation and education in the UK, and the central debates surrounding it. Following this, I described how the current challenges to the implementation and adoption of EBP at organisational and individual levels can be understood as an interplay between EBP and police cultures, rank and officer agency. In narrowing the focus to consider practitioner receptivity to research, I concluded with a critique of the available empirical studies, which have explored officer receptivity in UK policing to date.

A core theme of this chapter has been the role of the frontline practitioner in creating and using evidence, as deemed necessary for evidence-based practice and as espoused by the College of Policing. Yet, despite the call for practitioners to become more heavily involved in creating the profession's knowledge base, supported through the new educational standards for policing, we know little of practitioners' views towards the value and role they believe this has for them in their practice. It is argued that understanding frontline practitioners' views towards the role and practice relevancy of research and evidence is key to facilitating an evidence-based approach to what works in embedding evidence-based practice in frontline policing.

At the centre of this research are three main theoretical perspectives. The first contemplates the nature of evidence and what can and ought to be recognised as evidence in the context of EBP. Specifically, this relates to contemporary perspectives on the value and limitations of 1) social scientific research and 2) experiential knowledge as evidence, in the context of officer decision-making and practice. The second focuses on the concept of implementation theory. This recognises both top-down and bottom-up theoretical approaches to organisational change, where a lack of empirical evidence hinders the evidence-based implementation of EBP processes in policing. The third centres upon the classical and integral notion of police cultures – organisational, occupational and subcultural – as a means of understanding factors which influence and shape officer behaviour towards, and receptivity to, evidence-based practice.

Hitherto, this review of the existing body of literature has revealed three main gaps in knowledge that this study seeks to address. Firstly, as described above, whilst there is now emerging knowledge of frontline officers' receptivity to research, from both US and UK perspectives, these have been situated in the context of a wider study or programme, where the samples have included officers of different ranks, alongside other non-sworn staff. Whilst these studies do present evidence of frontline officers' views toward EBP, it is argued here that there is a need for a study which focuses solely on the views of sworn constables and sergeants to provide a more detailed and nuanced understanding of frontline receptivity. Moreover, by making a distinction between the two ranks, it is anticipated that 'different perspectives on essentially the same thing, where each perspective is grounded in the situation of the people who hold it' will be observable in richer detail (Reuss-lanni, 1983, p.139).

Secondly, whilst there is emerging evidence of the barriers to research, as articulated by the frontline officers themselves, this is limited to a small number of studies (Fleming and Wingrove, 2017; Fleming and Rhodes, 2018; Fleming, 2020). Therefore, there is a timely and important need for empirical research which enriches the understanding of the challenges to EBP in frontline practice, from the lived experiences and voices of practitioners themselves. This is of particular significance if the implementation of evidence-based practice in policing is also to be 'evidence-based'. Finally, the methodological approaches adopted by existing studies have, thus far, largely approached the topic using either qualitative or quantitative methods (for example, Lumsden, 2017; Fleming and Rhodes, 2018 and Palmer *et al.*, 2019). It is therefore argued, that in combining research paradigms, through a mixed-methodological approach, a better, richer understanding, alongside more complete evidence, of the receptivity and challenges to research at the frontline policing of UK policing can be developed.

Building upon the detailed work of Fleming and Wingrove (2017) and Fleming and Rhodes (2018), this study will adopt a mixed-methodological approach which will focus exclusively on the views of frontline constables and sergeants, and the prevalence thereof receptivity to EBP, in UK policing. The next chapter describes the procedures and methods used in this study, to address the four central research questions.

Chapter Three: Research Methodology

3.1. Introduction

This chapter presents the mixed-methodological research strategy adopted in this study and the two methods used to gather data to address my four central research questions (RQ_1 to RQ_4) and covers four key elements. The first discusses the study's overarching aims, the researcher's philosophical stance, the rationale for the methodological approach taken, and details of how research access was secured. The second part describes the processes undertaken in the quantitative strand in which a survey questionnaire was used; and in the third, I explore the processes undertaken in the qualitative strand which adopted Q-methodology. Finally, I conclude this chapter by offering reflections on my positionality and its influence within this study.

Given the challenges of conducting a mixed-method approach, a significant proportion of this chapter is dedicated to discussing each research method's design and delivery phases.

3.2. Research Aim

As presented at the end of the previous chapter, my research aim has been to enhance the understanding of police constables' and sergeants' receptivity to research, within frontline policing in England. This central aim is underpinned by the four research questions identified on pg. 21. In seeking to answer these, I have focused on exploring their receptivity to research in the workplace from the perspective of frontline officers themselves. These questions, and the underlying themes of the quantitative strand of this study, emerged deductively from my review of the current literature. The themes from the qualitative strand (Q-methodology) emerged inductively from the participant's views towards research in frontline policing. This study, therefore, includes both deductive and inductive elements.

3.3. Pragmatism as a Research Paradigm

Defined by Creswell as 'a basic set of beliefs that guide action', a 'worldview' or paradigm is a 'general orientation about the world and the nature of research that a researcher holds' (2009,

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p.6). Shaped by the researcher's previous research experiences and discipline Creswell argues that the researcher's worldview and beliefs are likely to lead the individual toward a quantitative, qualitative or mixed-methods approach (2009, p.6). In this case, my worldview, my personal and professional experiences (as a serving officer), and the research subject itself, have led me to adopt a mixed-methodological approach. In the following section, I introduce pragmatism as the research paradigm which has shaped my research design.

According to Florczak, pragmatist researchers are those 'who believe that the goal of any inquiry should be the good of humankind' and that 'dogmatic paradigms impede progress toward the resolution of problems' (2014, p.281). The paradigm wars, or as Alasuutari *et al.* (2012) describe them, 'intra-paradigmatic differences', are viewed as two opposing research paradigms, one which supports qualitative research, and the other quantitative research. I do not support the purist views of the paradigms as described by Florczak (2014, p.282). Instead, like Florczak, I believe that 'all types of knowledge should be brought to bear to understand a phenomenon' (2014, p.281). In this case, the phenomenon under investigation is frontline officer receptivity to research and the challenges this may present in contemporary frontline policing. I have, therefore, focused on the appropriateness of the research methods for answering my research questions, thus resulting in the adoption of both quantitative and qualitative methods.

3.4. A Mixed-Method Research Design

Mixed-methodological research is a research strategy which combines both quantitative and qualitative data (Lewis-Beck *et al.*, 2004; Bryman, 2012). It is, however, more than merely obtaining and analysing both types of data within the same study. Rather, it combines both types of data, so that the composite strength of the study is greater than if qualitative or quantitative research was used alone (Teddlie and Tashakkori, 2009; Creswell *et al.*, 2018). Advocates of mixed-methods argue that in combining methods, inferences, through convergence or lack thereof, may be drawn which 'strengthen claims to knowledge' (Schulenberg, 2007, p.104). Criticisms of mixed-method approaches highlight the practical challenges associated with the requirement for researcher skills in both quantitative and qualitative methods and the time and resources necessary to deal with extensive data collection. Another critique centres on the liberal use of the 'mixed methods label', as applied, for example, to 'studies which only superficially mix methods' (Cameron, 2009, p.145).

3.4.1. Rationale for adopting a mixed-methods research design

The rationale for adopting a mixed-methods design is guided by pragmatism, which recognises a 'false dichotomy between the qualitative and quantitative research paradigms' and advocates for the efficient use of both approaches to address research problems (Cameron, 2009, p.140). Underpinned by my epistemological and ontological perspective, the decision to use a mixed-methods design was partly informed by a desire to appeal to the quantitative nature of contemporary policing. Driven by ideals of accountability, efficiency and effectiveness, modern-day policing is shaped by quantitative data at all levels – from within and outside the organisation (Barton and Barton, 2011; de Maillard and Savage, 2022). Therefore, in light of my research aim to explore officer receptivity to research, it was apparent that a design which combined both quantitative and qualitative data would arguably reach a wider audience within policing.²²

Notwithstanding this desire to appeal to the quantitative nature of policing, another research motivation was to give a voice to frontline practitioners (Fleming and Wingrove, 2017; Hesketh and Williams, 2017; Fleming, 2020). This stems from my personal experiences as an officer, where, in the latter stages of my service, I felt that my voice and those of my peers often went unheard within the organisation (a phenomenon similarly observed in the work of Charman and Bennett, 2021). Therefore, my mixed-methods approach has been designed to obtain 'different but complementary data on the same topic' to best understand the research issue at hand (Morse, 1991, p.122).

3.4.2. Adopting a convergent parallel mixed-method research design

There are numerous ways in which to carry out a mixed-method research design (Bergman, 2008; Teddlie and Tashakkori, 2009; Creswell and Plano Clark, 2018), and I ultimately chose to adopt a convergent parallel design, where quantitative and qualitative data are collected independently, during a similar timeframe, before being merged at the interpretation and reporting stages (Fetters *et al.*, 2013). In the two strands of this study, quantitative data was

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²² At the time of selecting the methodological approach, I viewed the need to show the prevalence of views towards EBP through quantitative data, in particular, as an important factor in rendering my research and its findings appealing to a police audience. Whilst this was not my primary reason for selecting a mixed-methodology, reflecting upon this now, I recognise that this desire to appeal to a police audience came from my position as an 'outsider-insider' (Brown, 1996, p.181). In this regard, my positionality influenced the methodological approach I adopted.

gathered using an online questionnaire distributed to constables and sergeants, and qualitative data was gathered from officers of the same ranks using Q-methodology.

Figures 1 and 2 below provide a visual representation of the convergent parallel research design adopted in this study.

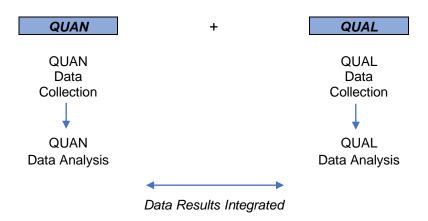


Figure 1. Convergent Parallel Design Strategy.

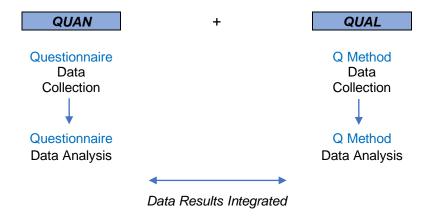


Figure 2. Convergent Parallel Design Strategy used in this study.

Note: Adapted from Creswell, 2009, p.210.

In this study, quantitative and qualitative data were gathered independently using a two-phased approach spanning nine months. The quantitative strand was conducted in April 2017, followed by the qualitative strand conducted between June and December 2017. Although arguably more time consuming, conducting each data collection phase consecutively was easier to manage as a sole researcher. Collecting the data in this way did not impact the individual data gathering processes, since, in a convergent parallel design, data is generated in independent phases.

3.5. Research Sites, Access and Inclusion Criteria

In undertaking social scientific research, the choice of research strategy should also consider the associated practical issues in securing the data, and the participants necessary to answer the research question (Denscombe, 2010). Obtaining research access to research sites and participants is therefore a significant practical aspect in this regard. Given that this study adopted a mixed-methodological approach, with two strands of data collection, across four force research sites, a considerable amount of time and effort was spent securing research permission and access to each force and the participants. This process took over seven months (between February and September 2016) with further ongoing communication to arrange and facilitate the data collection phases over 10 months (between March 2017 and December 2017). The following section briefly explains the processes undertaken in gaining initial research permission and access to each of the four research sites. Sections 3.6.3 and 3.7.6, later in this chapter, present further details of some of the specific challenges encountered when navigating secondary gatekeepers tasked with facilitating the data collection phases in each force.

3.5.1. Research sites and access

Having served as an officer within two forces, one in the South of England and one in the North East of England, I was able to use existing contacts within these forces to ask for permission to use each as a research site. Both were of a similar size in terms of geographical area and officer strength. Throughout this study, these forces are referred to as Force 1 and Force 2. Research access to Force 1 was granted first in March 2016, after meeting the EBP lead, a chief superintendent, at a national EBP policing conference in February 2016. An email request detailing the study's aims and requirements was sufficient in securing research permission and access. Access to Force 2 was granted formally in July 2016 by the Chief Constable, after I contacted a member of the force's executive team in March 2016 to seek permission.

I also wished to include two larger forces within the study, and I was able to, by making contact with both the lead for the Society for Evidence-Based Policing and the lead for EBP at the CoP, obtain contact details for the EBP leads in two larger forces (one in the Midlands and the other in the North East). These forces are referred to as Force 3 and Force 4 respectively throughout this thesis. In these forces, the gatekeepers were the ranks of chief inspector and inspector, and both were similarly sized in terms of geographical area and officer strength. Access to Force 3 was granted in September 2016, by the gatekeeper, following the

completion of a formal research application, including my ethical approval document which I submitted to the force's central research department. Access to Force 4 was also granted in September 2016 by the force's gatekeeper after providing a summary research report and details of my requirements. The following section presents the research inclusion criteria adopted within this study.

3.5.2. Research inclusion criteria

A research inclusion criterion of *Frontline, uniformed response and neighbourhood PCs and sergeants* was adopted as the descriptive label for research participants. Table 1 below presents the full participant inclusion and exclusion criteria applied to both the quantitative and qualitative strands of the study.

Table 1: Participant inclusion criteria for quantitative and qualitative strands of study

Criterion	Inclusion	Exclusion
Status	Sworn police officer	Non-sworn police officer
Rank	At substantive rank of constable or sergeant	Rank of inspector and above
Uniform	Uniformed officer	Non-uniformed officer
Role	Everyday role within the following: - Emergency response team - Community or neighbourhood policing team	Everyday role as any of the following: - CID officer - Investigative officer - Prisoner handling officer - Armed response officer - Traffic officer (incl. collision investigation) - Specialist firearms officer - Mounted officer - Operational support unit (public order) - Firearms licencing officer - Alcohol licensing officer - Contingency planning officer - Coroner's officer - Training officer - Crime management officer - Telephone investigation officer - Communications officer

3.6. **Quantitative Strand – Online Questionnaire**

In the following section, I detail the approach taken in the quantitative strand of this study. Specifically, I explain the rationale for adopting an online questionnaire and the questionnaire design, pilot, participant recruitment and administration phases of this strand. This section concludes by presenting the response rates for the study, alongside a brief discussion of the challenges encountered concerning this.

The use of survey instruments in social scientific studies is a standard method of obtaining both quantitative and qualitative data (Bryman, 2008; Creswell, 2009). Aldridge and Levine (2001) describe a social survey as a type of research strategy used to gather the same information from all participants and can include questionnaires, face to face interviews, telephone interviews and observations (De Vaus, 2002). Arguably, each of these methods would have met the requirements of the quantitative strand of my design. In considering the use of face to face interviews, often used in police research, I decided that the individualised and time-consuming nature of these would prevent me from accessing data from a larger number of officers. I, therefore, decided to use a self-administered questionnaire, distributed and managed online. This, I concluded, would facilitate access to officers from several forces, thus providing a larger pool of participants and amount of data.

Surveys via online questionnaires continue to gather momentum as a data collection method within social science research (Bryman, 2008; Couper, 2008). Research undertaken in policing also reflects this trend, with examples of research using online questionnaires appearing frequently within the literature. Examples of questionnaires which focus on operational police officers as participants include works by Lum *et al.* (2012), Crocker (2013), Myhill and Bradford (2013), Rotenberg *et al.* (2015), Westmarland (2016) and Jones and Williams (2015). These surveys examine a range of subjects including officers' receptivity to EBP more broadly, restorative justice, organisational justice, officers' trust beliefs, officers' interpretations of and responses to policy directives, and LGB officers' experiences of workplace discrimination, and adopt a variety of distribution and completion methods.

Online survey tools, including the Bristol Online Survey (now known as Online Survey [Jisc, 2022]) and SurveyMonkey, have increased accessibility and functionality for both the researcher and the participant. Having participated in several paper-based and online surveys within policing, I preferred personally to complete questionnaires online given the ease of access. Therefore, I decided that my survey would be most effectively administered using an online tool given the ease of access for participants, and the associated cost and time

efficiencies. It also offered compatibility between data files and statistical analytical software packages (Bryman, 2008; Creswell, 2009; Gray, 2014).

From a participant's perspective, the benefits of using an online survey tool include ease of access, speed of completion and confidentiality. As time-constrained emergency workers, I understood that my participants would need to be able to conveniently begin and return to the questionnaire if necessary, accessing it from a range of internet-enabled devices. Importantly, I wanted to convey that it would take minimal effort to complete via a professional appearance and question format, thereby minimising non-responses to the questionnaire invite. Given these benefits, I used the Bristol Online Survey (BOS) tool (Jisc, 2022).

This BOS tool offered academic credibility, and confidentiality, and importantly, presented the questionnaire as independent from the participants' organisations. It also had the capability of sending out a personalised questionnaire link to each email address, which prevents multiple completions of the questionnaire. Furthermore, the email invite containing this personalised link would come from my Northumbria University email address. Significantly, providing the tool with a list of all the email addresses for potential participants within each force allowed for sending reminders to those yet to complete the survey. Given these benefits, I was keen to use these features, to increase response rates and highlight researcher independence from the host organisation.

However, there are some disadvantages to using an online questionnaire, including the inability to ask additional questions or probe answers further. The risk of low response rates can also be an issue (Cook *et al.*, 2000; De Vaus, 2002; Nulty, 2008). This is discussed further within Section 3.6.5.

3.6.1. Designing the questionnaire

My questionnaire was designed to investigate participants' views using the following variables; 'personal characteristics, behaviour and opinions' and 'beliefs and attitudes' (Aldridge and Levine, 2010, p.5). This was because I wanted to gather demographic data, and more importantly, a range of officers' opinions and attitudes towards research.

In constructing the questionnaire, I found writing the closed demographic and behaviour questions relatively straightforward (De Vaus, 2002). However, writing the closed belief and attitudinal questions was more challenging, in terms of wording and focus, given the necessity to repeatedly refer to the existing literature. After considering the most appropriate style of

question to address the opinion, attitude and belief elements, I decided to use statements which could be ordered using a Likert scale. Likert scales are commonly used to investigate attitudes and are designed to measure the intensity of feelings shown towards attitudinal statements, related to a given subject (Ho, 2017; Oppenheim, 2008). These attitudes are usually measured from strongly agree to strongly disagree on a 5-point scale, with a middle position of neither agree nor disagree (De Vaus, 2002; Sturgis *et al.*, 2014).

Furthermore, using a neutral middle point has also been shown to increase the validity and reliability of response scales (Lietz, 2010). Allowing participants to respond to attitudinal statements using a scale may also prevent participants from tiring and exiting the questionnaire prematurely (Porter *et al.*, 2004). From an analytical perspective, I was drawn to using scaled measures because they are less time consuming to analyse than open-ended questions, yet more informative than closed questions (Creswell, 2009).

To structure writing the attitudinal statements I adopted ten themes derived from police culture theory and Lipsky's Theory of SLB (1980) (L_1 to L_5 and PC₁ to PC₅) shown below in Figure 3. In doing so, this element of my study can be viewed as deductive in its approach.

Lipsky's Theory of SLB

Conflict with individuals' beliefs

L₂ Use of discretion

 L_1

L₃ Conflict with supervisor

L₄ Self & role perception

L₅ Working conditions (Team)

Police Culture Theory

PC₁ Cynicism

PC₂ Use of discretion

PC₃ Suspicion

PC₄ Power & authority (Supervisor)

PC₅ Indoctrination

Figure 3. Overview of analytical themes incorporated within the questionnaire.

Using these themes, I began the process of writing the attitudinal statements. This involved considering each theme individually, and then 'brainstorming' to generate statements which reflected each theme, based on the existing literature. At the end of this process, I had generated an initial pool of 96 attitudinal statements, balanced between positive and negative statements, which I anticipated would be 'meaningful and interesting, almost exciting' for my participants to scale (Oppenheim, 2008, p.179). To ensure I had enough statements, I labelled

each according to the theme and research question to which it pertained. This process was beneficial since it enabled me to view the overall survey structure more broadly and allowed for the addition of statements to those themes initially under-represented.

This iterative process was focused on ensuring that I had sufficient statements to effectively represent what the topic might mean to participants, thereby contributing to the validity of the questionnaire (Morgan, 2014). Statements were more heavily weighted to themes L_2 and PC_2 : officers' use of discretion within the context of RBTs since, as a theme, this related to both police culture theory and Lipsky's theory of SLB. Each statement was considered individually for duplicity, use of abbreviations, multiple statements, double negatives, clarity and brevity (Bryman, 2008; Lietz, 2010). Any duplicated content statements were removed, as were those not explicitly related to the research questions.

It should be noted that when administering the questionnaire, I did not provide participants with a definition of the terms 'evidence-based practice' or 'research', since I did not want to deter them from completing the questionnaire if they did not understand the definitions as presented. Instead, I referred throughout the questionnaire to examples of research-based tactics (RBTs) in the question wording and used the phrase 'academic research' to simply describe research carried out by academics.

3.6.2. Conducting a pilot of the questionnaire

Aimed at strengthening the validity and reliability of the survey measures, I conducted a pilot with a small, convenience sample of six officers from a local force (Morgan, 2014). These officers were former colleagues at the ranks of constable and sergeant. Practitioner involvement at this stage was beneficial in verifying question appropriateness and useful in identifying poorly worded or ambiguous statements and aspects of the topic they felt had been omitted (Malmqvist *et al.*, 2019). Pre-testing the questionnaire also helped to assess the overall structure of the questionnaire and how long should be afforded for the survey completion (subsequently identified as an average of 10 minutes). Feedback from the pilot resulted in the removal of several duplicate content statements, the re-wording of ambiguous statements, and the removal of others that the officers felt were unnecessary. The primary aim of conducting the pilot was to increase research quality by addressing weaknesses before implementing the questionnaire in the field.

Having finalised the list of attitudinal statements, I entered them onto the BOS, alongside the demographic and behaviour questions, and completed the survey building process by adding

headings to assist with analysis and to guide the participant through the survey. The final survey instrument can be found in Appendix One. It comprises demographic and behaviour questions in the first part, followed by opinion, belief and attitudinal statements. Although relating to the ten themes previously described, the attitudinal statements were presented in the questionnaire in a random order to avoid illuminating the purpose of that particular part of the inquiry to the participant (Lietz, 2010). I also included participant information and consent sections.

3.6.3. Questionnaire research access and recruitment

Whilst general permission from each force for the research has been discussed earlier in Section 3.5, it is pertinent at this stage to acknowledge the challenges experienced in renegotiating access to carry out the questionnaire, given the period that had elapsed since securing initial permission and access (between six and 12 months). Having designed, piloted and constructed the questionnaire, the next stage of the process was to obtain from each of the four force secondary gatekeepers a list of email addresses of those officers who fitted the research inclusion criteria.

Secondary gatekeepers (referred to as such given that they were the staff who granted physical access to the participants in each force) from Forces 1 and 3 (the two smaller forces in terms of officer numbers) provided, with relative ease, an Excel spreadsheet which listed the email addresses, ranks and roles for officers within their force, which met the inclusion criteria. Both gatekeepers held the rank of chief superintendent. Working with these lists, I was able to remove any officers whose role (as described on the list) did not fit the research inclusion criteria, for example, licensing officers, who despite being classed as neighbourhood officers by one force, did not meet my inclusion criteria per se.

Unlike the secondary gatekeepers from Forces 1 and 3, the Force 2 and 4 gatekeepers did not wish to, or could not secure permission to, provide me with a complete list of officer email addresses matching the inclusion criteria. Instead, they offered to send a generic questionnaire link via email to the relevant officers on my behalf. The disadvantages of this internal distribution method meant that the survey invite came from a named individual with a force email address, thereby lessening the appearance of research independence from the host force. Furthermore, this distribution method meant that I could not send reminders to participants who had not initially completed the survey, nor could I guarantee that emails were sent to all officers within the population, given that the gatekeepers controlled the distribution. The gatekeepers for the two larger forces were members of police staff.

Having described how access to participants for this strand of the study was secured, the following section explains how the questionnaire was distributed in each force.

3.6.4. Questionnaire administration

The questionnaire invite was distributed purposively and electronically to the population of frontline officers in each force, meeting the research inclusion criteria, during April 2017. However, I recognise the limitations in that it is practically impossible to survey a whole population due to distribution issues, and my study is no different in this regard (Bryman, 2012).

The survey remained open to responses for a month. To improve response rates, I sent two reminders (timed at seven days and 14 days after the survey launch) via the BOS tool to participants within Forces 1 and 3. Similarly, I asked Forces 2 and 4 gatekeepers to send an email reminder containing the generic survey link to all officers again seven days and 14 days after the survey launch. Sending reminders marginally increased the number of completed questionnaires for inclusion in the study (Thompson and Surface, 2007; Bryman, 2008; Nulty, 2008).

Table 2 below provides details of the final response rates for each of the four forces, where n equals the number of respondents from the force:

Table 2: Summary of response rates by force

	n	Frontline Total	Sample %
Force 1	26	298	8.7
Force 2	107	537	19.9
Force 3	79	2600	3.0
Force 4	123	1750	7.0
Total	335	5185	6.4

A total of 335 officers from the four English forces responded to the questionnaire. Given the low response rate, it was not statistically possible to make generalisations about the population of each force (Cook *et al.*, 2000; Nulty, 2008). Nevertheless, the questionnaire data

represented the views of a significant number of frontline officers in England in 2017. Of the four forces, two (1 and 4) were relatively equally represented (see Table 2). Force 2, the force I had previously worked within, provided the highest percentage of respondents (19.9%). Although this cannot be confirmed, the higher response rate may have been influenced by my being known to some of the respondents, thus encouraging them to complete the questionnaire.²³ With specific regard to police survey responses, Nix *et al.* (2019) note that a low response rate to a survey is not a reason to dismiss a study's findings (2019, p.544). Nevertheless, given the low response rate in three of four research forces, it is pertinent to acknowledge survey response rates.

3.6.5. Response rates and representation

Response rates are affected by both active and passive non-responses and are often the headline figure by which the success of a survey is initially measured. Passive non-responses occur when a participant does not wilfully choose to participate (De Vaus, 2002) and active non-responses occur when respondents make a conscious decision not to complete the survey (Bryman, 2012). Whilst I cannot know how many non-responses to my questionnaire were passive or active forms of non-response, Thompson and Surface (2007) suggest that the views of active non-responders are unlikely to differ hugely from those completing a webbased survey, within an organisational setting. Similarly, specifically regarding police use of surveys, Nix *et al.* (2019) found that low response rates are only weakly attributable to non-response bias. What is also unclear, is whether the two distribution methods influenced response rates in any way.

Whilst response rates can be affected by passive and active non-responses, the literature is clear that survey representativeness is of greater importance (Cook *et al.*, 2000; Thompson and Surface, 2007; Nulty, 2008). Put simply, a survey may achieve a high response rate, yet the respondents taking part may not fairly represent the views of the sample being surveyed (De Vaus, 2002). This difference between survey response rate and representativeness is an important distinction to make. In the case of my survey, it is difficult to know whether those officers who responded fairly represented the views of the whole sample. Table 4, found in

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²³ Subsequent analysis of the questionnaire data revealed no statistically significant differences in responses based on force.

²⁴ Reasons for passive non-responses can include leave, full inboxes, incorrect email addresses or missing the survey invite altogether. An active non-response decision may be based on a dislike of completing surveys, completing surveys online or using technology, or general 'survey fatigue' (Porter *et al.*, 2004; Lietz, 2010).

Section 4.2.1 of Chapter Four in proximity to the survey results, presents response data which suggests that at least in terms of demographic characteristics, there was a broad representation across the sample.

3.6.6. Questionnaire data analysis

Following the closure of the questionnaire, the data was transferred from the BOS tool into SPSS to form a dataset combining data from all of the four forces (Pallant, 2013). This process was relatively straightforward and required only minor administration in the form of adding labels to the data (Brace *et al.*, 2012). To begin my exploration of the data, I used univariate analysis and descriptive statistics combined with tables and graphs. This was to provide a broad overview, in which the similarities and differences in responses, based on participant demographics, could emerge from the dataset. Further information relating to the quantitative data analysis strategy is presented in Chapter Four (Section 4.2).

3.6.7. Ethical considerations

3.6.7.1. Informed consent

The role of informed consent within research is twofold. Firstly, it ensures there is an agreement between the researcher and participant, which informs the participant of the risk of harm (psychological or physical) before taking part in the study. Secondly, it acknowledges that the participant's rights will be protected throughout the research, including the right to anonymity (Creswell, 2009).

To secure participation and to address the requirements of informed consent for the questionnaire, I wrote a short email introduction outlining my role, a summary of my study in the style of 'frequently asked questions' and a link to the questionnaire hosted by the BOS tool. This link was personalised for those officers whose email addresses I had been given, and a generic link for the officers I did not have email addresses for (see Appendix Two). This introduction was intentionally friendly, succinct and informative: to encourage participation, it explained that the data provided would be invaluable to my research (Nulty, 2008). I also explained I was a former officer, carrying out research independent of their organisation, to allay concerns that their data may be shared with their employer. Furthermore, I also specified the study's sponsorship and used the Northumbria University logo at the top of my documents to secure what Creswell describes as 'trust and credibility' in the questionnaire (2009, p.89).

Officers who linked to the questionnaire were then directed to the BOS tool and the first page with additional in-depth participant information. The participants were also presented with a consent statement explaining that proceeding beyond the first page of the questionnaire indicated they had consented to participate and understood their rights to withdraw from the study without prejudice (see Appendix Three). The risk of harm was not addressed in the consent information given the non-personal, non-emotive nature of the topic under research.²⁵ Participants were advised that the questions they would be asked would be related to their everyday working practices.

3.6.7.2. Confidentiality and anonymity

Confidentiality was maintained throughout this research, including during quantitative data collection, analysis and writing up. All participant data was anonymised given the use of the online survey tool, and the conversion of the data to numerical counts within the statistical analytical tool SPSS. Therefore, there was no requirement to use pseudonyms at an individual level. At force level, each of the four forces was given a number between one and four to replace their organisational name to maintain anonymity.

Having presented the processes undertaken in the quantitative strand of this study, the following section explores the processes undertaken in the qualitative strand.

3.7. Qualitative Strand – Q-methodology

In the following section, I introduce Q-methodology (QM) as the method chosen for the qualitative strand of my research design. Firstly, I provide a rationale for using QM, followed by an explanation of its key features and the underlying theory upon which it is based. Secondly, I discuss how I designed the QM instrument, detailing its use in the field, analysis of the data, and finally, how I adapted the method to use as a cognitive tool. I conclude this section by presenting the ethical considerations relating to this strand and introduce the analytical strategy adopted.

²⁵ At the time of writing the consent information text in 2017, I viewed the risk of harm to my questionnaire participants as negligible, given what I perceived to be the 'non emotive nature of the topic'. Reflecting back on this decision, I recognise that my assessment of 'harm' at the time was based on a police assessment of harm and not that of a researcher. Clearly there was the potential for psychological harm to be caused to participants. I would identify this risk if undertaking the study again.

3.7.1. Rationale for choosing Q-methodology

Early in the design stage, I anticipated that the qualitative strand of my design would adopt a focus group method to explore officers' opinions, attitudes, and beliefs towards research in their respective roles. The focus groups I envisaged would follow the questionnaire in a sequential explanatory or exploratory design (Creswell, 2009).

As a group research technique, focus groups are widely used within social research and aim to provide a relaxed environment in which participants are encouraged to discuss, question, and respond to one another to generate data (Bryman, 2008). Kitzinger posits that this method works well in examining 'not only what people think but how they think and why they think that way' (1995, p.299). Unlike one to one interviews, focus groups are designed to explicitly make use of the interactions between participants within the group; they explore individuals shared knowledge and experiences of a particular subject (Kitzinger, 1995). However, whilst focus groups would have met the requirements of my research aim, I remained unconvinced that their use would allow me to fully explore the attitudes and beliefs of the officers involved. These doubts centred around concerns that officers might not wish to provide genuine opinions within a group setting (Kitzinger, 1995), with the potential challenge that group dynamics, even in a group of similarly ranked officers, would influence the reported attitudes of individuals (Liamputtong, 2011; Laenen, 2015). Despite being a commonly used method within social scientific research, their use within policing research appears to be less commonplace (Stockdale, 2015). I also considered using semi-structured and unstructured interviews to gather qualitative data. As noted within the literature review, interviews have already been used within studies examining senior officers' receptivity to research. However, I discounted this method because I wanted to gain a broad number of frontline officers' views across four forces, but did not want extensive, personalised individual accounts in this context. The disadvantages of not being part of a research team, coupled with time constraints in data collection, further influenced my decision not to use interviews for this study (Hammond and Wellington, 2020, p.107).

Whilst exploring alternative methods, I discovered Q-methodology (QM), a method that 'combines qualitative and quantitative methods to investigate the subjective views of those directly involved in a particular topic' (Herrington and Coogan, 2011. Intrigued by the method, I examined the QM literature further to establish if it was suitable for obtaining sufficient qualitative data to answer my research questions. The more I understood the method, the more I realised its appropriateness for addressing my research aim and its potential for presenting a creative or 'interesting' method to engage participants (Ramirez *et al.*, 2015).

Furthermore, I felt that QM would give each participant something active *to do* within the session (thereby appealing to officers' sense of action; Reiner, 2012), allowing me to capture individual data that was not influenced by other participants (thus overcoming the disadvantages associated with focus groups outlined above) which could then be combined to provide distinctive viewpoints held by the group.

A review of the existing literature relating to the use of QM within police research at the time revealed that it had not been used extensively, though it had been used in other social scientific fields (see Section 3.7.2). Therefore, I felt confident that as a potential new method within policing research, this would be an innovative and appealing way to engage my participants as fully as possible (Ramirez *et al.*, 2015). However, I did not choose QM purely for its innovative properties: as a method, it more than adequately meets the requirements of my research design.

Having adopted QM to gather qualitative data, I realised that the QM data I would obtain would not suit a sequential explanatory or exploratory design. Therefore, after careful consideration, my research strategy developed into a convergent parallel design to allow for merging both types of data after two independent phases of data collection.

Having presented my rationale for adopting QM, the following section introduces QM as a method.

3.7.2. Background to Q-methodology

Q-methodology (QM) is defined as a foundation for the systematic study of human subjectivity, where subjectivity is comprised of a person's opinions, beliefs and attitudes (Brown, 1993; McKeown and Thomas, 2013). The method itself will be described in the sections which follow, however before this, it is useful at this stage to provide a summary of its history, and its use within social scientific research and policing studies, alongside a discussion of its strengths and weaknesses. Whilst the QM terms referred to within this section are explained throughout the text, they are also presented in the glossary to aid understanding.

Initially conceptualised in 1935 by William Stephenson, a psychology and physics scholar, Stephenson developed the idea that human subjectivity could be scientifically measured (Brown, 1993). In essence, Stephenson's QM is an adaption of Charles Spearman's factor analysis in which patterns of association between a series of measured variables can be revealed (Watts and Stenner, 2012). QM is used to analyse the subjective viewpoints of

individuals, combining the strengths of both quantitative and qualitative methods, where the data is collected qualitatively and analysed statistically (Bashatah, 2016). For this reason, some view QM as a mixed-methods approach, which diminishes researcher bias (Sneegas, 2020). Others argue that it is 'typically a qualitative and a very *critical* method' (Watts and Stenner, 2005, p.70). Proponents of QM highlight that the strengths of the method lie in its combination of 'interrelated components: technique (Q-sorting), analytic methods (correlation, factor analysis, and computing factor scores), and methodology (a comprehensive logic of inquiry drawing on behaviourism, indeterminacy, quantum theory, and abductory logic)' (McKeown and Thomas, 2013, p.69). Furthermore, QM's ability to 'explore (and to make sense of) highly complex and socially contested concepts and subject matters', often of a sensitive nature, from the perspective of the participants, make it attractive to researchers concerned with such issues (Watts and Stenner, 2005, p.70). Critiques of QM largely stem from a disagreement between scholars aligned to the mixed-methods debate, where some would argue that QM incorporates both quantitative and qualitative elements, and furthermore, the means by which validity is managed within a QM study (see Brown, 1993).

QM originated within the discipline of psychology, following its development by Stephenson. It has subsequently been adopted across various social science disciplines including nursing, dentistry, education, sociology, human geography and public health. Within these disciplines, it has been used to explore a wide range of international and national issues, from strategies to promote student engagement (Judge et al., 2018), to sustainability issues in olive production (lofrida et al., 2018) to care priorities in residential care facilities (Ludlow et al., 2020). Yet despite its broad use within other disciplines, its use within police research has been sporadic and limited to less than ten studies. This is both unclear and surprising since much of police work involves subjectivity, which QM can measure. Early police QM studies examined officers' motivations in undertaking the police promotion process (Scarborough et al., 1999) and black, Asian and white youth's perceptions of the police (Waddington and Braddock, 1991). More recently, police QM studies have examined officer perspectives on the police profession (Bayer et al., 2014), police perceptions of gang characteristics (Ratcliffe, 2016), public value through policing priorities (Vo et al., 2017) and police reform in Northern Ireland (Kearney, 2018).²⁶ This study adds to the small number of QM studies in policing. As far as can be ascertained, this study is the first to adopt QM as part of a mixed-methodological study within police research.

²⁶ At the time of using QM to gather data for this study, the previous police study making use of this method was Bayer *et al.*'s (2014) study of officers' views towards the police profession.

Having presented an overview of the history of QM, its originating discipline and its use within police research, the following sections explain QM in practice and the various stages of a QM study.

3.7.3. How does a Q-methodology study work?

In a traditional approach QM study, individual participants are asked to sort a series of statements (known as a Q-set), according to their opinion, usually from strongly agree (+5) to strongly disagree (-5) on to a Q-sort grid, in a process known as Q-sorting. These statements each make a different but recognisable assertion about the subject matter and are usually drawn from academic literature but can be drawn from formal interviews and informal discussions. The range of statements must broadly represent the full opinion domain on the subject matter (Watts and Stenner, 2005).

Figure 4 below shows the layout of a typical forced distribution Q-grid where participants, in this case, would be asked to sort 48 Q-statement items onto the grid. This grid is a forced distribution because, as can be seen below, only one statement may be placed on each position, thus resulting in the participant having to make a reasoned choice between each statement's placement on the grid. The vertical order in which a participant sorts the statements is unimportant. For example, those statements placed in the -3 column are all scored the same in subsequent analysis.

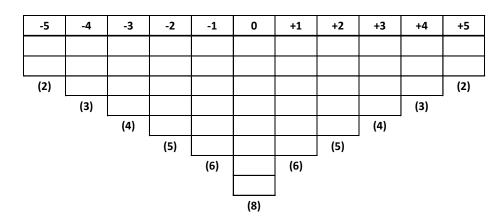


Figure 4. Q-grid designed for use with a 48-item Q-set.

A completed grid or 'sort' of all the Q-set statements provides what is described as a Q-sort. Having completed the sorting process, participants are asked to record on a separate data

sheet the position in which they have placed each numbered statement. Figure 5 shows a completed Q-sort from this study.

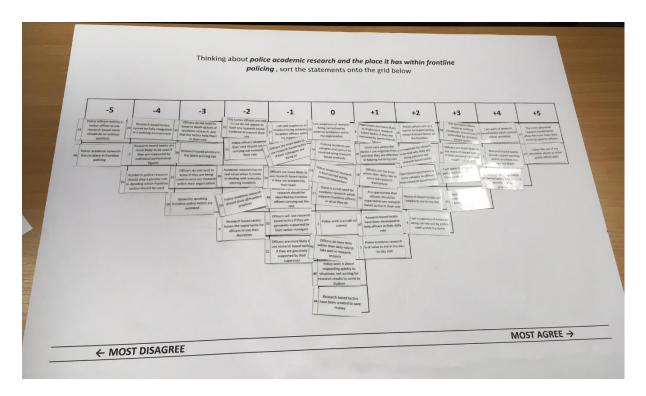


Figure 5. An example of a completed Q-grid.

Having completed individual Q-sorts in the first stage of the QM process, participants are then further required, in a second stage, to provide information regarding their placement of statements at the extremities of the board (+5, +4, -4 and -5). Firstly, this provides details of the sorting rationale, and secondly, it helps to understand why a participant may have a different rationale for placing the same statement, in the same position, as another participant in the study. Sorting rationale data is usually obtained in a face to face, post-sort interview, though it can be captured using a self-completion questionnaire, as was the case in this study.

This process of capturing QM data in the form of the completed Q-sort, and the subsequent analysis, can be said to 'reliably, scientifically and experimentally – in the very act of being an operant' capture the participant's subjectivity relating to the research topic (Watts and Stenner, 2012, p.26). It is the participant's viewpoint which is made to impact upon the immediate environment, namely, the Q-set statements, and it is the nature of that impact, carefully captured under experimental conditions, that is made a 'publicly accessible form of their completed Q-sort' Watts and Stenner (2012, p.26).

Having completed the Q-sort and post Q-sort questionnaire stages, the Q-sort data sheets from each participant are collated and uploaded to a dedicated Q Method statistical software programme for analysis. In this study, PQMethod (Schmolk, 2018) which uses the statistical application of factor analysis, was used to analyse the data (Child, 1990; Kline, 1994).²⁷ During analysis, the Q-sorts of all participants that load significantly on a given factor are merged together to produce a single 'best estimate' Q-sort which characterises that viewpoint. It is these 'best-estimate' viewpoints (termed factor arrays) which are subsequently qualitatively interpreted by the researcher (Watts and Stenner, 2005). The researcher considers the positioning of the statements on the 'best estimate' grid for each viewpoint and provides a narrative interpretation of the viewpoint. In this study, as will be observed in Chapter Five, six clear viewpoints (factor arrays) were generated from the analysis.

In this section, I have described the stages undertaken in a traditional approach to a QM study. The following section presents the extension I added to this method by using Q-sorting as a cognitive tool to gather further qualitative data.

3.7.4. Q-sorting as a cognitive tool

In undertaking QM, I sought to obtain the shared viewpoints of the groups using a standard application of the method. However, by the very nature of how this is carried out, mostly under silence, I would not obtain data from a live group discussion. Therefore, to capture additional qualitative data, I decided that I would ask participants to carry out a second Q-sort as part of a group. This is an extension of the traditional QM approach and uses the Q-grid and sorting process as a cognitive tool, to inform further group discussion. I anticipated that this would be undertaken in groups of four to five officers, which I would audio-record and transcribe for thematic analysis, using the qualitative data analysis software package NVivo 11 (QSR International Pty Ltd., 2015). The completed Q-grids cannot be used for interpretation using PQMethod, since they are a collective group sort of views. However, the emergent qualitative comments can add further breadth and scope of explanation to the range of views created by this addition to the original QM method (Schulenberg, 2007). For clarity, and to attend to potential criticisms from QM traditionalists, this extension to the traditional method does not affect the integrity of the original application of QM. Rather, it provides additional qualitative data to enhance the traditional narrative. Group Q-sorting, using the grid and sorting process

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 $^{^{27}}$ For further detail of the statistical analysis process used by PQMethod, see McKeown and Thomas (2013).

as a cognitive appears has not been used before in social scientific research and is a new and unexplored methodological approach.

3.7.5. Developing the Q methodological instrument

A Q methodological instrument consists of a Q methodological research question, the Q-set of statements and the Q-grid. The following section describes the processes undertaken in designing the Q instrument.

Figure 6 below shows an overview of the key stages in the design and administration of a standard QM study, adapted from the work of #. In addition to the standard stages, it also shows the adaptations I made to the method by using Q-sorting as a cognitive tool for further data collection (shown in blue).

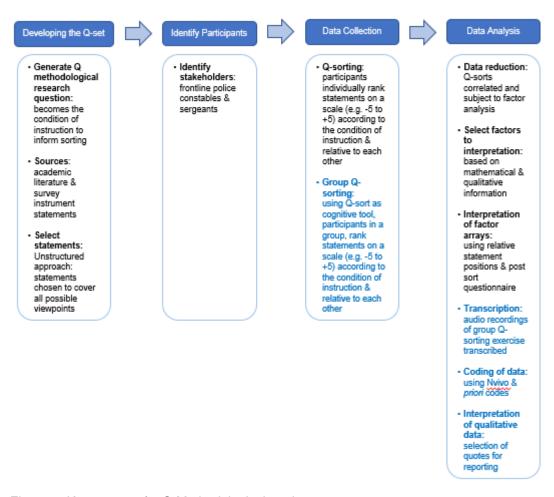


Figure 6. Key stages of a Q Methodological study.

3.7.5.1. Designing the Q methodological research question

The most challenging aspect of designing the instrument was the generation of the 'Q methodological research question' (referred to as the Q-research question henceforth) (Watts and Stenner, 2012, p.53). To obtain the shared viewpoints of individuals relating to the same subject, within the same context, participants in QM must be able to sort a series of items or statements effectively 'along a single, face-valid dimension', in this case from most agree to most disagree, with reference to a central Q-research question. There are several types of Q-research questions but to allow participants to answer this question, it must be simple in wording and avoid ambiguity and the use of multiple propositions (Watts and Stenner, 2012, p.53).

Given my research aim was to better understand officers' views towards research in frontline policing, I settled upon the following question:

'What place does police academic research have within frontline policing?'

This is a representation style research question, where the participant is invited to reflect upon how an issue (police academic research and its place in frontline policing) is 'typically constructed or understood within a particular group, institution or cultural setting' (Watts and Stenner, 2012, p.54). In asking officers to sort the statements according to the central Q question above, I aimed to explore how frontline practitioners understand research in frontline policing.

3.7.5.2. Designing the Q-set, Q-grid and post Q-sort questionnaire

In writing the Q-statements for what is collectively known as the Q-set, I returned to my survey instrument. Given that this was designed around ten analytical themes found within the existing literature (see Section 3.6.1), I felt confident that at least some of the statements I had asked officers to rank in my survey would provide an opinion in response to my Q-research question. After carefully considering each survey statement, I selected 70 for my sample. The selection of these particular statements, to form the sample, was based on the aim of providing the participant with the fullest range of possible opinions and perspectives concerning the Q-research question, without ambiguity or overlap (Watts and Stenner, 2012, p.58).

Conscious that the success of this strand relied heavily upon ensuring that the Q-set was as comprehensive and balanced as possible, I set about the process of scrutinising the initial 70 statements. Those which did not obviously provide an answer to the Q-research question, or were duplicated, were discarded immediately. Similarly, any statements which appeared contradictory or misleading (although this should not have been the case given the scrutiny when writing them for the survey) were either reworded or removed entirely. This repeated evaluation, rewriting, and elimination process left me with a smaller sample of 60 statements, forming an initial Q-set, which I subsequently tested using a pilot (see Section 3.7.5.3).

In designing the Q-grid, I adopted a forced-choice distribution, described as such because participants are forced to rank each statement individually, relative to one another, with a fixed number of statements at each value point. For theoretical reasons, a near-normal and symmetrical distribution is recommended, labelled from a positive value at one end through to a negative value at the opposite end (Watts and Stenner, 2005, p.78). In this case, I used integer values between +5 and -5, or an 11-point distribution, for my grid (see Figure 4).

3.7.5.3. Conducting a pilot

Having constructed an initial set of statements, these were piloted with the aim 'being to achieve optimum balance, clarity, appropriateness, simplicity and applicability' (Cross, 2005, p.209). The pilot of the Q-statements involved three serving frontline officers, again former colleagues, two constables and one sergeant. During the process, I asked them to examine each statement individually, relating it back to the central Q question, identifying ambiguous, misleading or duplicated statements or those that did not offer an answer to the central Q question. Following discussion, statements in the sample were either retained, rewritten or removed. I also asked them to identify any missing opinions or perspectives they felt should be added to the sample. The pilot in this phase also enabled me to ascertain how long it would take an officer to complete the individual Q-sorting process, including the post Q-sort questionnaire. Specifically, the pilot helped me identify that I needed to reduce the length of time it took me to deliver my session introduction, to fit within the session timescales (Malmqvist *et al.*, 2019).

To align with the original ten-theme weightings, I revisited the final Q-statements individually, reassigning each a theme. Finally, I tallied these themes to ensure that the Q-set was both comprehensive and balanced in terms of the subject field and my analytical themes. There are no specific rules as to the number of statements which can or should be included in a

finalised Q-set, only that there ought to be enough to ensure that the subject field of opinion can be covered comprehensively (McKeown and Thomas, 2013). Too few may render the Q-set incomprehensive and insufficiently representative. Too many statements may be difficult for the participant to manage physically, resulting in 'sorting fatigue', therefore a Q-set consisting of between 40 and 60 statements is deemed appropriate (Watts and Stenner, 2012, p.61).

This second round of evaluation, elimination and rewording resulted in my final 'structured' Q-set consisting of 48 statements, a number considered to be within the appropriate range (see Appendix Four). McKeown and Thomas (2013, p.23) suggest that in contrast to unstructured samples, structured samples are less likely to encounter criticisms of their representativeness given that they are 'systematically composed' by a 'sufficiently comprehensive and theoretically elaborate experimental design'. This sampling and statement design method links the academic theory and existing literature to the Q-set statements.

As the only researcher, and given the sessions' time constraints, I knew I would be unable to complete individual, face to face post-sort interviews with each participant. Therefore, I produced a post Q-sort questionnaire for self-completion by each participant, to record their sorting rationale for statements placed at the extremities of their grid (in positions -5, -4, +4 and +5; see Appendix Five). Participants' sorting rationales, in the form of qualitative statements, are referred to as exit comments in discussions in Chapters Six and Seven.

3.7.6. Identifying participants

The most challenging aspect of carrying out the qualitative strand was regaining access to each force research site. Although I had secured overall permission to carry out my research within each of the forces, I had to, to some extent, renegotiate this access when arranging the group Q sessions. This process centred around the operational practicalities of gathering enough officers to take part in the groups, as per my original request. Before the start of the qualitative strand, the gatekeeper from Force 1, the smallest of the forces informed me that they could not provide access to participants given the operational commitments of the force and a shortage of staff. I, therefore, proceeded with the remaining three forces.

Ideally, the participants for the Q sessions would have been non-purposively selected. However, as is often the case within policing organisations, and something which I have experienced first-hand, officers are often nominated to take part in research studies. Therefore, the force gatekeepers selected participants to take part in the Q sessions on my

behalf. I am not aware of the selection procedures, though I suspect the majority were nominated because they were simply operationally available at the time and were told to attend. This impression was supported by comments made by some officers at the start of the sessions. I could have asked how the gatekeepers had selected the participants in hindsight. Whilst the participant selection by the gatekeepers was not representative of the population across each force, ultimately QM is not concerned with the individual's Q-sort, nor generalisability, but with the shared viewpoints of a collective group. Given the number of Q-statements and the almost infinite number of sorting possibilities, it is highly unlikely, if not impossible that any two participants would sort in the same way (Cross, 2005).

3.7.7. Data collection: executing a Q method design

Conducting the QM design was not as straightforward as the process outlined above and several factors complicated the administration of this strand. Below, I offer my reflections on the main issues encountered in undertaking group sessions and building rapport.

The Q sessions took place between June and December 2017. Having carried out the first two sessions in Force 4, I realised that to manage the group effectively, particularly during the second group Q-sort, it would be more effective to have only one group of four to five officers within a session. Given I was still in conversation with the gatekeepers regarding times and dates suitable to hold the sessions, I was able to request smaller numbers of participants, making it more manageable for them to accommodate in terms of officer availability. Having smaller groups allowed me to effectively engage with participants when explaining how to complete the individual Q-sort stage and facilitating the discussions during the group Q-sorting activity. The only disadvantage to this diversion from my original plan, of holding two larger group sessions within each force (one for PCs, the other for sergeants), was having to conduct twice as many sessions in each force.

To build rapport and put participants at their ease, I disclosed in my introduction that I had previously been an operational sergeant and that one of my research aims was to give a voice to frontline officers, in terms of the role compatibility of research. Although it is hard to assess the impact of this on participants or the data they provided, in explaining my background and objectives, I felt that this consolidated my status as an 'outsider insider' and was morally and ethically correct as a researcher (Brown, 1996, p.181).

As each session progressed, from individual Q-sort to group Q-sort, it became apparent that participants settled into the group environment and the discussion and humour between individuals increased as the officers relaxed.²⁸ This was reassuring, and my confidence as a researcher grew with each Q session that passed. My role as a researcher was not a passive one throughout the sessions. Instead, I acted as a facilitator where necessary, particularly during the group Q-sort, to glean a depth of explanation from officers about their comments. This ensured access to the qualitative richness I sought by using this type of research method (Bryman, 2012).

In my role as researcher, I did not influence how participants sorted the statements onto the grid, and I cannot know if they sorted each statement whilst simultaneously considering the central Q-research question. However, I did reiterate to the officers how important it was to keep referring to the Q question at the top of their Q-grid when sorting the statements. I also moved between the groups encouraging, answering individual questions, and using humour as a means of engaging with my participants. Although most officers seemed apprehensive initially, they became more generally engaged throughout the session, particularly after completing their individual Q-sort.

The Q sessions were attended by 31 frontline constables and 26 sergeants from the three participating forces. Table 3 below shows the number of participants by force and as a percentage of the force's frontline population.

Table 3: Sample of participants as a % of the total number of frontline officers

		Frontline	Sample
	n	Total	%
Force 1	0	298	0.0
Force 2	21	537	3.9
Force 3	19	2600	0.7
Force 4	17	1750	1.0
Total	57	5185	1.0

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²⁸ Appendix Thirteen shows officers carrying out the individual Q-sorting process.

3.7.8. Data analysis

Having completed the Q sessions across three forces, I had gathered 57 individual Q-sorts and post Q-sort questionnaires, and around 10 hours of audio data from the 13 group Q-sorting sessions.

3.7.8.1. Individual QM analysis

Details of the analysis and interpretation of the traditional QM data are presented in Chapter Five of this thesis, in proximity to the data it refers to (see Section 5.2).

3.7.8.2. Group sorting discussion analysis

Using the group Q-sorting process as a cognitive tool was to facilitate officers' broader discussion around the Q-statements and obtain supplementary audio data. My objective was not to attribute opinions to specific individuals within the group, based on individual demographic characteristics, but to capture officers' collective views from a position of 'looking in', where the Q-sorting process, as a cognitive tool, facilitated the discussion between officers.

Given the large volume of audio data that I obtained, I employed a professional transcriber for the audio transcription, given personal circumstances which meant I did not have the time to transcribe the data myself. I requested full verbatim transcriptions for each of the 13 group recordings, comprising 6 sergeant groups and 7 constable groups. Given that each group consisted of officers of the same rank, the transcriber did not need to indicate the rank of each participant as they spoke. The final transcriptions were as close to the spoken word of the participants as possible and included full punctuation, the use of colloquial language, hesitations and references to laughter. Before the subsequent analysis of the transcriptions, I listened back to the audio recordings, specifically the comments I had subjectively chosen to report in my analysis and findings, to ensure that the meaning attributed to the written words in the transcription matched that which was spoken. I asked the transcriber to identify participants in the transcription by their gender to assist me with the process of listening back and transcript navigation. The benefits of using a transcriber significantly outweighed the disadvantages and I do not believe it compromised the data or the subsequent analysis.

3.7.8.3. Group Q Analysis using NVivo

Having received the transcriptions back from the transcriber, the transcripts from each group were numbered and uploaded to the qualitative data analysis software NVivo 11 (QSR International Pty Ltd., 2015) (shown in Appendix Six). Following Braun and Clarke's 'phases of thematic analysis' (2006, p.87), initial examination and basic coding of the entire data set, by hand, identified approximately 100 emergent codes, which I attributed to 11 preliminary themes drawn from police literature (see Appendix Seven for the initial coding sheets). I then created and labelled 11 nodes (or folders) within NVivo to reflect these initial themes (shown in Appendix Eight as a list within NVivo). These initial themes were suspicion (C1), openness to research (C2), supervision (C3), discretion (C4), experience over research (C5), role perception (C6), culture and social norms (C7) and communication (C8). Two further themes, team and motive, were also recorded, alongside a further theme labelled 'good quotes'. The rationale behind using preliminary themes, drawn from police literature, was to facilitate and simplify the process of integrating the findings from the qualitative and quantitative strands of this mixed-methods study (Bergman, 2008).

These themes and emergent codes were then reviewed whilst re-reading each transcript, in turn, several times over (Braun and Clarke, 2006). I then subjectively attributed officers' comments to each node as appropriate, paying careful attention to adhering to Gibbs' good practice guide for creating nodes (2002, p.67). An example of a group Q transcript with coding and node allocation is provided in Appendix Nine (related to suspicion (C8)). To avoid what Gibbs describes as 'definitional drift' (2002, p.67), I continually reflected upon whether the text coding did indeed fit with the node definition. I also considered overlap and redundancy, and thereby undertook a process of data reduction using coding to reduce, index and analyse my data (Elliott, 2018).

Having completed the process of coding to the 11 theme nodes and a detailed analysis of the topics, I then reviewed and 'collapsed' these into named eight sub-themes (Braun and Clarke, 2006, p.91). I also used these sub-themes as a framework to structure and report both my quantitative and qualitative analyses: *openness*, *value* and *role* under the broader research theme of 'Receptivity to Research', and *suspicion*, *communication*, *supervisor*, *discretion* and *team* under the broad theme of 'Challenges to Research'.

Having described the data analysis of the group Q transcripts and before describing the ethical considerations associated with this strand, two important points should be made. Firstly, it should be noted that qualitative data from quotes from the group QM sorting exercise are not

presented in Chapter Five, the QM results chapter. This is because they are a distinctive set of results which sit beyond the scope of a traditional QM analysis. Instead, these quotes are used throughout Chapters Six and Seven to create and enhance the narrative woven throughout the discussion. Secondly, as Fleming (2020, p.158) notes, there can be a propensity when analysing transcripts to emphasise those quotes that 'vividly' illustrate the point one is trying to make. In discussion Chapters Six and Seven, I have presented quotes from the NVivo analysis of the group Q-sorting exercise described above (and Q exit comments) on this precise basis. However, I have also endeavoured to present a balanced set of quotes representing the range, depth and frequently of views shown by officers which have decisively shaped and defined the sub-themes of this study (Fleming, 2018).

3.7.9. Ethical considerations

3.7.9.1. Informed consent

I approached the issue of informed consent for participants within the QM strand of this study in the same way as the quantitative strand. Officers who attended the group research sessions were each provided with a participant information sheet and a consent form which they were asked to read and sign (see Appendices Ten and Eleven respectively). Participants were then asked to complete a demographic data form (see Appendix Twelve). For this strand of the study, given the interactive nature of the Q-sort activity, emphasis was placed upon anonymity and confidentiality in the two research documents provided. These reassured participants concerning the independence of the research from the host organisation, the study's sponsorship, and their right to anonymity. Of the 58 participants who arrived to participate in the group sessions, 57 officers signed and agreed to participate in the study, with one officer leaving the room after reading the information sheet and before signing the consent form.

3.7.9.2. Confidentiality and anonymity

Given the nature of QM and the presentation of shared viewpoints, it was not necessary when using the individual Q-sorts to anonymise the data relating to the individual or the force. For data emerging from the follow-up Q questionnaires, I anonymised the data obtained from participants using coding at the recording stage. This code was known only to me and based upon demographic data. For the group Q-sorting activity which I audio-recorded, the participants were referred to in the transcriptions as either Respondent Male (RM) or

Respondent Female (RF) and the Q-group comments have been coded as GD sergeants or GD constables. It is not possible to identify the individuals using these codes and this ensures both participant and force confidentiality since the codes are only known to me.

3.8. Mixed method data integration strategy

Having presented a detailed explanation for the design and implementation stages for both strands of this study, it is pertinent at this stage, before the data analysis chapters, to explain how I managed the integration of the quantitative and qualitative data I collected. As described in Section 3.4.2, in a convergent parallel design, data from each strand is gathered and analysed independently to answer the same research questions (Creswell, 2009). Scholars have frequently noted the practical challenges associated with integrating two different types of data in a mixed-methods study, and the required researcher expertise to carry out research in both areas (Bryman, 2006; Bergman, 2008; Almalki, 2016; Creswell and Plano Clark, 2018). Bergman (2008, p.81) notes, that 'simple strategies for addressing these methodological challenges are not easily applied or recommended' and argues that researchers must 'display ingenuity in building customized solutions' to the challenges they are presented with. In seeking to overcome the challenges of integrating different forms of data and in my case, three forms of data; questionnaire data, Q typology data and Q-group discussion data, I adopted two important strategies.

Firstly, in designing the two strands, I followed Erzberger and Kelle's (2003) guidelines for data integration and used 'comparable topics or questions for both arms' of my study (Bergman, 2008, p.73). As described in Sections 3.6.1 and 3.7.5.2, I wrote the questionnaire statements first followed by the Q-statements for the qualitative strand, both based on the same emergent themes from the literature review. As a result, some of the Q-statements shared the same or similar wording to the questionnaire statements, others referred to the same topic area. In using comparable topics for each set of statements, I hoped to simplify merging the two sets of data insofar as possible, with the qualitative data elaborating on the quantitative survey data (Bergman, 2008).

Secondly, in the three separate data analysis phases, I allowed the analyses to 'talk to each other' in an informal, semi-iterative way after each independent analysis had taken place (Teddlie and Tashakkori, 2009, p.266). I used knowledge from the qualitative analysis, specifically the group Q discussion data which generated eight sub-themes from thematic analysis, to create a single framework to integrate and discuss the findings for both strands

(see Section 3.7.8.3). This framework of eight sub-themes has been used to structure the understandings from both strands and combine these as meta inferences, in discussion chapters Six and Seven.

Having presented details of the data integration approach adopted, this chapter concludes in the final section below with some reflections on my positionality as the researcher within the study.

3.9. Researcher Positionality

3.9.1. Reflexivity and positionality

Darwin Holmes defines positionality as 'an individual's worldview and the position they adopt about a research task and its social and political context' (2020, p.1). Understanding one's positionality within a study is integral to the research process since the beliefs and worldview of the researcher can influence the research process and therefore the development of knowledge. A researcher's positionality or 'situatedness' can be influenced by their personal characteristics, including race, gender, ethnicity, sexuality, social class, positions of power, relationship with their participants, and personal and professional beliefs (Stockdale, 2017. Berger (2015) argues that the position of the researcher in the study can impact the research in three ways. Firstly, the researcher can affect access to the 'field', where participants are more likely to respond to a sympathetic researcher, by sharing their experiences more freely. Secondly, positionality can shape the nature of the researcher-participant relationship, thus influencing the depth and amount of information shared, particularly where the researcher shares the participant's experience. Thirdly, the worldview and background of the researcher may affect how the researcher 'constructs the world, uses language, poses questions, and chooses the lens for filtering the information', thus potentially shaping the resulting findings and conclusions (2015, p.220).

Notwithstanding the role positionality plays within the research process, there is an increasing emphasis within the literature on the role of reflexivity in informing such positionality. (Lumsden and Winter, 2014; Stockdale, 2017). In recognising the importance of reflexivity, Stockdale suggests that a reflexive process ought to consider the way in which the researcher is shaping the research and vice versa, whilst acknowledging that positionality influences the reflexive process itself (2017, p.315). A reflexive approach to positionality, whereby the

researcher does not try to eliminate their effect on the research but instead aims to understand their influence on and within the research, is to be desired since no research can ever be truly value-free (Darwin Holmes, 2020).

My positionality within this study has affected all aspects of it, from influencing the research aim and choice of research questions, to the methods chosen, the data collection and interpretation and the presentation of my findings. This section summarises that positionality and offers some reflections on the role I have played in the research process. More importantly, it suggests how this may have affected the outcomes of this study. Writing this positionality statement has required much soul searching but has given me a chance to take stock and look holistically at the research journey I have been on. Moreover, it has been a form of cathartic release. Whilst I have written this statement largely uninterrupted, the contents have been drawn from reflective notes I made at different stages during the research process.

Savin-Baden and Major (2013) present three ways in which a researcher may find their positionality related to 1) the subject, 2) the participants and 3) the research context and process (2013). In the following section, I use these themes to describe the influence of my positionality as I have moved through the research process.

3.9.2. Professional and personal context

In applying for the PhD, I wrote my research proposal for this study whilst still a serving sergeant, in the months before leaving policing in October 2015. Therefore, my professional and personal background at the time undoubtedly influenced how I approached the proposed methodology for the already-written title of the study – 'Getting the Grease to the Squeak': a mixed-methodological approach seeking the views of frontline officers towards research evidence in their role. Resigning from the police service was a particularly upsetting experience and as a such, the early stages of the study and research process were undoubtedly influenced by the angst of leaving 'the job' and excitement at the prospect of starting something new.

During the early stages, I viewed myself as what Brown describes as an 'outside-insider'; someone who was previously part of the researcher group and who now sat outside the group, but with a vested interest (1996, p.181). Whilst attributing this label to myself, I often reflected on and struggled with, whether I was truly an outsider or an insider, tending to view the positions dichotomously. I have subsequently realised that, as several scholars note,

positionality is situation and context-dependent and can be viewed as moving freely along a continuum (Rowe, 2014).

3.9.3. Positionality and the subject

Finding my positionality at the beginning of the research process, in conducting the literature review and designing the methodology for the study, is a relatively easy endeavour. In the early stages, when conducting the initial literature review, I viewed the study as an opportunity to 'give a voice' to frontline officers, whom I felt were often ignored in policy and practice decision-making within policing, allied to my personal beliefs and experiences. This shaped my search for literature, my choice of keywords and my understanding of the material within. I found myself naturally drawn to literature which reflected my thoughts at the time especially practitioner involvement in research, and the subsequent gap I felt I had uncovered. In this regard, my positionality influenced how I understood and interpreted ideas, and the level to which I accepted others' research findings as true (Darwin Holmes, 2020, p.5). In retrospect, I have come to understand that this noble cause of seeking to give officers a voice was ultimately to allow me to have a voice, having felt largely ignored throughout my policing career. Therefore, my central research aim and questions were subconsciously aligned with my own wish to be heard in amongst the voices of my former colleagues, from the position of my previous role in policing (Berger, 2015). This does not mean that the research aims or questions were not valid, merely that my positionality influenced them at the time.

3.9.4. Positionality and participants

As a former officer, I have occupied the position of 'insider' in many respects. There are several views on the strengths of the insider's position, largely centred on questioning the ability of the outsider researcher to competently understand the insider and their culture (Herod, 1999). Conversely, the opposing argument questions the ability of the insider researcher to sufficiently remove themselves from the culture, to present a non-biased research account of it. I have experienced both sides of this 'double-edged' sword (Davis, 2020, p.6). As an insider, I have brought a situated knowledge and competency of understanding to this study: I arguably asked more insightful questions and was perhaps more trusted by my participants. Certainly, research access was aided by my having been an insider. Conversely, at times, I have also struggled to separate myself, as an insider, from the data itself, particularly during the analysis and writing up stages. I may have been too close to and too familiar with the world described by my participants, often unable to 'see the wood for the trees'. The challenge of retaining a suitable research distance from their experiences

has been one of the most significant I have faced, though through the reflexive process I have recognised and taken steps to mitigate this (primarily through professional discussions with academic colleagues).

Throughout this study, I have also shaped and reshaped my own identity, particularly in the early stages where I encountered my participants. I have presented myself in different ways, in different contexts and there has been a 'fluidity' to my identity within the research process (Thomson and Gunter, 2011). An example of this is found in my choice of wording for my survey invitation, where I did not disclose my previous rank but identified myself as a former serving officer, who was now a researcher, independent from policing. Within the group QM sessions, I chose to reveal my previous rank and role and justified the purpose of my research as seeking officer opinions, which I explained I felt were not often heard. In this context I was seeking to align myself within their group as an insider-outsider, sympathetic to their situation, sharing their experiences to gain a greater depth of information from them.

3.9.5. Positionality and the research process

From the very beginning of this process (though not whilst writing the proposal as a serving officer) I was acutely aware of my obvious biases, emanating from the circumstances under which I left policing and the personal disappointment this created. I, therefore, strived to keep these biases out of the data collection phases. In undertaking the data gathering processes, my position as an outsider insider (Brown, 1996, p.181) arguably smoothed research access to all four police forces. The two forces I had previously worked for granted me access with relative ease, and the other forces accepted my request for research access similarly without issue. I believe the gatekeepers' views of my insider status facilitated this process, though, of course, I do not know how they viewed me as a researcher and whether this did indeed influence their responses to my request. In my reflections from the time, I noted that I felt comfortable in my conversations with police officers and staff and that it was 'like being back at work', negotiating as I had done with force gatekeepers in my old role, using terminology familiar to both sides. Given my distance from policing now, I wonder whether I would be granted the same research access as easily.

Beyond undertaking the literature review and securing research access, during the survey and QM instrument design, I also tried to avoid obvious bias within the statements I was writing. I now recognise that I was nevertheless being influenced by my unconscious thoughts regarding the potential barriers and challenges to research within policing. This is evident in some of the choices of words I used, and with hindsight, I would have tempered the wording

(certainly within the survey statements). In designing the survey, I also wrestled with how I would define or introduce myself in my opening information for the survey invite, attuned to how my participants would view the study and myself as the researcher. I settled on identifying myself only as a former officer, avoiding the use of rank, and presented the research rationale simply as gaining a better understanding of their views towards research, again alluding to my insider status, without rank.

In undertaking the QM sessions, my position and status as a former sergeant, a white female from the North East of England (visibly pregnant in the latter groups), is likely to have influenced how my participants viewed me as the researcher and in turn their responses. I did choose to disclose my previous rank and role to participants in the face-to-face group sessions, alongside my aim of affording frontline officers a voice within my study. I did not want to influence their responses based on my previous history, yet I felt that by introducing these details, we could all be our authentic selves within the sessions. As researcher and participant, we shared a lived familiarity and a priori knowledge; this feeling of being comfortable and at ease in the police environment, with police officers, was a positive aspect of the study. Indeed, I felt happy when officers made comments such as 'you can tell you were one of us', thus reflecting elements of police occupational culture at play in the 'them and us' mentality (Reiner, 2012). This feeling of being welcomed back to the fold temporarily left me feeling confused and conflicted, since I was no longer one of them, but felt that way momentarily.

Furthermore, throughout this study, I have subconsciously viewed the sergeant's role as intrinsically different to that of the constable, this time a 'them and us' view between the two ranks. Initially, I was not aware that I was doing this, but as I have moved through the study, I have become more aware of this. Therefore, this personal view and the underlying beliefs shaped by my experiences have influenced how I have approached this study – the literature, the methodology and towards the later stages, the interpretation of the data and thus my findings. I recognised this in the data analysis stages, in which I clearly delineated between constables and sergeants, thus asserting a subconscious belief or assumption that the roles are different. Whilst I did not necessarily view the sergeant's role as conflicting with the constable's role, how I approached my data collection and the presentation of my findings, separating the two ranks, perhaps suggests otherwise. Becoming aware of this at the data analysis stage, through the reflexive process, enabled me to consider how these thoughts might influence my interpretation, the findings and the presentation of the knowledge generated. I have since made sense of this by acknowledging that what I was seeing was different views of the same thing, from the perspectives of my participants.

3.10. Conclusion

In this chapter, I have presented the rationale for adopting a mixed-methodological strategy within this study. I have presented the approaches to each of the two strands, including the design and collection, and the central ethical considerations relating to informed consent, confidentiality and research independence. I have also introduced the strategies and methods adopted to manage and subsequently analyse the data that was gathered. I have paid specific attention to explaining QM as an innovative method in police research and highlighted my unique use of this method as a cognitive tool. Finally, I have reflected upon my positionality within this study. The limitations of this study are presented as a discussion of the combined limitations of both the quantitative and qualitative techniques, which is brought together in Chapter Eight, the final chapter of this thesis.

The following chapter, Chapter Four, is the first of two results and analysis chapters and presents the data obtained during the quantitative strand of this study using the questionnaire survey instrument. Chapter Five, the second results and analysis chapter, discusses the data obtained during the qualitative QM strand.

Chapter Four: Questionnaire Results and Analysis

4.1. Introduction

This is the first of two data chapters, and it presents the survey data obtained from the questionnaire during the quantitative strand of this study. Chapter Five will discuss the data obtained in the qualitative strand. This chapter focuses on two central themes: 'Receptivity to Research' incorporating three sub-themes – *openness, role* and *value* aligned to RQ₁ to RQ₃²⁹; and 'Challenges to Research' which incorporates five sub-themes – *suspicion, communication, discretion, supervisor* and *team* aligned to RQ₄.

This chapter initially considers the demographic data from the survey participants, followed by a discussion of the strategy used to analyse the questionnaire data. The chapter then presents the data grouped according to the two central research themes identified above.

4.2. Data Analysis

As previously described in Chapter Three, the quantitative survey data was converted and exported into SPSS for analysis (Field, 2014). The following section describes both the demographic characteristics of the survey sample (created using SPSS) and the analytical strategy.

4.2.1. <u>Demographic characteristics of sample</u>

Demographic data relating to the officers are presented in Table 4 below. In summary, 74.0% of officers identified as male, 94.0% reported their ethnicity as white British, and 88.8% reported being heterosexual. In terms of age, 70.7% of officers were aged 35 years or older, and 77.6% of officers had served as a police officer for eight years or more. Officers predominantly held response policing roles (63.9%) with the remaining 36.1% in community policing roles.³⁰ Regarding force location, 8.7% of officers were in Force 1, 32.0% in Force 2,

³⁰ Response policing is defined by the College of Policing (2021c) as 'teams of police officers that respond to emergency and non-emergency calls from members of the public'. Community policing is defined by the College of Policing (2021b) as 'teams of police officers, police staff and PCSOs (police community support officers) that police or support policing within the local community'.

²⁹ Page 52 details the central research questions.

23.7% in Force 3 and 36.5% in Force 4. Officers mainly worked in urban areas (54.2%) or within a mix of urban and rural areas (41.9%).³¹ In terms of highest level of academic attainment (HLAA), 18.6% were at GCSE/CSE level, 79.0% at A-Level/NVQ level, and 29.3% at Undergraduate (UG) degree level. A significant proportion of the respondents were constables (80.2%) with the remaining 19.8% sergeants. Table 4 presents a more detailed breakdown of respondents' characteristics based on rank.

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³¹ Officers were not provided with a definition of 'urban' or 'rural' and were therefore required to self-define whether they worked in an urban, rural or mix of urban and rural locations.

Table 4: Questionnaire sample, by rank

Variable		PC Sample (%)	Sgt. Sample (%)
Age	18–24 years	5.7	0.0
	25-34 years	26.1	15.4
	35-44 years	34.9	50.8
	45-54 years	30.7	32.3
	55 years or older	1.5	0.0
	Prefer not to say	1.1	1.5
Ethnicity	White British	94.3	92.4
	Asian or Asian British	1.1	1.5
	Black or Black British	0.4	0.0
	Mixed	1.1	1.5
	Prefer not to say	3.1	4.6
Gender	Male	75.5	71.9
	Female	21.8	25.0
	Transgender	0.0	0.0
	Prefer not to say	2.7	3.1
Sexual Orientation	Heterosexual	88.8	87.5
	Lesbian	3.1	1.6
	Gay	2.3	0.0
	Bisexual	1.2	0.0
	Prefer not to say	4.6	10.9
Length of Service	0-1 year	4.5	0.0
	1–2 years	4.9	0.0
	2–8 years	17.8	4.6
	8-15 years	34.9	29.2
	15 years or more	37.9	66.0
Role	Response	66.8	56.9
	Community	33.2	43.1
Organisation	Force 1	7.2	10.8
	Force 2	32.3	32.3
	Force 3	22.8	29.2
	Force 4	37.7	27.7
Geographical Area	Rural	42.6	43.1
	Urban	53.6	53.8
	Mix of Urban/Rural	3.8	3.1
Highest level	GCE/GCSE	19.0	13.8
of Academic Qualification	A Level/NVQ	32.3	27.7
	HNC/HND	8.4	4.6
	Undergraduate degree	27.0	37.0
	Postgraduate degree	9.9	15.4
	PhD or higher degree	0.4	1.5
	None	3.0	0.0

Table 5 presents a collapsed breakdown of the respondents based on the characteristics of rank, HLAA and length of service. At the time the study was carried out in 2017, a significant proportion of the respondents had 8 years or more of service (72.8% of constables and 95.2% of sergeants). The length of service of the respondents would likely have changed significantly

if the questionnaire was executed now, given the uplift in new officers.³² In terms of the demographic of HLAA, the effects of the PEQF and the requirement for degree-level qualifications would have unlikely significantly changed this data given the relative newness of the programme.

Although a significant proportion of the total respondents were constables (80.2%), from the outset, the data for the demographic characteristic of rank, for analysis and reporting, was intended to be broken down by constable and sergeant. Thus, given this separation of data, the divide between the two ranks in terms of the number of respondents was not an issue when interpreting the data.

Table 5: Questionnaire sample, by rank, HLAA and length of service (collapsed)

Variable (collapsed)	PC Sample (%)	Sgt. Sample (%)	
Length of service			
0-8 years	27.2	4.6	
8 years or more	72.8	95.2	
Highest Level of			
Academic Qualification			
Below UG	59.7	46.1	
UG and above	40.3	53.9	

In total, the demographic make-up of officer survey participants was reflective of the National Police Service Strength figures in terms of rank, ethnicity and gender (current at the time of survey distribution), as shown in Table 6 (Home Office Statistics, 2016). In this sample, sergeants were marginally overrepresented whilst females and Black, Asian and Minority Ethnic (BAME) officers were marginally underrepresented.

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³² In the year to 31 March 2021, 12,127 officers were recruited across England & Wales, a 172% increase on 2016 (4,735) and a 58% increase on 2018 (8,130) (Allen and Harding, 2021, p.12).

Table 6: Questionnaire Sample compared with Police Service Strength in England and Wales, 31 March 2016

		Officer Sample		Police Service Strength E&W	
		n	%	n	%
Rank	Constable	269	80.2	96 637	77.9
	Sergeant	66	19.8	18 839	15.2
Ethnicity	White	315	94.0	114 437	92.2
	BAME	9	2.7	7 218	5.9
Gender	Male	248	74.0	88 569	71.4
	Female	77	23.2	35 498	28.6

Source: Adapted from Home Office Statistics (2016).

4.2.2. Data analysis and inclusion strategy

Given that the primary purpose of the questionnaire was to measure officers' views towards EBP and research in frontline policing, the analytical strategy focused on determining whether there were any statistically significant differences (SSDs) in officers' responses based on Before initial analysis and following a critical review, 15 demographic characteristics. statements were removed having been identified as poorly worded or not directly relevant to the study's research questions. These statements are presented in Appendix Fourteen and are labelled 'removed' within the table. To explore the data, each of the remaining 30 questionnaire statements' data, designed to measure officers' attitudes towards research, underwent either the Kruskal-Wallis (KW) test or the Mann Whitney U (MWU) test for each demographic characteristic (Field, 2014). Both statistical tests are non-parametric alternatives to a one-way between-groups analysis of variance (Pallant, 2013) and were used because the responses to the statements in this questionnaire were distributed on an ordinal scale (a fivepoint Likert scale from strongly agree to strongly disagree). As such, the response data does not meet the parametric assumption of at least an interval level of measurement, thereby requiring non-parametric tests to be used (Stoller et al., 2009).

The non-parametric MWU test is designed to 'test for differences between two independent groups on a continuous measure' (Pallant, 2013, p.235). Mann Whitney U tests were applied to the demographic categories of rank and role since both categories contained two independent groups (constable and sergeant, and response policing and community policing).

The non-parametric KW test was applied to the demographic characteristics of age, ethnicity, gender, sexual orientation, length of service, role, organisation and geographical area using SPSS. This test is a non-parametric test designed to compare the scores on a continuous variable or measure for three or more groups (Pallant, 2013). In both the MWU and KW tests, the continuous variable is the answer selected by the officer to the statement 'from strongly agree to strongly disagree'. After initially subjecting the data independently either to the MWU or KW test, SSDs were observed between responses to 10 of the 30 statements based on the demographic characteristic of rank and/or HLAA. The analysis of responses to these 10 statements is logically included for presentation within the chapter.

Additionally, a further seven statements have been included for presentation, despite there being no SSDs observed between responses to these based on rank or HLAA. The decision to include these specific statements was made on the basis that they present quantitative data relating to one of the eight sub-themes (where these sub-themes have been used to structure the integration of the quantitative and qualitative results in the discussion chapters) which would otherwise be absent from the discussion chapters.³³ Appendix Fifteen shows the final 17 statements included for presentation within this chapter.

Having presented the data analytical and inclusion strategy, the remainder of this chapter is dedicated to the analysis of responses to the 17 statements. It is structured using the two research themes: 'Receptivity to Research' (Section 4.3.) and 'Challenges to Research' (Section 4.4.) and is further subdivided into eight sub-themes; *openness*, *role*, *value* and *suspicion*, *communication*, *supervisor*, *discretion* and *team* which emerged during the thematic analysis of Q-group comments in the qualitative strand of this study (see Section 3.7.8.3).

The first theme, 'Receptivity to Research', is based on five of the 17 statements. The second theme, 'Challenges to Research', is based on the remaining 12 statements. Each theme is presented using bar charts to visually represent the data, along with succinct commentary to support the interpretation where SSDs were observed between the demographic characteristics of rank and HLAA. Where no SSDs were observed, this data is nevertheless included in Appendix Sixteen for completeness of reporting.

³³ Explanation of the data integration strategy adopted, and the study's sub-themes can be found in Sections 3.8 and 3.7.8.3 respectively.

4.2.3. Officer understanding of the term 'Evidence-Based Policing'

11. How would you rate your level of understanding of the term Evidence-Based Policing?

Figure 7 shows that of the total sample of officers, 87.6% reported having some understanding of the term Evidence-Based Policing and 40.4% reported having either a good or an excellent understanding.

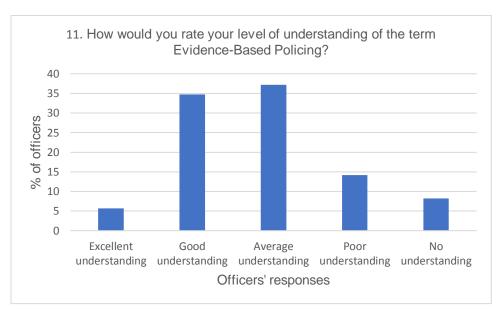


Figure 7. Responses to statement 11.

4.3. Receptivity to Research

'Receptivity to Research' incorporates officers' openness towards research (RQ₁), the role of research (RQ₂) and the value that officers place on this (RQ₃). It is measured using five statements presented in Table 7:

Table 7: Statements relating to 'Receptivity to Research'

	Openness (RQ ₁)
23.3.	I would be interested in carrying out research in my workplace
23.13.	I would be interested in evaluating EBP tactics in my workplace
	Role (RQ ₂)
23.7.	EBP are tactics for me to use in my role
	Value (RQ ₃)
18.9.	Research is of value to me in my day-to-day role
23.12.	I do not need to know about academic research, just how to use EBP
	tactics that come from research

Mann Whitney U tests on the responses to the five statements within 'Receptivity to Research' identified SSDs (p < .05) between the constables' and sergeants' responses to all five statements. Furthermore, KW tests also identified SSDs between officers' responses to all five statements based on the demographic characteristic of HLAA. Across the remaining characteristics of age, ethnicity, gender, sexuality, length of service, role and organisation, no distinct patterns or apparent clusters of statistical significance were observed. Cross tabulation bar charts relating to 'Receptivity to Research' by rank and HLAA are presented where SSDs were observed in the data. Data relating to non-SSDs for the statements based on rank and HLAA can be found in Appendix Sixteen.

4.3.1. Openness

Exploration of officers' openness to research was centred on two statements (23.3. and 23.13.) and focused on their openness towards carrying out research and evaluating RBTs in the workplace. Overall, whilst responses to both statements indicate a certain degree of openness towards carrying out *and* evaluating research in their workplace, a higher percentage of officers reported being uninterested in these activities.

23.3. I would be interested in carrying out research in my workplace

Figure 8 shows that, in response to statement 23.3., one-third of officers (33.5%) agreed or strongly agreed that they would be interested in carrying out research in their workplace compared with 45.6% of officers who disagreed or strongly disagreed. Approximately one-fifth of the officers (20.9%) neither agreed nor disagreed with this statement which suggests

that whilst there are a considerable number of officers who are interested in taking part in research, a significant number are not.

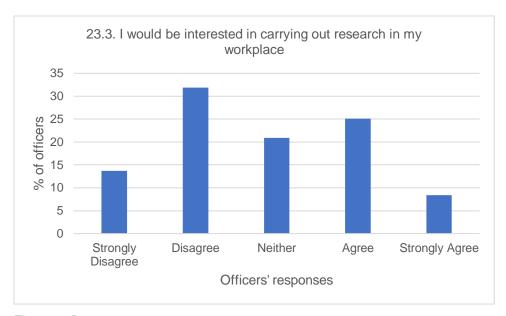


Figure 8. Responses to statement 23.3.

SSDs were observed between the constables' and sergeants' responses to statement 23.3 (*p* = .003). Figure 9 below shows that sergeants are almost twice as likely as constables to agree they would be interested in carrying out research in their workplace (52.3% and 29.2% respectively). Conversely, around half of constables (47.8%) disagreed or strongly disagreed they would be interested in carrying out research, compared with 36.9% of sergeants. Just under one-quarter of constables (23.1%) and 10.8% of sergeants neither agreed nor disagreed. This suggests differences in opinions both within and between the ranks.

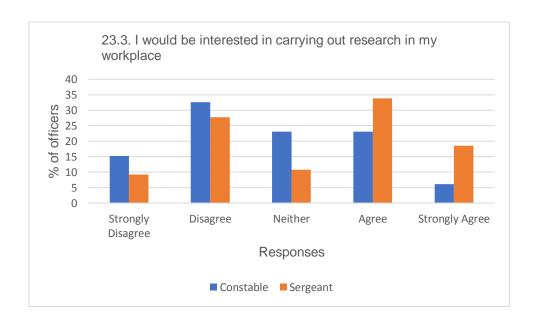


Figure 9. Responses to statement 23.3., by rank

Statistically significant differences were also observed in the statement responses based on HLAA (p = .000). Figure 10 shows that, generally, the higher the HLAA an officer has reached, the more likely they are to agree that they would be interested in carrying out research in their role. At GCE/GCSE level, 17.7% of officers agreed or strongly agreed with this statement, compared with 24.2% at A-Level/NVQ level and 28.0% at HNC/HND level, rising to 47.9% at UG level, 52.8% at PG level, and 50.0% at PhD level. Of those officers without academic qualifications, 25.0% agreed or strongly agreed with the statement.

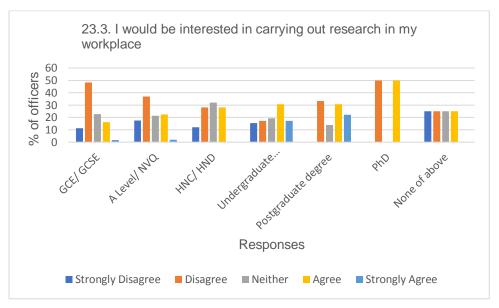


Figure 10. Responses to statement 23.3., by HLAA

23.13. I would be interested in evaluating EBP tactics in my workplace

In response to statement 23.13., Figure 11 below shows that 33.2% of officers agreed or strongly agreed that they would be interested in evaluating RBTs in their workplace compared with 40.0% who disagreed or strongly disagreed. Over one-quarter of officers (26.9%) neither agreed nor disagreed with this statement, indicating a broad range of opinions on this subject.

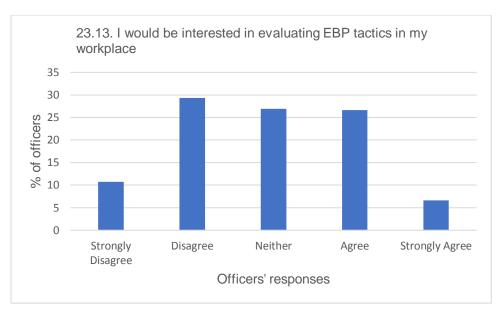


Figure 11. Responses to statement 23.13.

Statistically significant differences were observed between the constables' and sergeants' responses to this statement (p = .001). Figure 12 shows that sergeants are almost twice as likely to agree or strongly agree that they were interested in evaluating RBTs compared with constables (52.3% and 28.8% respectively). Yet, despite a significant percentage of officers who were interested in evaluating RBTs in the workplace, 43.6% of constables and 24.6% of sergeants were uninterested. Over one-quarter of constables (27.7%) neither agreed nor disagreed with the statement, compared with just under one-quarter of sergeants (23.1%).

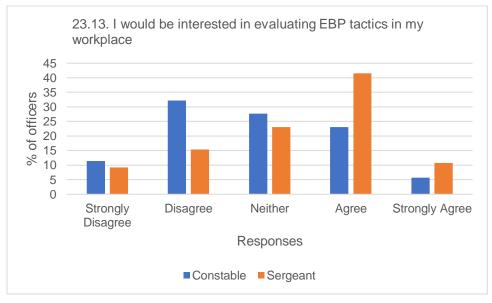


Figure 12. Responses to statement 23.13., by rank

Statistically significant differences were also observed between responses based on HLAA (p = .000). Figure 13 shows that generally, the higher the level of academic attainment achieved by an officer, the more likely they are to agree that they would be interested in evaluating RBTs in their workplace. Agreement with the statement increases sharply from UG level and above. At GCE/GCSE level, 19.4% of officers agreed or strongly agreed with this statement compared with 19.4% at A-Level/NVQ level, 8.0% at HNC/HNC level, 54.0% at UG level, 55.5% at PG level and 50.0% at PhD level. Of those officers with no academic qualifications, 50.0% agreed or strongly agreed with the statement.

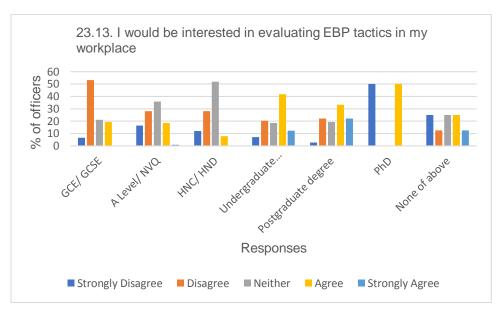


Figure 13. Responses to statement 23.13., by HLAA

4.3.2. Summary of findings relating to Openness

Combining the response data for statements 23.3. and 23.13., which were designed to measure officers' openness towards research, three findings emerge. Firstly, there is a range of opinions shown towards these statements, based on rank. Over half of sergeants (52.3%) indicated they would be interested in carrying out research, and similarly, 52.3% expressed an interest in evaluating RBTs in their workplace. Significantly fewer constables expressed an interest in carrying out and evaluating research in their workplace (29.2% and 28.8% respectively). Secondly, more constables disagree or strongly disagree than *agree* with the two statements (47.8% and 43.6% respectively). Therefore, whilst sergeants are almost twice as likely as constables to be interested in carrying out and evaluating research, constables are twice as likely not to be. Finally, concerning HLAA, the higher the level of academic attainment the officer has reached, the more likely they are to be interested in carrying out and evaluating research in their workplace.

4.3.3. *Role*

Officers' views towards the role of research in the workplace were focused on one statement which examined officers' views towards RBTs as tactics³⁴ for use within their frontline role (23.7.).

23.7. EBP tactics are tools for me to use in my role

Responses to statement 23.7. show a consensus amongst officers that RBTs are tools to use within their role. Figure 14 demonstrates that 68.3% of officers agreed or strongly agreed with this statement, compared with 3.9% who disagreed or strongly disagreed. Just over one-quarter of officers (27.8%) neither agreed nor disagreed with the statement.

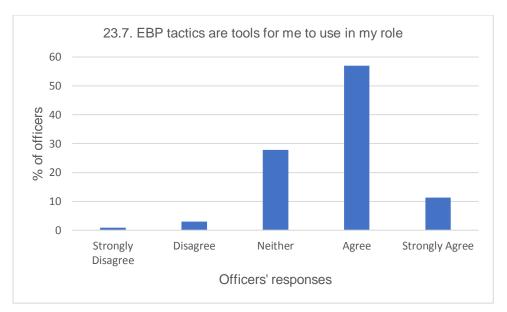


Figure 14. Responses to statement 23.7.

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Statistically significant differences were observed between the constables' and sergeants' responses to statement 23.7 (p = .001). Figure 15 highlights that 64.8% of constables agreed or strongly agreed with the statement compared with 81.5% of sergeants. A small percentage of officers in both ranks disagreed or strongly disagreed with the statement (7.7% and 3.1% respectively). Significantly, just under one-third of constables (32.2%) neither agreed nor disagreed with the statement, compared with 10.8% of sergeants.

³⁴ The College of Policing (2021a) defines 'tactics' as 'the method of deploying police resources in order to meet specific objectives'.

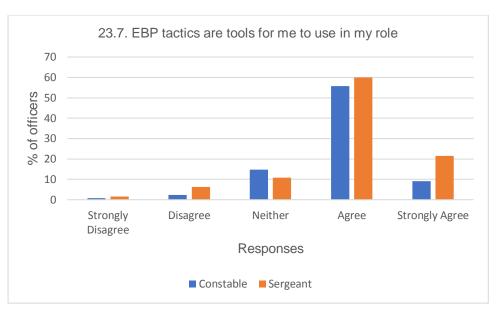


Figure 15. Responses to statement 23.7., by rank

Statistically significant differences were also observed in the statement responses based on HLAA (p = .042). Figure 16 shows that, generally, the higher the HLAA an officer has reached, the more likely they are to agree that RBTs are tools for use within their role. At CSE/GCSE level, 56.5% of officers agreed or strongly agreed with this statement, compared with 65.1% at A-Level/NVQ level and 52.0% at HNC/HND level, rising to 73.5% at UG level, 91.6% at PG level, and 100.0% at PhD level. Of those officers without academic qualifications, 72.5% agreed or strongly agreed with the statement.

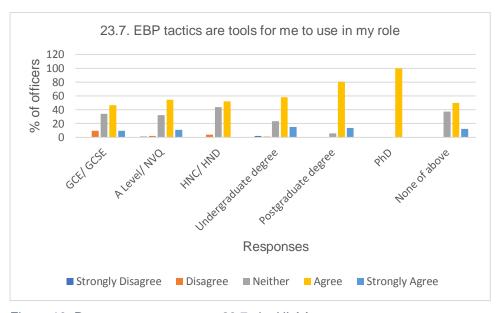


Figure 16. Responses to statement 23.7., by HLAA

4.3.4. Summary of findings relating to Role

Response data for statement 23.7., designed to measure officers' opinions of the role research ought to play in frontline policing, demonstrates broad agreement between officers that RBTs have a role to play. Two findings are evident from the data. Firstly, sergeants are more likely than constables to agree that RBTs are tactics for use within their role (84.6% and 64.5% respectively). Secondly, the higher the level of academic attainment, the more likely an officer is to believe that RBTs are tools for use in their role where agreement with this statement increases sharply from UG level.

4.3.5. Value

The value that officers place on research in frontline policing activities was focused on two statements. These asked officers to consider whether research is of value to their role (18.9.), and the extent to which they feel they need to know about research (23.12.).

In response to the two statements, many officers agreed that academic research is useful to their daily roles. However, a significant percentage of officers indicated that they did not need to know about research, just how to use RBTs. Around one-third of officers, from both ranks, neither agreed nor disagreed with the statement.

18.9. Police academic research is of value to me in my day-to-day role

Figure 17 shows that 42.1% of officers agreed or strongly agreed with statement 18.9., compared with 21.5% who disagreed or strongly disagreed. Just over one-third of officers (36.4%) neither agreed nor disagreed with the statement.

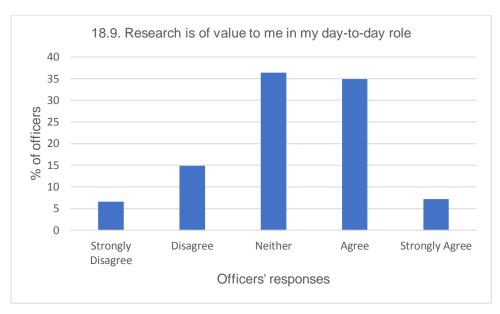


Figure 17. Responses to statement 18.9.

Statistically significant differences were observed between the constables' and sergeants' responses to statement 18.9 (p = .000). Figure 18 shows that a significantly higher percentage of sergeants agreed or strongly agreed with this statement (67.7%) compared with the constables (36.8%). However, a notable percentage of constables and sergeants neither agreed nor disagreed with the statement (39.8% and 23.1% respectively).

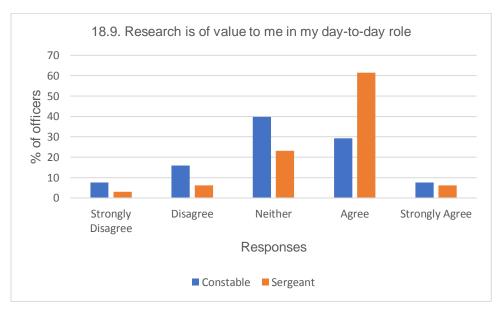


Figure 18. Responses to statement 18.9., by rank

Statistically significant differences were also observed in the statement responses based on HLAA (p = .006). Figure 19 shows that, generally, the higher the HLAA an officer has reached, the more likely they are to agree with statement 18.9. At GSE/GCSE level, 30.7% of officers

agreed or strongly agreed with this statement, compared with 37.9% at A-Level/NVQ level and 24.0% at HNC/HND level, rising to 49.8% at UG level, 58.4% at PG level, and 100.0% at PhD level. Of those officers without academic qualifications, 50.0% agreed or strongly agreed with the statement.

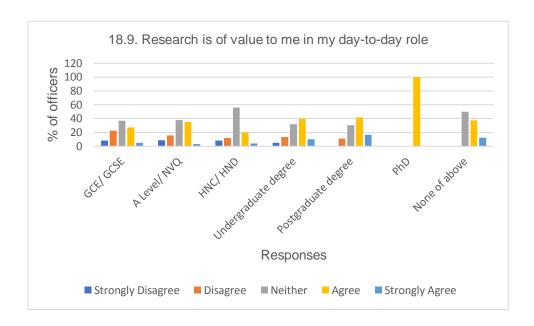


Figure 19. Responses to statement 18.9., by HLAA

23.12. I do not need to know about academic research, just how to use the EBP tactics which come from research

In response to statement 23.12., Figure 20 shows that most officers (41.8%) agreed or strongly agreed that they do not need to know about research, just how to use RBTs. This contrasts with 25.1% of officers who disagreed or strongly disagreed with the statement, and significantly, 33.1% of officers who neither agreed nor disagreed.

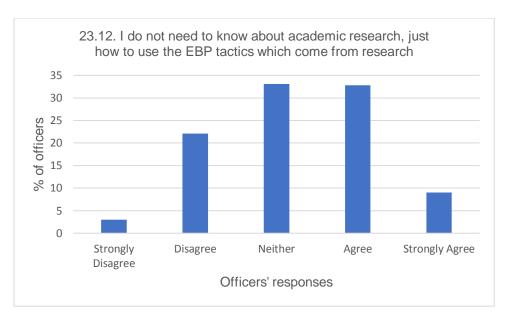


Figure 20. Responses to statement 23.12.

Statistically significant differences were observed between the constables' and sergeants' responses to statement 23.12 (p = .007). Figure 21 shows that 44.3% of constables agreed or strongly agreed with the statement, compared with 32.3% of sergeants. Conversely, 36.9% of sergeants disagreed or strongly disagreed with the statement compared with 22.0% of constables. Significantly, 33.7% of constables and 30.8% of sergeants neither agreed nor disagreed with the statement.

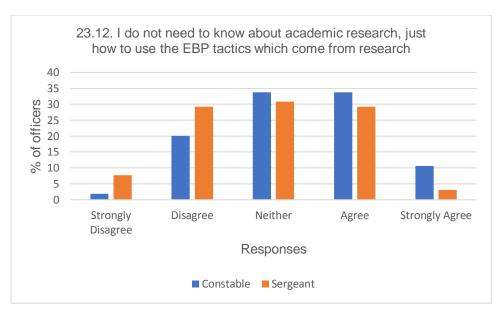


Figure 21. Responses to statement 23.12., by rank

Statistically significant differences were also observed in the statement responses based on HLAA (p = .003). Figure 22 shows that, generally, the higher the HLAA an officer has reached,

the more likely they are to disagree that they do not need to know about academic research. At GCSE/CSE level, 51.6% of officers agreed or strongly agreed with this statement, compared with 48.6% at A-Level/NVQ level, 32.0% at HNC/HND level, 34.7% at UG level, decreasing to 27.8% at PG level, and 50.0% at PhD level. Of those officers without academic qualifications, 62.5% agreed or strongly agreed with the statement.

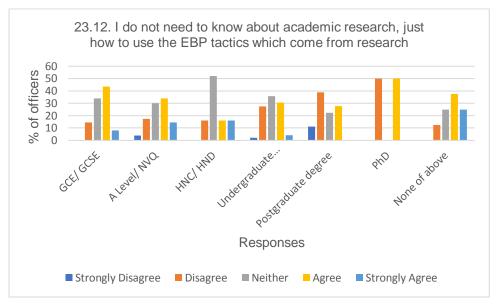


Figure 22. Responses to statement 23.12., by HLAA

4.3.6. Summary of findings relating to Value

Statement 18.9. asked officers to consider the value of research to their everyday role, whilst statement 23.12. asked officers to consider whether they needed to know about the research itself, or just how to use RBTs. When considering the data for both statements together, three main findings emerge. Firstly, sergeants are almost twice as likely as constables to believe that research is of value to them in their role (67.7 % and 36.8% respectively). This suggests that officers view the value of research differently depending on the rank they hold.

Secondly, concerning the need to know that RBTs are effective versus their origin, officers' opinions were divided in three ways. One-third of officers agreed or strongly agreed with this statement, and within this group, it was the constables who agreed more. This suggests that for these constables, the effectiveness of the tactic is more important than the depth of detail provided about the research origin. Conversely, another third of officers disagreed or strongly disagreed with the statement, and it was sergeants who were more likely to disagree. For these sergeants, depth of detail is important, alongside knowledge about the effectiveness of the tactic.

Thirdly, 33.1% of officers from both ranks neither agreed nor disagreed with the second statement (23.12.). Although this is a significant percentage, it is not possible to establish the reason for this response. Several potential explanations for this level of neutrality include a lack of understanding about the wording of the statement; a lack of understanding regarding the value research has within operational policing; or a genuinely neutral position.

As described above, neutral responses may be the result of ambiguous wording. Upon reflection, this may be the case for this statement because it is presented in two parts. An officer may have agreed (or disagreed) with the first part of the statement (I do not need to know about research) and not the second part (just how to use RBTs), or vice versa, thereby causing them to select a neutral position (Sturgis *et al.*, 2014). Neutral responses make it difficult to fully understand the officers' opinions on specific topics because the responses may be shaped by a range of different reasons.

Nevertheless, combining the data from both statements shows generally that sergeants believe research and RBTs have value for their rank and role. Constables are less convinced of the value research holds for their role, primarily believing that they do not need to know about the origins of the research, just how to use the tactics which derive from the research. This may well indicate that constables need to know more than sergeants about *how* to use RBTs in their role.

4.3.7. Receptivity to research – conclusion

This section has reported on the response data and analysis relating to the theme of 'Receptivity to Research' and incorporating the sub-themes of *openness*, *value* and *role*. The findings present a diverse range of officers' opinions towards research in their workplace.

In general, officers from both ranks share some of the strongest opinions on the role of research. Similarly, officers from both ranks share strong feelings towards RBTs, viewing them as tools that they can use in their respective roles (notably, this is less the case for constables). However, sergeants view RBTs as having greater compatibility with their role than constables. For example, concerning *openness*, constables express significantly less interest than the sergeants in carrying out and evaluating research in their workplace.

Similarly, for the *value* statements, significantly fewer constables than sergeants believe that research is of value to them in their day-to-day role. Constables, it appears, do not need to know about research, just how to use the tactics. They are more concerned with the practical

application of research as opposed to the creation of research itself. Sergeants, on the other hand, have a need to know about the research, as well as how to use the tactics, arguably because their role predominantly involves informing and directing constables, and to do so effectively, they must understand at least some of the research behind the tactics.

As has been observed throughout the response data, officers who have achieved higher levels of academic attainment are more open to carrying out and evaluating research in their workplace (the opposite is true for those officers who have achieved lower levels of academic attainment). Officers who are qualified at UG level and above believe that research does have a role to play in their work and they also wish to know additional information about the studies, beyond how to use the tactics which emerge from them. The responses, when considered together for the sub-themes of *openness*, *role* and *value* reveal a clear result: that officers qualified at UG degree are more likely to be receptive to research in their workplace.

4.4. Challenges to Research in Frontline Policing

'Challenges to Research' (RQ₄) was centred on 12 statements aligned to the five sub-themes: suspicion, communication, supervisor, discretion and team. The statements attributed to each sub-theme are presented in Table 8.

Table 8: Statements relating to 'Challenges to Research'

	Suspicion (RQ ₄)
18.6.	I am suspicious of research being carried out by police staff within my
	organisation
23.6.	I am suspicious of research being carried out by external academics within
	my organisation
23.9.	I am suspicious of research being carried out by police officers within my
	organisation
	Communication (RQ ₄)
19.7.	It is important to me to be told why I am being asked to implement EBP tactics
23.14.	I am more likely to use EBP tactics if their purpose has been clearly explained
	to me
23.17.	Access to information is key to their success in the workplace
	Supervisor (RQ ₄)
19.8.	My supervisors are more likely to implement EBP tactics if they are measured
	by performance figures
19.12.	My supervisors are more likely to implement EBP tactics if it is beneficial to
	their promotion prospects
	Discretion (RQ ₄)
18.10.	EBP tactics lessen the opportunity for me to use my discretion
19.14.	I am wary of EBP tactics which control officer discretion
23.8.	The more discretion I am allowed, the more likely I am to implement EBP
	tactics
	Team (RQ ₄)
23.1.	I am more likely to implement EBP tactics if my colleagues are doing so

4.4.1. Suspicion

The statements relating to the sub-theme of *suspicion* were designed to measure levels of suspicion amongst officers towards research and the researcher within the workplace, specifically police staff (18.6.), external academics (23.6.) and police officers (23.9.).

Mann Whitney U tests on the responses to the three statements identified SSDs between both ranks' responses in all three statements (p< .05). Similarly, KW tests also identified SSDs in

responses to the three statements according to HLAA. Across the remaining demographic characteristics of age, ethnicity, gender, sexuality, length of service, role and organisation, no distinct patterns or prominent clusters of SSDs were observed. The bar charts below provide the cross-tabulations for each of the three statements by rank and HLAA, and the sub-theme of *suspicion* where SSDs were also observed.

18.6. I am suspicious of research being carried out by police staff within my organisation³⁵

Figure 23 shows that 52.5% of officers disagreed or strongly disagreed with statement 18.6., compared with 18.5% of officers who agreed or strongly agreed. A significant percentage of officers (29.0%) neither agreed nor disagreed that they are suspicious of police staff carrying out research.

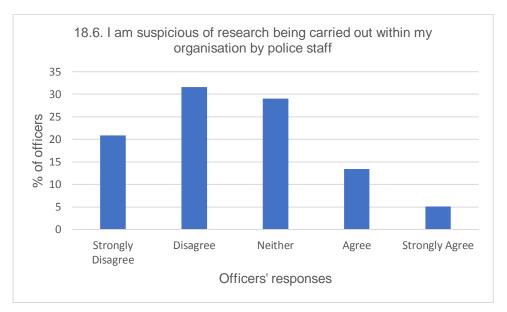


Figure 23. Responses to statement 18.6.

Statistically significant differences were observed by rank in the constable and sergeant responses to this statement (p = .011). Significantly, as shown in Figure 24 below, almost half of all constables (48.1%) and almost three-quarters of sergeants (72.3%) disagreed or strongly disagreed that they were suspicious of research being carried out by police staff. Conversely, constables appear to be more suspicious of research being carried out by police staff when compared with sergeants (20.1% and 12.3% respectively). Almost one-third of constables (31.8%) and 15.4% of sergeants neither agreed nor disagreed with the statement.

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³⁵ Fleming and Brown (2021) define police staff as those staff employed within police forces who are non-warranted or 'non-sworn' and as such, do not carry full police powers, including the power to arrest.

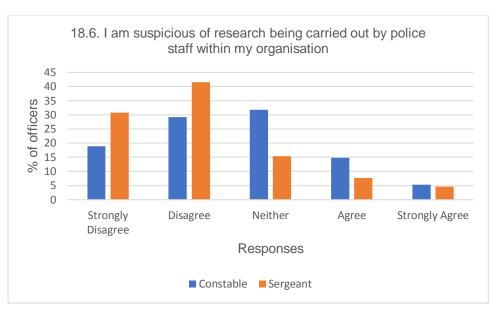


Figure 24. Responses to statement 18.6., by rank

Statistically significant differences were also observed based on HLAA (p = .007). Figure 25 shows that, generally, officers who have achieved a higher level of academic attainment (up to and including UG level) are less likely to be suspicious of research being carried out by police staff. A sharp rise in the level of disagreement with this statement is observable between PG and PhD level (36.1% to 50%). Of those officers with no qualification, 25.0% disagreed or strongly disagreed with the statement compared with 37.1% at GCE/GCSE level, 47.6% at A-Level/NVQ level, 48.0% at HNC/HND level and 66.4% at UG level.

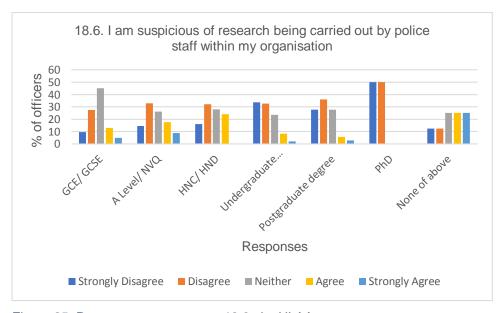


Figure 25. Responses to statement 18.6., by HLAA

23.6. I am suspicious of research being carried out by external academics within my organisation

In response to statement 23.6., Figure 26 shows that officers broadly disagreed with the statement, with 48.0% of officers disagreeing or strongly disagreeing, compared with 24.5% who agreed or strongly agreed. A significant percentage of officers (27.5%) neither agreed nor disagreed with the statement, suggesting a range of views among officers of both ranks.

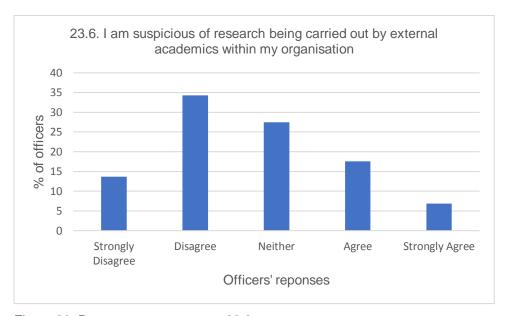


Figure 26. Responses to statement 23.6.

Statistically significant differences were observed between the constable and sergeant responses to this statement (p = .002). Figure 27 below shows that most sergeants disagreed or strongly disagreed with the statement (67.7%) compared with under half of the constables (42.8%). Conversely, 27.6% of constables agreed or strongly agreed compared with 13.8% of sergeants. However, 29.5% of constables and 18.5% of sergeants neither agreed nor disagreed with this statement. For the constables, this represents a significant level of neutrality.

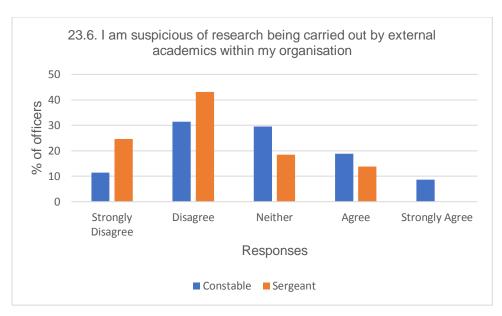


Figure 27. Responses to statement 23.6., by rank

Statistically significant differences were also observed in the responses based on HLAA (p = .001). Figure 28 shows that, generally, the higher the level of academic attainment an officer has reached, the less likely they are to be suspicious of external academics carrying out research. The percentage of officers disagreeing or strongly disagreeing with this statement increases sharply from UG level (62.3%) to PG level (72.2%), extending to 100.0% disagreement at PhD level.

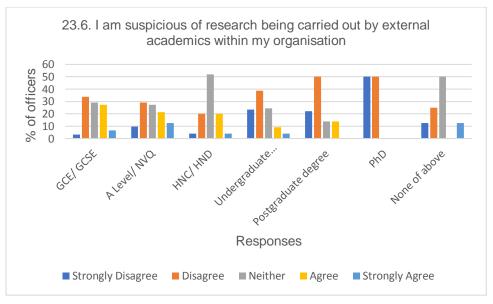


Figure 28. Responses to statement 23.6., by HLAA

23.9. I am suspicious of research being carried out by police officers within my organisation

In response to statement 23.9., Figure 29 shows that 21.8% of officers agreed or strongly agreed with the statement, compared with 49.5% of officers who disagreed or strongly disagreed. However, over one-quarter of officers (28.7%) neither agreed nor disagreed with the statement.

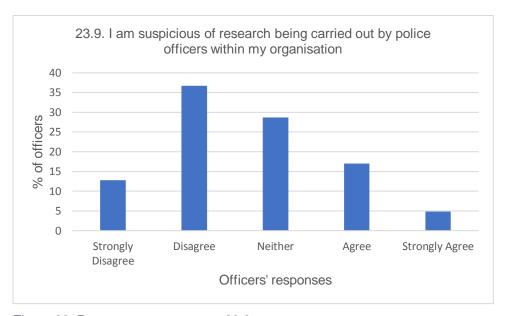


Figure 29. Responses to statement 23.9.

Statistically significant differences were observed by rank, between the constable and sergeant responses to this statement (p = .030). Figure 30 below shows that constables are twice as likely as sergeants to be suspicious of research being carried out by officers within their organisations (25.0% and 10.8% respectively). Almost one-third of constables neither agreed nor disagreed with the statement, compared with around one-quarter of sergeants. Many more sergeants strongly disagreed that they are suspicious of research being carried out by officers (64.7%) when compared with the constables (45.0%).

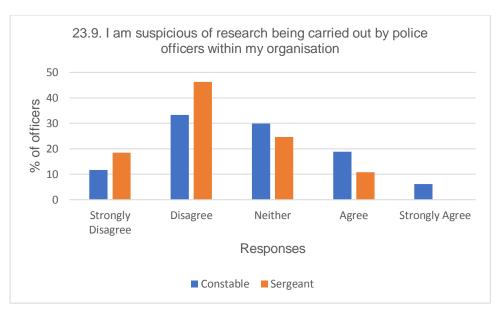


Figure 30. Responses to statement 23.9., by rank

Statistically significant differences were observed based on HLAA (p = .005). Figure 31 shows that the higher the HLAA an officer has reached, the less likely they are to report being suspicious of research carried out by police officers. This level of suspicion decreases considerably amongst those officers who have achieved UG level and above.

In terms of academic level, 32.2% of officers at CSE/GCSE level agreed or strongly agreed with this statement, followed by 25.2% at A-Level/NVQ level, 20.0% at HNC/HND level, 14.3% at UG level, 16.7% at PG level and 0.0% at PhD level. Of those officers reporting no academic qualifications, 6.7% agreed or strongly agreed with the statement.

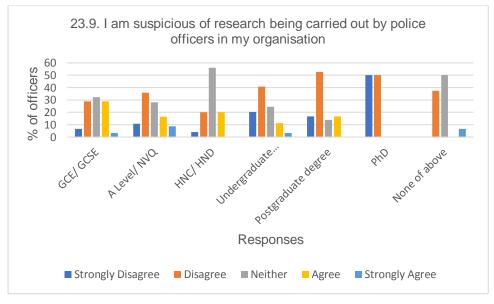


Figure 31. Responses to statement 23.9., by HLAA

4.4.2. Summary of findings relating to Suspicion

When considering the responses to the three statements designed to measure officers' suspicion towards research and the researcher, three main findings emerge. Firstly, both ranks, in general, do not appear to be inherently suspicious of researchers working in their organisation. However, there is a minority of officers who are suspicious of those undertaking research. Constables are generally more suspicious of researchers than sergeants, and the former exhibit the highest levels of suspicion towards research being carried out by police staff (27.6%) and the lowest levels towards external academics (20.1%). Conversely, sergeants display the lowest level of suspicion towards officers carrying out research (10.8%) and the highest level towards police staff (13.8%). Secondly, significant numbers of officers in both ranks neither agreed nor disagreed with the three statements (approximately 30% for constables and 20% for sergeants). Potential explanations for these include officers being unaware that research is being carried out within their organisation; insufficient knowledge to make an informed choice in response to the statements; or simply that officers do not have an opinion about researchers carrying out research within their organisation. Thirdly, regarding suspicion towards research and the researcher, as evidenced in the responses to the three statements, officers with higher HLAA are less likely to report being suspicious of research and the researcher.

4.4.3. Communication

Statements designed to measure the sub-theme of *communication* focused on the importance that officers place upon being told about why they are asked to use EBP tactics (19.7.), a clear explanation of the purpose of the tactic (23.14.), and general access to information on research in the workplace (23.17.).

MWU and KW tests on the responses to the three *communication* statements identified SSDs for only one statement – 23.17. (rank and HLAA). Figures 34 and 35 below present crosstabulations for officers' responses to statement 23.17. by rank and HLAA where SSDs were observed. Data relating to non-SSDs between responses to statements 19.7. and 23.14. based on rank and HLAA is presented in cross-tabulation form in Appendix Sixteen for completeness of results. Across the remaining demographic characteristics of age, ethnicity, gender, sexuality, length of service, role and organisation, no distinct patterns or obvious clusters of statistical significance were observed.

19.7

In response to statement 19.7., Figure 32 shows that officers broadly agreed that it is important to them that they are told about why they are being asked to implement RBTs in the workplace (69.9%). A small percentage of officers disagreed or strongly disagreed with the statement (6.1%) compared with nearly one-quarter who neither agreed nor disagreed with the statement (24.3%).

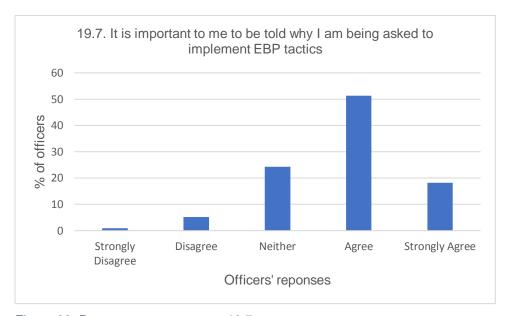


Figure 32. Responses to statement 19.7.

There were no observable SSDs in the responses to this statement based on rank or HLAA. The data does, however, suggest that most officers agree that it is important to them to be told *why* they are being asked to implement RBTs (67.4% for constables and 78.5% for sergeants). Agreement with this statement based on HLAA increases sharply from 71.4% at UG level to 83.3% at PG level and up to 100.0% at PhD level.

23.14. I am more likely to use EBP tactics if their purpose has been clearly explained to me

In response to statement 23.14., Figure 33 below demonstrates that 81.0% of officers agreed or strongly agreed that they are more likely to use RBTs when their purpose has been explained, compared with 2.6% who disagreed or strongly disagreed. A relatively small percentage also neither agreed nor disagreed with the statement (16.4%).

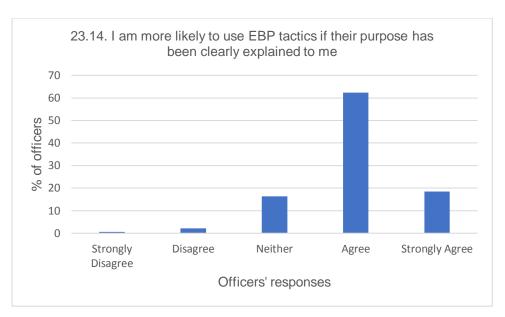


Figure 33. Responses to statement 23.14.

There were no SSDs in the responses to this statement based on rank or HLAA. Both ranks agreed or strongly agreed that they are more likely to use RBTs if their purpose has been explained clearly to them (78.8% constables and 89.2% sergeants). Officers who have reached an HLAA of between GCSE/CSE and HNC/HND level also mainly agreed with the statement, and those qualified to UG level and above are more likely to agree or strongly agree.

23.17. Access to information on EBP tactics is key to their success

In response to statement 23.17., Figure 34 below shows that a significant percentage of officers agreed or strongly agreed that access to information on RBTs is key to their success in the workplace (48.1%), and a small percentage of officers disagreed or strongly disagreed with the statement (8.1%). An equally significant percentage of officers neither agreed nor disagreed with the statement (43.9%).

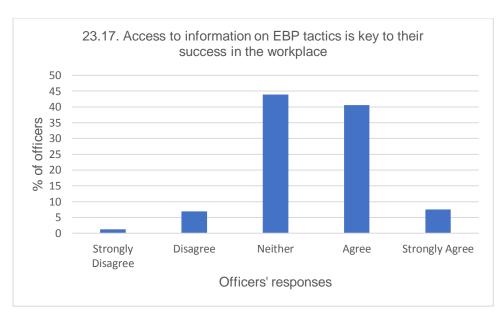


Figure 34. Responses to statement 23.17.

Statistically significant differences were observed between the constable and sergeant responses to the statement (p = .028). Figure 35 shows that 46.2% of constables agreed or strongly agreed with the statement, compared with 55.4% of sergeants. Constables were more likely to disagree or strongly disagree (9.8% and 1.5% respectively). Significantly (given the level of neutrality) 43.1% of sergeants and 43.9% of constables neither agreed nor disagreed with the statement.

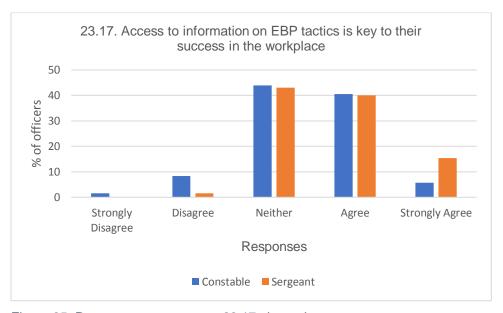


Figure 35. Responses to statement 23.17., by rank

Statistically significant differences were also observed between the officers' responses to this statement based on HLAA (p = .017). Figure 36 below shows that as HLAA increases, officers

are more likely to agree that access to information on RBTs is key to their success in the workplace. Of the officers reporting no academic qualifications, 37.5% agreed or strongly agreed with the statement. At GCE/GCSE level, 35.5% of officers agreed or strongly agreed with this statement, compared with 38.9% at A-Level/NVQ level and 40% at HNC/HND level. The percentage of officers agreeing or strongly agreeing with the statement increases significantly from UG level (60.2%) to 66.7% at PG level and up to 100.0% at PhD level.

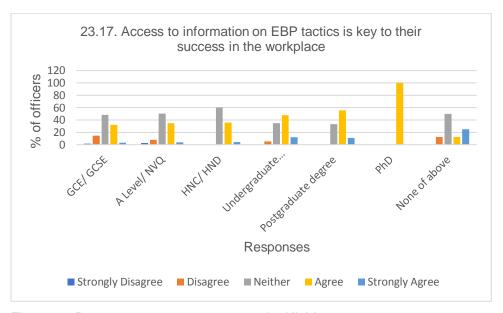


Figure 36. Responses to statement 23.17., by HLAA

4.4.4. Summary of findings relating to Communication

Two key findings emerge when examining the data from the three statements designed to measure officers' opinions about research communication in the workplace. Firstly, there were no SSDs between the constable and sergeant responses to the first two statements (communication of reasons for using RBTs and the purpose of such tactics), and similarly, when considered in the context of HLAA. Officers, irrespective of rank, were in a collective agreement that effective communication regarding both the *use* and *purpose* of RBTs would be more likely to result in a greater uptake of EBP tactics. However, both ranks showed a stronger level of opinion regarding their increased use of EBP tactics when the *purpose* had been explained (78.8% constables and 89.2% sergeants), compared with an explanation of why they were being asked to use the tactics (67.4% constables and 78.5% sergeants). This suggests that it might be more important for officers to have the purpose of tactics clearly explained, as opposed to only being informed about why they are being asked to use them. Secondly, sergeants tended to agree with all three statements to a greater extent than the

constables. This suggests that it is more important to sergeants, as well as to officers qualified to higher academic levels, that they understand the purpose of the tactic, as well as its use.

4.4.5. Supervisor

The statements relating to the sub-theme of *supervisor* asked officers to give their opinion of whether supervisors would be more likely to implement RBTs if measured by performance figures (19.8) or if beneficial to their promotion prospects (19.12).

Mann Whitney U tests on the responses to both statements identified no SSDs between responses based on rank (p<.05). Similarly, KW tests identified no SSDs between officers' responses based upon HLAA. Data relating to non-SSDs between responses to statements 19.8. and 19.12. based on rank and HLAA is presented in Appendix Sixteen for completeness of results. Across the remaining demographic characteristics, there were no observable distinct patterns or obvious clusters of statistical significance.

19.8. My supervisors are more likely to implement EBP tactics if they are measured by performance figures

In response to this statement, Figure 37 shows that officers were generally in agreement that supervisors are more likely to implement RBTs when measured by performance figures. It shows 53.7% of officers agreed or strongly agreed with the statement, compared with 14.6% who disagreed or strongly disagreed and 31.7% neither agreed nor disagreed.

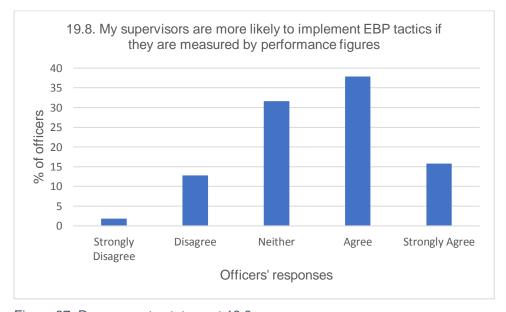


Figure 37. Responses to statement 19.8.

No SSDs were observed in the responses to this statement based on rank or HLAA. Approximately half of constables and sergeants agreed or strongly agreed with the statement (54.5% and 49.2% respectively). Officers qualified to UG level and below shared similar levels of agreement (approximately 50%) and those who had attained PG level and above tended to agree more (63.9%).

19.12. My supervisors are more likely to implement EBP tactics if it is beneficial to their promotion prospects

In response to statement 19.12., Figure 38 shows that 65.6% of officers agreed that police supervisors are more likely to implement RBTs if they are beneficial to their promotion prospects, compared with 9.9% who disagreed or strongly disagreed. Significantly, given the level of neutrality, 35.2% neither agreed nor disagreed with the statement.

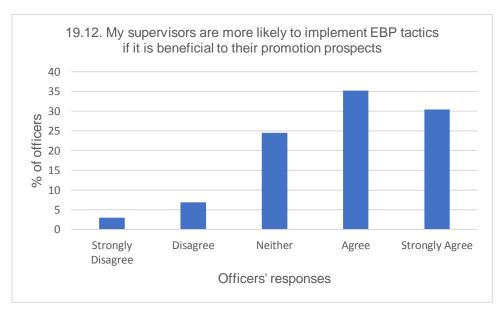


Figure 38. Responses to statement 19.12.

No SSDs were observed in response to this statement based on rank or HLAA. In terms of rank, 31.4% of constables agreed with the statement compared to 29.2 % of sergeants. Concerning HLAA, officers qualified to UG level and below shared similar levels of agreement with the statement (around 65%), and those attaining PG level and above tended to agree more significantly (over 83%).

4.4.6. Summary of findings relating to Supervisor

The data on officers' responses to the two statements assessing their opinions about supervisors' use of RBTs demonstrates a broad agreement that supervisors are more likely to use RBTs either when they are beneficial to promotion or when they measure performance. In both cases, constables agree more strongly than sergeants (though only marginally), and both ranks felt more strongly towards the statement which focused on the use of RBTs as beneficial to promotion, as opposed to performance measurement. Whilst the combined data shows general agreement between officers to both statements (around 50% of officers agreed with performance measurement, rising to above 60% for promotion prospects), a significant percentage of officers from both ranks neither agreed nor disagreed with the statement (30% for performance measurement and 25% for promotion prospects). Moreover, higher levels of educational attainment are linked with an increased tendency to agree with the statements, with the strongest agreement notably demonstrated by officers with PG qualifications (above 83%).

4.4.7. Discretion

Statements relating to the sub-theme of *discretion* asked officers to consider whether EBP tactics lessen the opportunity for use of discretion (18.10.), whether they are wary of EBP tactics which control officer discretion (19.14.), and whether they would be more likely to use EBP tactics if they afforded a greater use of discretion (23.8.).

Mann Whitney U tests on the responses to the three statements identified one SSD between both ranks' responses relating to statement 19.14. (p<.05). Kruskal-Wallis tests identified no SSDs between responses to the three statements based on HLAA. Figure 41 below presents the cross-tabulation for officers' responses to statement 19.14. by rank where an SSD was observed. Data relating to non-SSDs between responses to statements 18.10. and 23.8., based on rank and HLAA, is presented in Appendix Sixteen for completeness of results. Across the remaining demographic characteristics, no distinct patterns or obvious clusters of statistical significance were observed.

18.10. EBP tactics lessen the opportunity for me to use my discretion

In response to statement 18.10., Figure 39 shows that 28.9% of officers agreed or strongly agreed with this statement, compared with 24.6% who disagreed or strongly disagreed. A

significantly high percentage of officers neither agreed nor disagreed with the statement (46.5%).

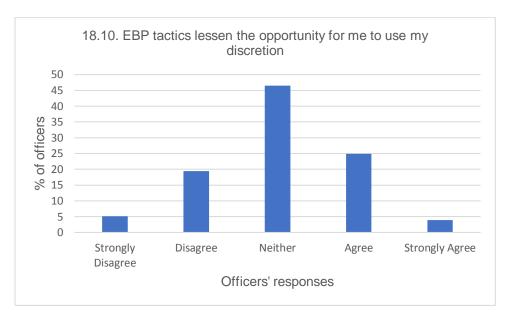


Figure 39. Responses to statement 18.10.

No SSDs were observed in the responses to this statement by rank or HLAA. Constables were more likely to agree or strongly agree with the statement (33.7%) compared with sergeants (9.2%). Conversely, sergeants were more likely to disagree or strongly disagree (49.2%) compared with constables (18.6%). Officers qualified at UG level and above tended to disagree or strongly disagree with the statement more than officers who had reached a lower level of academic attainment.

19.14. I am wary of EBP tactics which control officer discretion

In response to statement 19.14., Figure 40 shows that 43.8% of officers agreed or strongly agreed with the statement, compared with 19.4% who disagreed or strongly disagreed. Significantly, just over one-third of officers (35.2%) neither agreed nor disagreed.

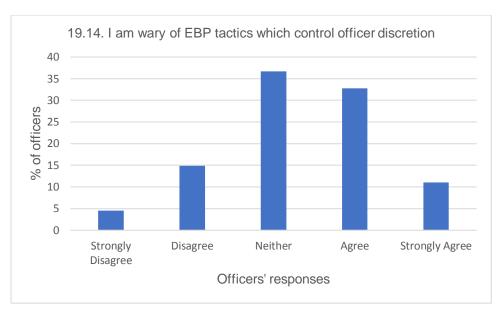


Figure 40. Responses to statement 19.14.

Statistically significant differences were observed between the constable and sergeant responses to statement 19.14 (p = .035). Figure 41 below shows that just under half of constables (46.6%) agreed or strongly agreed with the statement compared with 30.8% of sergeants. Just over one-third of officers neither agreed nor disagreed with the statement, whilst 30.7% of sergeants disagreed or strongly disagreed, compared with 16.7% of constables.



Figure 41. Responses to statement 19.14., by rank

There were no SSDs in the responses to this statement by HLAA. Generally, a higher level of academic attainment was linked to a decrease in the tendency to agree with the statement.

In response to statement 23.8., Figure 42 below shows that 43.8% of officers agreed or strongly agreed that the more discretion they are afforded, the more likely they are to implement RBTs. This contrasts with 13.7% of officers who disagreed or strongly disagreed. Significantly, 42.6% of officers neither agreed nor disagreed with the statement.

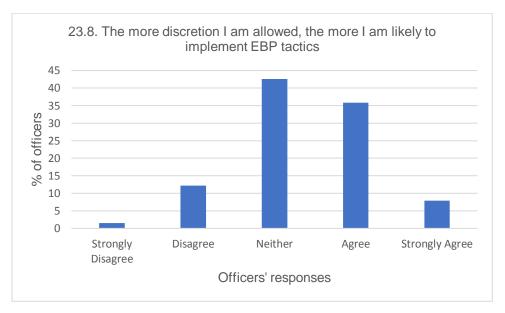


Figure 42. Responses to statement 23.8.

There were no SSDs in the responses to this statement based on rank or HLAA. However, of those officers who agreed or strongly agreed with the statement, a higher proportion were of constable rank (44.3% compared with 38.0%) and conversely, a higher proportion of sergeants disagreed (21.5% compared with 11.7%).

4.4.8. Summary of findings relating to *Discretion*

When considered together, the responses to the three statements designed to measure officers' opinions towards research, RBTs and use of discretion yield two findings. Firstly, the data suggests that around one-third of constables believe RBTs lessen the opportunity for them to use discretion, and they are also wary of RBTs which control this. Sergeants do not generally believe RBTs will lessen the opportunity for discretion, but approximately one-third are suspicious of RBTs which control discretion. Furthermore, sergeants are more likely to agree that the more discretion such tactics afford, the more likely officers are to use them. Despite these numbers, a significant percentage of officers in both ranks were neutral in their responses to all three statements (around 40% for each). As has been previously discussed,

there may be several reasons for this, including genuine neutrality and a lack of knowledge about the topic.

4.4.9. Team influence

Within this section, the statement related to the sub-theme of *team* asked officers to consider the influence of the team on their adoption of RBTs.

23.1. I am more likely to implement EBP tactics if my colleagues are doing so

Mann Whitney U tests on the responses to this statement identified no SSDs between both ranks' responses (*p*< .05). Similarly, KW tests identified no SSDs between the officers' responses to the statement based upon HLAA. Data relating to these non-SSDs between responses to statement 23.1. is presented in cross-tabulation form in Appendix Sixteen for completeness of results. Across the remaining demographic characteristics, no distinct patterns or obvious clusters of statistical significance were observed.

In response to statement 23.1., Figure 43 shows that 78.4% of officers agreed or strongly agreed with the statement, compared with only 1.8% who disagreed or strongly disagreed. Nearly one-fifth of officers neither agreed nor disagreed with the statement (19.8%).

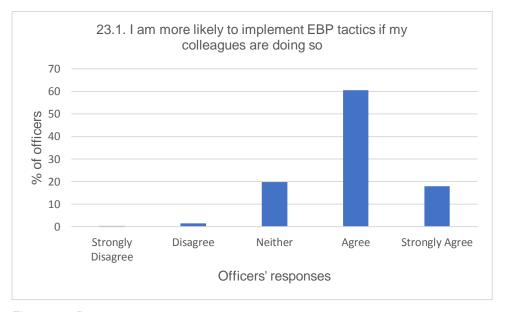


Figure 43. Responses to statement 23.1.

As described, there were no SSDs in the responses to this statement based on rank or HLAA. Constables tended to strongly agree or agree more so than sergeants (79.1% and 75.4%

respectively). Officers were more likely to agree with the statement if they held qualifications at UG level and above.

4.4.10. 'Challenges to Research' - conclusion

This section has provided the survey response data and analysis relating to the theme of 'Challenges to Research' and its five associated sub-themes of *suspicion*, *communication*, *discretion*, *supervisor* and *team*. The findings show that officers hold a range of opinions about the barriers to research.

Officers share the strongest opinions towards the statements concerning *suspicion*, *communication*, *supervisor* and *team*, and this is irrespective of rank. For *communication*, officers believe that communication regarding the purpose of RBTs is likely to increase the use of such tactics. It is apparent that for most officers, regardless of rank, effective communication and explanation of the research and the purpose of RBTs are of crucial importance to them. Equally, rank does not divide the officers in terms of their opinions towards the identity and role of the researcher. Officers are generally not suspicious of research being carried out in their workplace. However, of those officers who are suspicious, marginally more are constables (rather than sergeants), and their suspicion is directed towards police staff and external academics. Sergeants' suspicion is concentrated more on research carried out by officers than by external academics.

For most officers, the use of tactics by their team is likely to encourage them to use RBTs, suggesting that research implementation might be best achieved as a team endeavour. The notion of team appears to have resonance across the ranks – both are in agreement – indicating that research use as a team effort is compatible with the role of a police officer, rather than the rank that is held. Similarly, the notions of 'performance measurement' and 'promotion prospects' as supervisors' motives for using RBTs also prevail across the ranks. This agreement also suggests an understanding of research within the role of an officer as opposed to the rank of the officer; in other words, the opinion is uninfluenced by rank. However, officers do not agree about the influence that RBTs might have on their use of discretion, and constables are warier of RBTs that control discretion. Sergeants do not believe that RBTs will lessen their ability to use discretion, but they are wary of tactics that do.

As has been observed throughout the response data, officers who have achieved higher levels of academic attainment are less likely to be suspicious of research and the researcher. They are more likely to support the need for effective communication about the purpose of RBTs as

well as the idea that research tactic usage should be a team endeavour. Overall, when the responses are analysed together around the sub-themes, the clear finding emerges that officers qualified at UG degree and above are less likely to identify barriers to the use of research in their workplace.

4.5. Conclusion

This chapter has discussed the survey data and subsequent analysis for the quantitative strand of this study. The data and its analysis have been structured using the two main themes: 'Receptivity to Research' (which seeks to address RQ₁ to RQ₃) and 'Challenges to Research' (which seeks to address RQ₄). The analysis reveals that there are differences of opinion across the ranks regarding research and that these are inextricably linked to the function of the rank, and to a lesser extent HLAA an officer has achieved.

The following chapter (Chapter Five) presents the results and analysis from the qualitative strand of the study using QM. Whilst this chapter follows the structure of a traditionally formatted QM analysis section, the data is nevertheless organised around the study's themes and associated sub-themes to allow for consistency in presentation and ease of reading.

Chapter Five: Q-methodology Results and Interpretation

5.1. Introduction

This chapter presents the results obtained during the qualitative strand of this study which used Q-methodology (QM). It follows a typical QM chapter structure (Watts and Stenner, 2012). Analysis of the data from this strand revealed six distinctive viewpoints (three from sergeants and three from constables) when participants were asked to consider the central Q question:

'What place does police academic research have within frontline policing?'

Firstly, the factor array for each viewpoint is presented (as a compostite Q-sort), followed by a full interpretation of the factor. Each interpretation is focused on the two central themes: 'Receptivity to Research' and 'Challenges to Research'. For the first theme, responses to the Q-statement items (henceforth referred to as statements) relate to the three sub-themes of *openness*, *role* and *value*. For the second theme, responses to the statement concern the five sub-themes of *suspicion*, *communication*, *supervisor*, *discretion* and *team*. When interpreting the factor array for each factor, it is the 'gestalt' or the whole of the completed Q-grid which is considered important (Watts and Stenner, 2005).³⁶

5.2. Analysis and Factor Interpretations – Sergeants

The following section provides a full factor interpretation for each of the three distinctive sergeant viewpoints, identified by the factor arrays. These distinctive viewpoints are assigned the following typology names: Pragmatist (Factor 1), Traditionalist (Factor 2) and Receptive sergeants (Factor 3). Each factor array is presented on a Q-sort grid and the characteristics of each viewpoint are discussed in turn.

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³⁶ Individual Q item statements ought not to be separated and interpreted individually since it is the sum of the parts, or the sum of the positioning of each statement, which when combined together, give strength to the interpretation of the shared viewpoint of the factor as a whole (Herrington and Coogan, 2011).

5.2.1. Sergeants' sample

This study involved 26 sergeant participants and used a Q-set comprised of 48 statements. This ratio satisfies Watts and Stenner's (2012) recommendation of using fewer participants than the number of Q-set items. Table 9 shows the number of sergeants who took part in the Q-sorting process, by their respective forces.

Table 9: Q-sort sergeant participants, by force

	n	% of total participants
Force 1	0	0
Force 2	10	38.5
Force 3	9	34.6
Force 4	7	26.9
Total	26	100.0

5.2.2. Analysis of sergeants' Q-sorts

The 26 sergeants' Q-sorts were intercorrelated and subjected to a by-person or by-Q-sort factor analysis using the dedicated computer package PQMethod (Schmolk, 2018). Initially, the analysis revealed a solution of four factors. On closer inspection, three of the factors were found to have eigenvalues greater than 1.00, thereby satisfying the Kaiser-Guttman criterion for identifying those factors with sufficient statistical strength and explanatory power (Watts and Stenner, 2012, p.105). A fourth factor with an eigenvalue of 0.2563 was subsequently discarded because it was less than 1.00. These three factors together explained 46% of the total study variance, providing fulfilment of the criterion necessary for a sound factor solution, where a total study variance in the region of 35–40% is deemed acceptable (Kline, 1994). Of the 26 Q-sorts, 16 loaded significantly on one or more of these three factors. Factor loadings exceeding \pm 0.38 were significant at p < 0.01. The three extracted factors also provided three distinguishable viewpoints upon which to base full interpretation. The descriptive statistics for the final three-factor solution are presented in Table 10.

Table 10: Descriptive information for the three factors resulting from Q analysis

Factor	Number of people loading on factor	Eigenvalue	Variance iigenvalue explained (%)		SE for factor Z-scores
1	7	7.9934	31	0.966	0.186
2	4	2.6670	10	0.941	0.243
3	5	1.4181	5	0.952	0.218
Total	16		46		

5.2.3. Sergeants' factor arrays

Factor rotation generated three-factor arrays, shown in Appendix Ten. Each factor array gives the score attributed to each statement item. Of the 48 statement items, 11 were consensus items, i.e. those whose rankings did not distinguish between any pair of factors (the difference of score being noted as 2; Watts and Stenner, 2012, p.218). These items are shaded in grey in Appendix Ten.

A closer examination of these consensus statements identified four general groupings related to the research sub-themes. The first grouping was associated with the sub-theme of *suspicion* (statements 4, 15 and 20) and presented the view that sergeants were generally not suspicious of police staff and academics carrying out research within their organisation. The second related to the sub-theme of *communication* (statements 8, 32 and 43) and represented the view that communication relating to research involvement was important to all three viewpoints. The third grouping focused on the sub-theme of *team* (statements 30, 35 and 48). This demonstrated the shared view that team acceptance and genuine support from senior managers are likely to be of some importance to sergeants. The fourth related to the sub-theme of *openness* (statements 25 and 26) and presented the shared view that sergeants are generally open to using RBTs but are less convinced of their helpfulness to their role.

Despite the 11 consensus items having rankings which do not distinguish between any pair of factors, they have not been removed from the three, full factor interpretations because they provide useful insights into the shared viewpoint of the whole group (Watts and Stenner, 2012, p.218). The following section, therefore, provides full factor interpretations for each of the three sergeants' viewpoints.

5.2.4. Interpretation of Factor 1 - the Pragmatist sergeant

"... a person who is guided more by practical considerations than by ideals." 137

Factor 1 has an eigenvalue of 7.99 and represents 31% of the study variance. Seven police sergeants were associated with this factor, six males and one female. Of the seven sergeants, four were from Force 2, two from Force 3 and one from Force 4. Five officers had achieved HLAA at A-Level, with the two remaining officers holding postgraduate qualifications. In terms of officers' ages, six of the seven officers were aged 35 to 44 years. Five out of seven officers had more than 15 years of service, and the remaining two had between 8 and 15 years of service. Three officers were employed in an emergency response role and the other four were from a community policing role.

Shown below is the factor array for a Pragmatist sergeant. It is a composite of the individual Q-sorts from the seven sergeants who shared this viewpoint.

	•	•							•	•
-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
28	4	11	14	6	9	5	1	3	8	2
29	23	13	20	7	16	18	10	17	12	41
(2)	33	15	24	27	22	30	25	21	19	(2)
	(3)	39	37	31	26	36	44	45	(3)	-
		(4)	46	31	34	42	47	(4)	-	
			(5)	38	35	48	(5)			
				(6)	40	(6)	•			
					43					

'What place does police academic research have within frontline policing?'

Figure 44. Factor array for sergeants - Factor 1.

5.2.4.1. 'Receptivity to research'

In the first instance, the Pragmatist sergeants are open to using tactics which come from academic research (25: +2). They believe that RBTs are of *some* value to them in their day-to-day role (5: +1) and disagree that research has no real value when dealing with everyday policing incidents (39: -3). However, although they are open to research, they are not entirely

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³⁷ (Oxford University Press, 2020b)

convinced of its value. Additionally, they are unconvinced as to whether officers should be expected to use RBTs in their role (22: 0) and equally about whether they are helpful to them in their role (26: 0).

Despite being unsure about the helpfulness of RBTs, they do believe that research has some role to play in frontline policing (46: -2). Nevertheless, this view is tempered by the perception that research should not drive all frontline practices (29: -5), exemplified in their exit comments:

'Policing is complex and should not be driven by one factor.'

'Don't believe research should drive practices as each incident is unique, and what works for one, won't work for another.'

For these sergeants, how they view the value of research is tied firstly to the belief that policing incidents are 'complex' and 'unique', and secondly, to the greater value placed on operational experience and knowledge. They remain unconvinced that there is a real need for research that supports frontline officers in what they do (27: -1):

'It should be from previous experience, knowledge and general day-to-day policing.'

They do tentatively agree that officers have time to *take part* in research within their daily role (42: +1), but not to carry out the research themselves (18: +1), especially given the operational demands placed upon them:

'Frontline officers are swamped. Expecting them to do research too would be excessive.'

'Operational demand and ongoing enquiries reduce ability to conduct research.'

In general, Pragmatist sergeants believe that policing is a craft, not a science (1: +2):

'Dealing with incidents gives you the best practice rather than research. 'ON THE JOB'.'

They also place value on experiential learning, with learning from research viewed as less valuable to them in practice, and firmly believe that operational experience is more beneficial than RBTs (2: +5) where officers simply "get" what is needed to be done':

'Operational experience most valuable, more effective than RBTs.'

'Good police officers are natural to the role and "get" what is needed to be done.'

These sergeants strongly disagree that frontline police tactics are outdated (28: -5):

'Police tactics of old still work - "tried and tested".'

'Tactics are not outdated: they develop with time [and] experience.'

They also strongly feel that their current tactics do have 'research' evidence to support their use (33: -4). However, the evidence they refer to are the traditional forms of police evidence such as intelligence:

'We use research/intel/past experience all of the time.'

5.2.4.2. 'Challenges to research'

The Pragmatist sergeants are generally not suspicious of research being carried out by police staff (4: -4) or external academics within their organisation (15: -3):

'Don't have any issues with external agencies conducting research – practices are already in place.'

However, when reflecting further upon the place of external academic researchers in policing organisations, they are less convinced that they are the best-equipped people to carry out the job (24: -2):

'External researchers need policing experience.'

'Don't approve of external academics who have no real police experience affecting policy and procedure.'

So, whilst they are not suspicious of external researchers per se, they believe that real-world experience of policing is vital, and they strongly believe that officers of all ranks should be involved in research (23: -4):

'Because I feel that police officers are best placed to carry out research in their role.'

Although this appears to contradict their opinion that officers are too time-pressured to carry out research themselves (18: +1), they are in fact expressing the view that it is officers who are best placed to carry out research, given their experience of the role. However, in practice in an operational environment, this is not necessarily possible. Thus, for these sergeants, research is 'good in theory' but is not necessarily practical or realistic in a frontline role.

These sergeants feel strongly about the value of communication and the need to be informed about why they are being asked to use RBTs (8: +4). As officers and supervisors, they also firmly believe that staff are more likely to use RBTs if their purpose has been clearly explained (19: +4). This suggests that officers' adoption of research may be enhanced through effective communication. Similarly, they feel that officers should know if they are being used to carry out research within their organisation (32: -1). However, as sergeants focused on the practical aspects of the role, they do not necessarily care about the research origins of the tactics, just that they are effective in helping them in their role (41: +5):

'I personally don't care who comes up with an idea to help me, only that it helps [the] public/victims etc.'

'Whatever tactics used and where they originate from are not important as long as [they are] effective.'

These sergeants believe that officers do not need to know the full details of academic research, just that the tactics help them in their role (43: +2). They also perceive that communication of research purpose and rationale for RBT use is important.

The sergeants are not daunted by RBTs when considered alongside their ability to use discretion in their work. They are not wary of tactics that control discretion (11: -3) and are unconvinced that allowing more discretion would increase the use of such tactics (16: 0). They also believe that RBTs do not lessen the opportunity to use their discretion (6: -1). However, they feel that from a practical perspective, the decisions they and their constables make in

policing situations should not be *controlled* by RBTs (36: +1). For them, research is not a barrier to the use of discretion, arguably because they do not necessarily value their discretion above other policing skills (37: -2).

Pragmatist sergeants hold the view that supervisors are more likely to implement RBTs if this is beneficial to their promotion (10: +2). They believe that promotion is more likely to be a motivating factor than the use of tactics as part of a performance management regime (9: 0). They also acknowledge that they themselves would make more use of RBTs if it aided their promotion prospects.

In terms of the team, these sergeants recognise the importance of the relationship between supervisors and staff in implementing RBTs, believing that officers are more likely to use them if they are genuinely supported by their supervisor (21: +3). Similarly, they assert that officers are more likely to use RBTs when their colleagues are doing so (12: +4), describing this as 'buy-in':

'Officers are more likely to pick up [and] use new tactics if colleagues are and if they see them working ("culture").'

'Officers are more likely to buy-in if peers and immediate supervision buy-in.'

5.2.5. Interpretation of Factor 2 - the Traditionalist sergeant

'... an advocate of maintaining tradition, especially to resist change.'38

Factor 2 has an eigenvalue of 2.67 and represents 10% of the study variance. Four officers were associated with this factor, three males and one female. Three of the four officers reported 15 or more years of service, and the remaining officer reported between 2 and 8 years of service. Traditionalist sergeants were evenly spread across emergency response roles and community policing roles and were equally split between Force 3 and Force 4. There were no officers from Force 2 associated with this factor. Officers' ages ranged from 25 to 54 years, with an even distribution across four age categories (one officer in each category). Within this group, one officer reported their HLAA as being at GCSE/CSE level, one at A-Level, one at HND/HNC level and one at undergraduate level.

³⁸ (Oxford University Press, 2020c)

Shown below is the factor array for a Traditionalist sergeant. It is a composite of the individual Q-sorts from the four sergeants who shared this viewpoint.

	,								,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
31	7	22	4	3	9	1	10	11	2	18
42	15	28	5	17	13	12	6	16	36	41
(2)	29	38	20	23	14	19	8	25	37	(2)
	(3)	46	27	32	24	21	40	39	(3)	4
		(4)	34	33	26	30	45	(4)	_	
			(5)	47	43	35	(5)			
				(6)	44	(6)	u.			
					48					
					(8)	1				

'What place does police academic research have within frontline policing?'

Figure 45. Factor array for sergeants - Factor 2.

5.2.5.1. 'Receptivity to research'

The Traditionalist sergeants are *open* to using new tactics which come from academic research (25: +3). However, although they are seemingly open to RBTs, they are unconvinced that they are of any real help to them in their role (26: 0). They strongly believe that research should not drive all frontline practices (29: -4). Furthermore, they view policing as something which develops through experience and as too complicated to 'apply a formula':

'Policing is still developed over years, not something that can be developed out of research.'

'Not all policing can be academically driven. It is too complex to apply a formula.'

These sergeants also believe that there is no real need for research which supports frontline officers in what they do (27: -2). Furthermore, they do not feel that research should play a more significant role in deciding which tactics are used (34: -2) because they view research as something which adds complication:

'Sometimes policing has become overcomplicated by research.'

However, they *do* believe research has someplace in frontline policing (46: -3) but not on the 'frontline' as such. They explain that this is a 'behind the scenes' role, helping to shape policies and procedures *for*, but not *on* the frontline. Accordingly, research should not drive all frontline practices (29: -4).

Predictably, the Traditionalist sergeants do not believe research is of value to them in their day-to-day role (5: -2). Likewise, they also feel that research has no real value when dealing with everyday policing incidents (39: +3) and that operational experience is more valuable than RBTs (2: +4). This is particularly the case when dealing with '24/7 incidents', such as domestic violence (DV), where research is viewed as unhelpful. At the same time, they also discussed the possibility of whether extremely complex incidents could be at least partially resolved using research-based methods (14: 0):

'Every incident is different as people and officers are not robots. Officers have to read a situation quickly and adapt to it.'

'Research-based methods can make suggestions re: best practice but the decisions must ultimately be based on human factors.'

So, whilst Traditionalist sergeants accept that research *could* play a part in resolving *some* incidents, for example in terms of identifying best practices, they also believe that it cannot replace officer decision-making on the ground. These sergeants support the traditional rhetoric that real police work is about responding to situations quickly, not waiting for research results to come to fruition (40: +2).

5.2.5.2. 'Challenges to research'

Despite showing resistance towards research in practice, Traditionalist sergeants are not inherently suspicious of external academics conducting research within their organisation (15: -4):

'I have no suspicions re: academics conducting research, as long as [it's] not on behalf of a think tank.'

This suggests that external researchers are likely to be accepted by these sergeants on the proviso the research is for internal use only. Similarly, they are generally not suspicious of

police staff carrying out research in their organisation (4: -2) but hold a degree of suspicion towards officers undertaking this practice (7: -1).39

These sergeants feel most strongly that officers do not have time to take part in research themselves (18: +5) and equally that officers, themselves included, do not have time to participate either (42: -5):

'24/7 response are too busy to complete research.'

'Research is time-consuming: officers have no time to do it while at work.'

Operational demand and lack of time to take part in or evaluate research is a significant and practical challenge for these sergeants.

When considering communication, these sergeants believe it is of some importance to be told why they are being asked to use such tactics (8: +2) and equally so, where they are being used to carry out research (32: -1). They recognise that officers are more likely to use such tactics if their purpose has been clearly explained (19: +1). However, they do not need to know about the origins of the tactics, just that they are effective in helping them (the sergeants) in their role (41: +5):

'If a tactic works, its' origin if unknown will not matter.'

Generally, these sergeants believe that officers only need to know about tactic use and effectiveness. This could be understood as an assertion of control over what their constables do or do not need to know, based on their own beliefs. However, the Traditionalist sergeants also strongly hold the view that officers should not use RBTs when told to do so by a senior officer without question (31: -5):

'A tactic may be unlawful or inappropriate for a community.'

'By being told to do such may result in the officer not giving full commitment.'

³⁹ Whilst viewing serving officers carrying out research suspiciously, the Traditionalist sergeants are likely to have viewed my insider 'police' position, in conjunction with a university affiliation as a positive, thus adding further credibility to my position as the researcher.

'Officers are adults and do not need to be told to do something without explanation.'

The Traditionalist sergeants believe that RBTs lessen the opportunity to use discretion and they are wary of tactics which control this (11: +3). This is unsurprising given the value they place upon their own ability to use discretion above all other police officer skills (37: +4):

'The office of constable requires that each officer is an autonomous body with discretion to use powers. Any erosion of this discretion would be an erosion of the office and turn it into "just a job".

These sergeants feel much more strongly about this than the Pragmatist and Receptive sergeants, and firmly believe that officer decision-making should not be controlled by RBTs (36: +4):

'Discretion/experience overrules research.'

'Officers must be allowed to make decisions based on what is in front of them – not what research tells them to do.'

Somewhat unsurprisingly, they also believe that the more discretion RBTs offer, the more likely they are to be used by officers, themselves included (16: +3). For these sergeants, RBTs which curb officer discretion, or give the appearance of doing so, may hinder the broader use of the tactic or research.

Like the Pragmatist sergeants, Traditionalists believe that supervisors are more likely to implement RBTs if doing so is beneficial to their promotion prospects (10: +2). However, unlike the Pragmatist sergeants, they do not believe supervisors would use RBTs more if measured by performance figures (7: -4). This suggests that these sergeants are not necessarily motivated by performance measures:

'Another KPI is not what policing needs.'

Finally, the Traditionalist sergeants assert that officers will use tactics if they are genuinely supported by their supervisor (21: +1) and senior managers (35: +1). They also believe that officers are more likely to use such tactics when they see their colleagues using them (12: +1)

and where their use is accepted by the team (30: +1). For these sergeants, the team and their role within it have significance.

5.2.6. Interpretation of Factor 3 – the Receptive sergeant

'... willing to consider or accept new suggestions and ideas."40

Factor 3 has an eigenvalue of 1.42 and represents 5% of the study variance. Five officers were associated with this factor, all of whom were male. Four of the five officers were from emergency response policing roles and one from community policing. Three of the five officers reported holding a postgraduate qualification. One officer recorded their HLAA as GCSE/CSE and another as A-Level/NVQ. Those officers who represented this factor ranged in age from 25 to 54 years and in service from two to 15 or more years of service. Officers representing this factor were split in the ratio of 2:1:2 to Forces 2, 3 and 4 respectively.

Shown below is the factor array for a Receptive sergeant. It is a composite of the individual Q-sorts from the five sergeants who shared this viewpoint.

Titlat place dece pence deductine recedition have within mentante pencing.											
-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	
31	14	1	4	9	2	12	5	19	21	13	
46	15	32	6	10	3	17	8	22	27	45	
(2)	23	39	7	11	16	28	24	25	34	(2)	
	(3)	40	20	36	18	35	26	33	(3)	-	
		(4)	38	44	30	37	29	(4)	-		
			(5)	48	41	43	(5)	•			

'What place does police academic research have within frontline policing?'

Figure 46. Factor array for sergeants - Factor 3.

5.2.6.1. 'Receptivity to research'

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⁴⁰ (Oxford University Press, 2020a)

Receptive sergeants, like the Pragmatists and Traditionalists, are open to using tactics which emanate from research (25: +3). However, they also strongly believe that police culture acts as a barrier to implementing research on the frontline (13: +5).

'Police culture does not like outsiders having input.'

'There appears a fear to try anything new.'

'Anything new in the police is met with apprehension, and police officers need to be won over to adopt RBTs.'

Despite these challenges, they share the view that there is a need for research which supports frontline officers (27: +4) and brings about changes in working practices, particularly improving ineffective ways of working:

'Research is vital to consider how we might improve ... we cannot continue doing things like we used to.'

These sergeants recognise that research provides opportunities to replace untested evidence based solely on police experience, and they agree that some of the tactics they use do not appear to have an evidence base to support their use (33: +3):

'We just do things because we always have, with no input from anyone outside the organisation.'

'This is a systemic problem in policing. We do things which don't work and don't do things which do work?'

Unsurprisingly, these sergeants view research as a potential game-changer, strongly believing that research has a role in frontline policing (46: -5):

'We do things with no foundation other than "experience" – a more evidence-based approach is needed.'

'Using "experience" of the past alone is insufficient for future development. However, there is equally sufficient time to stop, reflect and properly learn. This is when academic research should help.'

Their comments reveal a clear view that policing tactics have and continue to be based on 'experience' or organisational learning built over time. For these sergeants, reliance upon past experience prevents the organisation and its officers from looking at new and 'evidence-based' approaches to working practices. These sergeants firmly believe frontline policing requires experiential learning which incorporates reflection, at officer and organisational level, as part of this evidence generating process.

Furthermore, they share the view that research should play a greater role in deciding which frontline tactics should be used (34: +4). This is in direct contrast to the Pragmatist and Traditionalist sergeants. For the Receptive sergeants, research is there to support them and their staff in their roles, and to help eliminate those practices shown to be ineffective:

'Why would we want to waste time doing things that don't work?'

Yes, as it means we will provide a more effective service.'

Unlike the Pragmatists and Traditionalists, they believe that research tactics should replace existing ineffective police practices (3: 0). They also firmly believe that RBTs should be developed to help offenders stop reoffending, thereby focusing on the 'problem, not the symptoms' (45: +5):

'Primary aim should be to stop offending, reducing crime.'

'We need to focus on the problem, not the symptoms.'

Whilst these sergeants are resolute in their views towards using research in the workplace, they are less convinced about the value it can bring to officers in their role. Nevertheless, they believe that research is valuable when dealing with everyday policing incidents (39: -3) and that research, and its tactics, are helpful to them in their role as supervisor (5: +2) and officer (26: +2).

Moreover, the Receptive sergeants are unconvinced that operational experience is more valuable than RBTs (2: 0) and they also do not believe that police work is a craft rather than a science (1: -3). They believe policing incidents are not so complex that they cannot be resolved using RBTs alone (14: -4):

'All social issues can be addressed by research – policing isn't the most complex issue there is where academic research is used.'

For these sergeants, operational experience has a place but so too does research.

5.2.6.2. 'Challenges to research'

Receptive sergeants are not suspicious of officers or staff carrying out research within their organisation (17: +1) (4: -2), and they are even less so of external academics (15: -4):

'I feel very comfortable having external researchers working in force – more objective.'

'I am not suspicious about research being carried out either by police officers or staff as the police service needs to move forward.'

They strongly believe that officers throughout the organisation should be involved in research, viewing this as an opportunity to develop new ways of thinking (23: -4):

'Officers should be open to change and encouraged to consider alternatives. Research can help provide fresh eyes on developing and working in the future.'

'I see no reason why any rank should not participate. Research at all levels is of equal importance.'

Issues of lack of time and organisational demands which might prevent officers from carrying out research in their role (as voiced by the Pragmatic and Traditionalist sergeants) do not appear to concern these sergeants (18: 0). Similarly, they do not feel strongly either way about whether officers have time within their daily roles to take part in research projects (42: 0). Lack of time does not appear to be a barrier to research for this group.

However, for these sergeants, the purpose of RBTs must be clearly communicated to them (8: +2). They feel that officers are more likely to use these tactics when their purpose has been clearly explained (19: +3), thereby securing 'buy-in':

"Why" matters to police for "buy-in"."

For Receptive sergeants and their officers, there is no need to understand the theoretical detail of the research (43: +1) but it is necessary to know whether the required tactics are effective (41: 0). They also believe that it is important that officers are informed about when officers are being used in research, again to secure 'buy-in' and to show transparency (32: -3):

'We need to involve staff for "buy-in".'

'It is ethically important that staff are aware where they are being researched.'

This theme of transparency resonates with their belief that officers should not use tactics without question when told to do so by a senior officer (31: -5):

'Officers need to know why tactics are being used and not just told.'

'Officers need to be told why something works for "buy-in".'

The Receptive sergeants are concerned with the discretional aspects of RBTs to a lesser degree than their Pragmatist and Traditionalist counterparts. They are not wary of tactics which control officer discretion (11: -1) and do not believe that RBTs lessen the opportunity to use it (6: -2):

'Not if they are well designed and meaningful.'

They believe to some extent that RBTs should control officers' decisions in certain policing situations (36: -1). Yet despite placing some value on their ability to use discretion over other policing skills (37: +1), they are unconvinced that they would use RBTs if they afforded more discretion (16: 0):

'We still need to be able to react and value the experience and skills our officers have.'

These sergeants do not believe that supervisors are more likely to use RBTs when measured by performance statistics (9: -1). Moreover, unlike the Pragmatist and Traditionalist sergeants, they do not share the view that supervisors (themselves included) are more likely to use such tactics where it might improve their promotion prospects (10: -1). However, they strongly believe that officers are more likely to use RBTs if such tactics are genuinely supported by their supervisors (21: +4):

'Officers will use RBTs if supported and encouraged by first-line managers.'

'... supervisors are key to driving change.'

The Receptive sergeants view their role in the implementation and use of RBTs in frontline policing as vitally important to the success of such tactics. They believe that it is their encouragement and support which will 'drive change' and less so that the genuine support of senior managers can have the same impact (35: +1). Additionally, these sergeants are not convinced that peer RBT use will encourage others to do the same (12: +1), and like the Pragmatist and Traditionalist sergeants, they do not believe team acceptance of such tactics is likely to increase their use (30: 0). Conversely, it is their role in the adoption and use of RBTs which is crucial.

5.2.7. Summary of the sergeants' Q data

In summary, the Pragmatist sergeants are open to using RBTs and believe that they play a role in supporting frontline officers. They also believe that research is of some value to them, but at the same time, place greater emphasis on operational experience, viewing policing as a craft that develops over time. They prefer individuals with policing experience to act as the researcher (if time allows). Moreover, they strongly believe in the importance of effective communication for the practical implementation of research, suggesting that inadequate communication with officers may result in low engagement. They are not concerned with RBTs affecting their use of discretion because they are not discretion driven. What matters to these sergeants is team engagement with research and RBTs, and the role they play within this process. For the Pragmatist sergeants, the barriers to research and RBTs are firstly a lack of communication, and secondly, research which does not acknowledge operational experience.

The Traditionalist sergeants are open to using tactics which come from research, but they do not believe it has a role to play or is of value to frontline policing. Instead, they believe that research is a task for another part of the organisation: not on the frontline where the 'real' police work takes place. Like Pragmatist sergeants, they hold the traditional view that operational experience outweighs research evidence. In particular, they believe that research cannot help with traditional police incidents such as DV. These sergeants are not suspicious of research or the researcher and feel that officers do not have the time or responsibility to be involved in any capacity. They are less concerned with effective communication and more significantly concerned with the impact that RBTs might have on their use of discretion. This

could present a challenge for the successful implementation of an RBT which appears to erode an officer's use of discretion. Neither the team nor the manager are likely to be able to persuade these Traditionalist sergeants that research has a value in frontline policing.

The Receptive sergeants, like the Pragmatists and Traditionalists, are open to using RBTs in their role. What differentiates them is their belief that research has both a role *and* a value in frontline policing. They believe that research is a means of improving untested practices and replacing these where necessary with '*evidence-based*' tactics. For these sergeants, research should form part of their ongoing learning combined with operational experience, whilst recognising the challenges that police culture presents for implementing research in frontline policing. They are not suspicious of research or the researcher and are not concerned about its influence on their discretion use. Their focus is primarily on communication and the team. They believe in the importance of communication and the team and the supervisor's role in bringing research to the frontline. For Receptive sergeants, the challenges to research include a lack of transparency, an absence of genuine support from supervisors, and more broadly, police culture being generally unwelcoming of research.

5.3. Analysis and Factor Interpretations - Constables

The following section of this chapter is dedicated to interpreting the three constable viewpoints. These distinctive viewpoints are assigned the following typologies: Receptive (Factor 1), Autonomous (Factor 2) and Traditionalist constables (Factor 3).

5.3.1. Constables' sample

The constables' sample involved 31 participants, with a Q-set comprised of 48 statement items, satisfying the recommended number of items (Watts and Stenner, 2012). Table 11 shows the number of constables who took part in the Q-sorting process, by their respective forces.

Table 11: Q-sort constable participants, by force

	n	% of total participants
Force 1	0	0
Force 2	11	35.4
Force 3	10	32.3
Force 4	10	32.3
Total	31	100.0

5.3.2. Analysis of constables' Q-sorts

The 31 constables' Q-sorts were intercorrelated and subjected to a by-person or by-Q-sort factor analysis using the PQMethod software package (Schmolk, 2018). For the constables' 'combined' data, the analysis revealed an initial solution of three factors. On closer inspection of this three-factor solution, all three factors were found to have eigenvalues greater than 1.00, in agreement with the Kaiser-Guttman criterion (Watts and Stenner, 2012). These three factors together explained 42% of the total study variance, providing fulfilment of the criterion necessary for a sound factor solution (Kline, 1994). Twenty-five of the 31 Q-sorts loaded significantly on one or more of these three factors. Factor loadings exceeding \pm 0.38 were significant at p < 0.01. The three extracted factors provided three distinguishable viewpoints upon which to base full interpretation. The descriptive statistics for the final three-factor solution are presented below:

Table 12: Descriptive information for the three factors resulting from Q analysis

Гастан	Number of people	Number of people Eigenvalue Variance		Composite	SE for factor	
Factor	loading on factor		explained (%)	reliability	Z-scores	
1	13	8.6182	28	0.981	0.137	
2	7	2.8219	9	0.966	0.186	
3	5	1.5921	5	0.952	0.218	
Total	25		42			

5.3.3. Constables' factor arrays

Factor rotation generated three-factor arrays, as shown in Appendix Eleven. Of the 48 statements, 13 were identified as 'consensus' items, i.e. those statements whose rankings do not distinguish between a pair of factors (a difference of score being noted as 2; Watts and Stenner, 2012). These items are shaded grey in the table found in Appendix Eleven.

A closer examination of these consensus statements reveals three general groupings. The first grouping (statements 3, 26, and 34) relates to the broader sub-themes of *openness*, *value* and *role*. Constables within the sample group share the view that RBTs ought to support, not replace, existing tactics but they remain broadly unconvinced as to whether RBTs are helpful to them in their role. They disagree that research should play a more significant role in deciding which tactics are used in frontline policing. The second grouping (statements 8, 19, 32 and 41) relates to the sub-theme of *communication* and presents the shared view that officers need understand why they are being asked to use RBTs and where officers are being used to carry out research. Constables are far less concerned about the origins of RBTs, preferring to focus on the effectiveness of RBTs in helping them in their role. The third grouping relates to the sub-theme of *supervisor*. Constables believe that genuine support from a supervisor is more likely to encourage them to use RBTs. However, they also understand that supervisors are more likely to use tactics when measured by performance figures: they neither agree nor disagree as to whether this would encourage constables themselves to use RBTs.

Despite the 13 consensus items having rankings which do not distinguish between any pair of factors, they have not been removed from the three, full factor interpretations. This is because when considered as part of the full factor configurations, they provide useful insights into the shared viewpoint of the group as a whole (Watts and Stenner, 2012, p.218).

5.3.4. <u>Interpretation of Factor 1 – the Receptive constable</u>

'... willing to consider or accept new suggestions and ideas."41

Factor 1 has an eigenvalue of 8.61 and represents 28% of the study variance. Thirteen constables were associated with this factor, eight males and five females. Of the 13

⁴¹ (Oxford University Press, 2020a)

constables, four were from Force 2, four from Force 3 and five from Force 4. Four officers reported their HLAA as GCSE/CSE, three officers as A-Level, four had undergraduate degrees, and the remaining two had postgraduate qualifications. Concerning officers' length of service, five of the officers held between 8 and15 years of service and five officers had 15 or more years of service. The remaining three constables reported lengths of service ranging between 0 and 1 years and 2 and 8 years. Three officers were aged between 45 and 54 years, six officers between 35 and 44 years, three officers between 25 and 34 years, and one officer between 18 and 24 years. Eight constables identified as holding an emergency response role, and the remaining five officers identified as being in a community policing role.

Shown below is the factor array for a Receptive constable. It is a composite of the individual Q-sorts from the 13 constables who shared this viewpoint.

	***	at place	, acco k	onoc a	oudenn	0 10000	a on na	V C VVICIII	11 11 0110	iiic poii	onig.
	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
	31	4	15	11	1	5	3	2	19	10	25
	46	29	23	20	6	7	9	8	27	18	45
•	(2)	39	33	24	14	13	16	12	30	41	(2)
		(3)	42	32	28	26	22	17	48	(3)	=
			(4)	38	36	34	35	21	(4)	•	
				(5)	37	40	47	(5)			
					(6)	43	(6)	-			
						44					

(8)

'What place does police academic research have within frontline policing?'

Figure 47. Factor array for constables - Factor 1.

5.3.4.1. 'Receptivity to research'

The Receptive constables are open to using tactics from academic research (25: +5). In this context, and reflecting upon their understanding of what it means to be open to research in their role, they speak of efficiency and practice improvement in direct connection with their use of research:

'I am open to all new ideas that will help me in my role and do a better job.'

^{&#}x27;I am open to these as these can make us more effective.'

These constables believe that there is a real need for research which supports frontline policing (27: +3) and strongly believe that research can play a role in their world of work (46: -5):

'Research can help us understand the public we deal with. [It] works and can help us.'

'It does definitely have a place; policing must constantly change and adapt. How can we do this blind? If research can support us in decisions of how we change, it can benefit all.'

"... everyone should be open to new ideas which research could identify."

Although they believed officers should be expected to use RBTs within their role (22: +1), they balance this view with the stipulation that research should not drive all frontline practices (29: -4):

'Academic research is vital but does not always reflect the real world.'

'Frontline needs experience and cannot always be research-driven, research can't predict human behaviour/emotions/behaviour.'

'I also don't agree all frontline work should be academically driven as this ... will not account for some of the more "surreal" incidents we attend.'

Receptive constables believe that there should be a balance between police experience and knowledge and the use of research within their work. They also feel that research should fulfil a 'complementary' role, allowing for experience to help them deal with the 'surreal incidents' and 'the real world'. However, they remain unconvinced about whether research could play a more significant role in deciding which frontline tactics should be used (34: 0).

Despite this, they are certain that RBTs should be developed to prevent individuals from reoffending (45: +5), and they recognise that effective research could reduce offending and help to 'make communities safer':

'A lot of our work is with repeat offenders that carry out most of the crime. If research helps reduce this, it helps reduce demand and frees up officers.'

'More effective research should be a driving force to stop and help offenders reoffending to make communities safer.'

Although they believe that officers should be expected to use RBTs, these constables are less convinced of the *value* that research has for them in their day-to-day role (5: 0) and the *helpfulness* of such tactics (26: 0). They are, however, certain that academic research, in a broader context, has value in helping to deal with policing incidents (39: -4):

'Research is vital to the future of modern policing. We police with consent and must be seen to be valid and for our work to be helping with issues to continue that.'

The Receptive constables believe that officers do not have the time within their daily role to take part in research projects (42: -3) and they strongly believe that they themselves are too busy to carry out research (18: +4):

'The demands of policing are getting more. Officers don't have the time – we are already too stretched.'

'There is no time to investigate everything/be everywhere etc. meaning there is no time for research unless people are taken off shift, which would then put more pressure on their shift.'

As well as citing time constraints as a barrier to research, they also hold the more traditional view that operational experience is of greater value to officers than RBTs (2: +2). They do not necessarily believe that police work is a craft, rather than a science (1: -1).

5.3.4.2. 'Challenges to research'

The Receptive constables are not generally suspicious of research or a researcher in their workplace, nor are they suspicious of research being carried out by external academics (15: - 3) or by officers (17: +2). They are even less suspicious of research being carried out by police staff within their organisation (4: -4) and feel that the focus should be on the research itself, not who the researcher is:

'Why would I be suspicious?'

'I am in favour of research, and I'm not at all suspicious.'

However, whilst they are not suspicious of researchers, they do not necessarily believe that research is always best carried out by external researchers (24: -2). Furthermore, they suggest that officers, whatever their rank, should not be excluded from carrying out research (23: -3).

These constables place value on effective communication regarding research and the use of RBTs within their workplace. They need to be informed about why they are using RBTs (8: +2) and they believe that officers are more likely to use such tactics if their purpose has been clearly explained (19: +3). This supports their view that officers *do* need to know if they are used to carry out research within their organisation (32: -2). They are less concerned with knowing about or understanding the origins of the tactics, and more concerned with knowing that they are effective in helping them in their role (41: +4):

'As long as it makes my job easier, I don't care where it's from.'

'I want to see various tactics across a broad range of cultures and communities to make a change in my role.'

Furthermore, these constables firmly believe that officers should not use RBTs without question when asked to do so by a senior officer (31: -5):

'The tactic should be used because it works, not because someone says to.'

'Instructions from a senior officer doesn't mean it's the right thing to do, choice/circumstances etc. is more important.'

'Officers on the frontline should be consulted, as often senior officers will implement things with knowledge based on their outdated experience of the frontline and [not] the challenges frontline officers face today.'

For Receptive constables, open channels of communication with senior officers are important for two reasons. Firstly, it ensures the tactic is correct and is 'the right thing to do' in the circumstances, allowing them to voice their opinions accordingly. And secondly, it avoids what constables perceive to be senior officers' 'outdated experience of the frontline' influencing the implementation of unsuitable tactics.

Unlike communication, which is important to Receptive constables, they are not overly concerned about discretion and its use within RBTs. They are not suspicious of tactics which control officer discretion (11: -2) and do not necessarily value the use of discretion above their other skills (37: -1). They do not believe that RBTs lessen opportunities to use their discretion (6: -1) and feel that in certain circumstances, the decisions officers make should be controlled by RBTs (36: -1). They also suggest that the more discretion RBTs afford officers, the more likely they are to be utilised (16: +1), and they are confident in their use of discretion and its compatibility with RBTs. For these constables, the application of discretion is not the most significant and valuable skill they have.

Receptive constables firmly believe that supervisors are more likely to implement RBTs if they are beneficial to their promotion (10: +4):

'It is borne out time and time again that people drive for promotion then drop the ideas they instigate on reaching their goal.'

'Promotion/self-advancement is upmost in supervisors' minds. If implementation leads to promotion, they will blindly go with it.'

'I think a lot of police practices seem to be introduced by someone looking for promotion.'

Similarly, they also believe that supervisors would be more likely to use RBTs if they are measured by performance figures (9: +1), but the use of performance management as an incentive to implement RBTs would not directly influence the constables themselves to use RBTs more often (7: 0):

'Unfortunately, often used as a performance measure rather than the right use of a tactic.'

These constables focus on the role of the team, peers and supervisors in influencing their use of RBTs. They believe that team acceptance of tactics (30: +3), and their peers' use of RBTs (12: +2), are likely to positively influence their own use of such tactics. These constables feel that officers would be more likely to use RBTs if they are genuinely supported by their supervisor (21: +2) but less motivated by the genuine support of senior officers for RBTs (35: +1). For the Receptive constables, the team and the first-line supervisor matter the most in the implementation of RBTs in frontline policing.

5.3.5. Interpretation of Factor 2 – the Autonomous constable

'... capable of self-legislation and able to make judgments and actions based on his/her particular set of values, preferences, and beliefs.*42

Factor 2 has an eigenvalue of 2.82 and represents 9% of the study variance. Seven constables were associated with this factor, five males and two females. Of the seven constables, three were from Force 2, two from Force 3 and two from Force 4. Two officers had achieved their HLAA at A-Level, two at GCSE/CSE level and the remaining two officers had undergraduate qualifications. In terms of officers' age, two officers were aged between 45 and 54 years, four officers were aged 35 to 44 years, and one constable was aged 25 to 34 years. Four officers reported being in an emergency response role, and the remaining three officers were from a community policing role.

Shown below is the factor array for an Autonomous constable. It is a composite of the individual Q-sorts from the seven constables who shared this viewpoint.

		,							- ,-	- 3
-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
29	22	27	23	16	4	1	11	3	40	2
42	24	30	17	12	21	14	31	9	18	37
(2)	28	5	34	32	7	19	38	41	6	(2)
	(3)	33	47	35	13	8	45	43	(3)	
		(4)	44	46	10	36	20	(4)		
			(5)	48	25	39	(5)			
				(6)	26	(6)	•			
					15					

'What place does police academic research have within frontline policing?'

Figure 48. Factor array for constables - Factor 2.

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⁴² (Osamor and Grady, 2018, p.2). 'Autonomous' has been chosen as the name for this viewpoint on the basis that officers who exemplified this viewpoint appear to be uninfluenced by peers, supervisors or senior managers and base their decisions entirely on their own beliefs and values.

5.3.5.1. 'Receptivity to research'

The Autonomous constables are undecided about their openness toward RBTs in their role (25: 0) and are equally unconvinced regarding the helpfulness of RBTs (26: 0). Furthermore, they do not believe there is a real need for research which supports frontline officers in what they do (27: -3). However, they do marginally agree that research has a place in frontline policing (46: -1), but they believe that tactics should support existing police practices, not replace them (3: +3). This idea of support rather than replacement is understood as RBTs not causing a hindrance to existing practices, that is, that RBTs should not 'stop them doing their job':

'Officers police the way they are used to and if it's not broken don't fix it. What is needed is more officers on the streets with less obstacles to stop them doing their job.'

These constables also express disagreement that frontline police tactics are outdated (28: -4):

'... I don't agree policing is outdated nor do things always need repairing – things need to evolve and complement each other.'

Unsurprisingly, given their scepticism towards research, they do not believe that research is of value to them in their day-to-day role (5: -3), and similarly, they feel it has no real value when dealing with everyday policing incidents (39: +1). They resolutely believe that academic research should not drive all frontline practice (29: -5):

'I believe having the experience of working as a police officer cannot be beaten.'

For Autonomous constables, value is placed on experience above research, with the acknowledgement that policing practice should not be driven by research alone:

'Policing should be a balance and not driven by research alone.'

For these constables, the frontline role is about responding quickly to situations, not waiting for research results to come to fruition (40: +4):

'Because policing is so varied, I feel responding quickly and logically to incidents outweighs academic research.'

According to the Autonomous constables, police incidents are diverse and complex, and research cannot help when dealing with these. They cite operational knowledge and experience as the most important factors, and these are seen as more valuable than RBTs (2: +5):

'As a relatively new officer, my biggest learning experiences have come from dealing hands-on with jobs and not necessarily the theory behind it.'

'Confidence from having dealt with incidents previously, especially knowing individuals, areas etc.'

Whilst describing the value placed on experiential learning, Autonomous constables present the view that research and experience are mutually exclusive. They feel strongly that police work is a craft and not a science (1: +5). They believe that 'time served' equates to experience:

'Police work is a craft due to the experiences you deal with and have been taught over years of being frontline.'

'I believe that policing is a make-up of practical and academic skills. I believe there need[s] to be a blend of both for success.'

These constables strongly disagree that they and their peers should be expected to use RBTs in their role (22: -4), referring to 'old fashioned policing', 'hands-on experience' and a lack of time as the rationale for this:

'Most things new in policing are designed to save money but seem to have less officers doing old fashioned policing.'

'Officers should not have to use RBTs ... hand[s] on experience cannot be beaten.'

'Officers can be tied up with one job for a whole shift so therefore often do not have time to participate.'

They disagree that police culture acts as a general barrier to implementing RBTs (13: -2), but highlight that culture might be an issue because 'cops being cops' do not like change and rely upon operational experience:

'Police culture might act as a barrier due to cops being cops. No one likes change, and a lot of experience in policing is passed down from more experienced officers.'

5.3.5.2. 'Challenges to research'

While the Autonomous constables are dismissive of research in their workplace, preferring to rely on operational experience, they are not overtly suspicious of research being carried out in their organisation. Moreover, they are not explicitly suspicious of research being carried out by police staff (4: 0) or external academics (15: 0). They are, however, somewhat suspicious of research being carried out by their peers (7: -2) and they strongly disagree that research is best carried out by external academics (24: -4):

'... how can it be proven that external researchers know best about policing when they do not do the job?'

'I believe research should be conducted by internal officers of each force.'

For these constables, the researcher must have experience in operational policing, given the value they place on this. They disagree that frontline officers should identify areas for future research (48: -1) and firmly believe that officers are too busy to carry out research themselves (18: +4) or take part in others' research (42: -5):

'Officers only have time to concentrate on their current investigations and sometimes not even enough time to do that. Any other duties just add to the backlog of work.'

'Officers would never get the time to conduct academic research on shift.'

In their view, a lack of time to carry out, participate in, or identify future areas for research is a significant barrier to research activities in their workplace. They perceive research as an 'add on' and not an integral part of their role, and because they do not value research, there is simply no time (or inclination) to incorporate it into their practices.

These constables are not concerned with the origins of RBTs, just that they are effective in helping them in their role (41: +3):

'I tend to deal with incidents in a way I feel works best, as long as they are effective.'

Therefore, for them, research can be used because its tactics are effective in helping *them* in their role. They are not concerned with the origins of the research and do not express a need for in-depth knowledge about it (43: +3). However, they request that the purpose of RBTs be communicated clearly to them (19: +1) and similarly state the importance of officers being informed of the reasons for their use (8: +1). They also want to know when they are expected to take part in a research study (32: -1) and to be able to decide for themselves whether the tactics will be valuable to them in their role. Furthermore, unlike officers in the other five groups, these constables believe that officers whom a senior officer has told to use an RBT should do so without question (31: +2). For the Autonomous constables, the traditions of hierarchy and orders still exist within the policing organisation:

'... if new tactics are implemented by a supervisor, as a ranked organisation we must follow suit.'

While the Autonomous constables agree with the other viewpoints regarding the importance of communication, what differentiates them from the Receptive and Traditionalist constables are their opinions on discretion in academic research. These constables hold two distinctive views. Firstly, they strongly value their discretion above all other police skills (37: +5):

'Frontline policing should always allow cops to use their discretion.'

Secondly, they are more concerned with the impact of research on their use of discretion. They believe that RBTs lessen the opportunity to use their discretion (6: +4) and assert the importance of discretion in their decision-making:

'Officers' discretion should never be removed.'

These constables are wary of tactics that control officer discretion (11: +2), which is unsurprising given the importance they place on it. They also believe that decisions made by officers in operational situations should not be controlled by RBTs (36: +1).

The Autonomous constables are ambivalent about whether supervisors would be more likely to use tactics if it improves their promotion prospects (10: 0). However, they feel that supervisors are more likely to use them when measured by performance figures (9: +1). Nevertheless, individual performance figures would not motivate these constables to deploy RBTs more frequently (7: 0).

Just as performance measures are not a motivating factor for these constables to use RBTs, neither is team adoption. The constables do not believe that officers are more likely to use RBTs if their team accepts them (30: -3) or if their colleagues are using them (12: -1). Team practices and colleagues' use of tactics do not influence them:

'I believe as an officer each job is unique, and officers would use tactics based on previous knowledge/experience.'

Similarly, they are unmotivated by senior officers' genuine support for RBTs (35: -1) and unconvinced that supervisors' genuine support for research would likely increase RBTs' use (21: 0).

'Because change of tactics brings uncertainty and so you need to feel supported.'

Thus, Autonomous constables are not motivated by their team, supervisors or senior officers to use RBTs and their motivation to use such tactics comes from their personal views towards research.

5.3.6. Interpretation of Factor 3 – the Traditionalist constable

'... an advocate of maintaining tradition, especially so as to resist change."43

Factor 3 has an eigenvalue of 1.59 and represents 5% of the study variance. Five male constables were associated with this factor. Of the five constables, one was from Force 2, two from Force 3 and two from Force 4. Three officers had achieved HLAA at GCSE/CSE level, one at A-Level and one at undergraduate level. In terms of officers' ages, two of the five officers were in the 45 to 54 years category, two in the 35 to 45 years category and one in the

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⁴³ (Oxford University Press, 2020c)

25 to 34 years category. Two out of the five officers reported having more than 15 years of service, two officers had 8 to 15 years' service and one constable had 1 to 2 years' service. Two officers were in an emergency response role, and the remaining three officers were from a community policing role.

Shown below is the factor array for a Traditionalist constable. It is a composite of the individual Q-sorts from the five constables who shared this viewpoint.

		,								
-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
4	23	15	13	18	5	3	12	6	2	1
28	31	32	22	24	7	9	14	16	11	37
(2)	46	43	29	27	8	10	21	25	41	(2)
	(3)	44	39	33	20	17	26	36	(3)	ц
		(4)	42	34	38	19	35	(4)	ц	
			(5)	40	45	30	(5)	•		
				(6)	47	(6)	•			
					48					
					(8)	1				

'What place does police academic research have within frontline policing?'

Figure 49. Factor array for constables - Factor 3.

5.3.6.1. 'Receptivity to research'

The Traditionalist constables are open to using RBTs in their practice (25: +3) but are less convinced of the need for academic research to support them in their role (27: -1). They do not necessarily agree that research should play a greater role in deciding which frontline tactics are used (34: -1) and believe that research should not drive all frontline practices (29: -2).

However, despite their reticence towards research *defining* frontline tactics, these constables *do* hold the belief that there is at least a role for research in frontline policing (46: -4):

'To me research will always have a place in any organisation.'

These constables feel that it is inappropriate for officers to be expected to use RBTs (22: -2), but they do believe (like their Autonomous counterparts) that operational experience is more valuable to them (2: +4):

'Confidence with dealing with public and incidents under high pressure. Research cannot teach you to be a good cop.'

'Police work is a unique role, you become a better officer with experience.'

Therefore, for this group, operational experience has more value than research, and as expected, these constables believe that police work is a craft, not a science (1: +5):

'Police experience is a craft which is learned over a long time.'

'Learn how to get good results through experience, dealing with all social groups over time.'

Despite the value they place on operational experience and knowledge, they believe, to a degree, that RBTs are helpful to them in their role (26: +2) and also that research has *some* value when dealing with everyday policing incidents (39: -2). However, they are unconvinced about whether research is of tangible value to them in *their* everyday role (5: 0).

Traditionalist constables do not believe that police culture is a barrier to implementing RBTs in the workplace (13: -2). They also disagree that frontline policing tactics are outdated (28: -5), firmly asserting that the tactics they currently use are effective and fit for purpose:

'Frontline police tactics are not outdated as they have developed over decades of dealing with the public and they work.'

'Policing rapidly changes and lately the police are quick to change tactics, driven by the fear of being found in the wrong by the government.'

5.3.6.2. 'Challenges to research'

Traditionalist constables are not suspicious of research being carried out by police staff within their organisation (4: -5). They are, however, marginally suspicious of external academics (15: -3), and to some degree, officers carrying out research within their organisation (17: +1). Despite this, they *believe* that officers, irrespective of their rank, ought to be carrying out research (It23: -4) and believe that this can be part of their day-to-day role:

'I believe that officers can carry out research in their day-to-day role, it doesn't have to be formal questioning.'

These constables, unlike their counterparts, believe less so that officers are too busy within their roles to carry out research (18: -1), but similarly believe that officers do not have time to *take part* in research projects (42: -2) given the demands of their role:

'Officers do not have time to carry out research. They barely have time to conduct basic duties.'

Therefore, there is a consensus for this group that officers may have time in certain but limited circumstances to carry out and take part in research, although not in the everyday working environment.

Communication is essential to these constables, as it is for the Receptive and Autonomous constables. Like their counterparts, they are less concerned about the origins of the research and more concerned that the tactics are effective in helping them in their role (41: +4):

'If there is a better tactic to make me better at my job – great!'

'Tactics have historically been developed with the aid of research. Research and consultation is not a new thing.'

However, they also believe that officers need to know at least some information about the academic research, not just that the tactics are helpful (43: -3). So, whilst these constables do not need to know the origins of the research, they do want to know some details about how the tactics will help them in their role.

The Traditionalist constables believe that their colleagues are more likely to use RBTs when the purpose has been clearly explained to them (19: +1). They also state that it is important to be told if they are participating in research in their organisation (32: -3):

'I think it would be unethical not to tell officers if they were being used for research.'

Like the Receptive constables, they do not agree that officers whom a senior officer tells to use an RBT should do so without question. They understand this to be a historical practice (31: -4):

'The days of being ordered to do without question are gone. Everyone is accountable.'

'The days of senior officers expecting blind obedience have moved on, so officers should be told why.'

Traditionalist constables marginally agree that supervisors are more likely to implement RBTs when doing so is beneficial for their promotion (10: +1) or where tactical use is measured by performance figures (9: +1).

Traditionalist constables are also strongly discretion-focused; they value their discretion above all other policing skills (37: +5):

'My ability to make a decision based [on] circumstances is very important to me.'

'I believe that discretion is the most important tool for officers to have.'

They believe RBTs lessen the opportunity to use their discretion (6: +3) and that decision-making in policing situations should not be controlled by RBTs (36: +3):

'I have powers of constable and should be trusted when to use discretion and when appropriate to follow policy.'

'Discretion is the main power I think should be preserved, guided by tactics.' N4WM8CUG

Consequently, they are suspicious of RBTs which control officers' use of discretion (11: +4), believing that the more discretion RBTs allow, the more likely they are to be used by officers (16: +3).

These constables are likely to be influenced by their peers' behaviour towards using RBTs (12: +2), as evidenced by their view that officers are more likely to use RBTs if they are

accepted by their team (30: +1). They also believe that officers are more likely to use RBTs if they are genuinely supported by their supervisor (21: +2) and senior managers (35: +2). There is a focus on traditional team and rank-based values for these constables.

5.3.7. Summary of the constables' Q data

In summary, the Receptive constables are open to using RBTs and believe they have a role and a value in frontline policing. They feel that there is a need for research which supports them in their role but that this should be blended with operational experience. Despite their apparent openness, they are somewhat cautious and are unsure about the role that such tactics should play in their daily activities. Unlike the Receptive sergeants, they do not believe that they or their fellow officers have time to participate in research. They are not suspicious of research or researchers within their organisation and believe that all officers should conduct research. They do not show concern about RBTs and their impact on the use of discretion. There is a clear need for effective communication regarding the purpose, value, and use of research from their immediate supervisors and senior managers for these constables. They firmly believe that supervisors would be motivated to use RBTs to aid their promotion and suggest that this may negatively influence officers' 'buy-in'. For the Receptive constables, the team and genuine supervisors' support are likely to motivate them to engage with research and RBTs.

Autonomous constables are much less open to using RBTs in their work. They believe to a lesser degree that research has a role to play in frontline policing, and they feel that research has limited, if any, value to them in their role. They strongly believe in the value of operational experience, and this surpasses any value research may bring to the role. They prefer to make their judgement about research, based on *their* beliefs and values. Therefore, they are not influenced by how research is communicated and by whom. They are not motivated or influenced by their peers, supervisors or senior managers, and this extends to using RBTs. This group are resolute in their belief about discretion, and any tactic which seeks to curtail this may be met with opposition. For the Autonomous constables, whilst there might be a role for research in the wider policing organisation, there is only a limited role for RBTs, mainly when such tactics are of personal benefit to them.

Traditionalist constables are open to using RBTs in their role but believe to a lesser degree in the value and role of research, placing greater importance on operational experience. They believe that research has a role and can help deal with some policing incidents. They feel that some officers have enough time to participate in or carry out research, but not those within a

frontline role. They are highly motivated by their use of discretion (like their Autonomous peers), and any RBT which appears to impinge on the use of officers' discretion may be met with some resistance. They value effective communication and want to know the purpose, value and implications of RBTs. These constables are motivated by their team and the hierarchy's support for and use of RBTs, facilitated by effective communication.

5.4. Conclusion

This chapter has presented the Q data and factor interpretation for the frontline sergeants and constables. It offers six distinctive viewpoints about the role of research and the challenges associated with implementation in frontline policing practice. Whilst it is reasonable to hypothesise that both ranks share similar views relating to the role of research, this is not necessarily the case. The similarities and differences revealed by this data suggest that officer receptivity to research exists on a continuum for numerous reasons. It is the exploration of these underpinning reasons which arguably reveals a more nuanced understanding of receptivity.

Following this, Chapter Six is the first of two discussion chapters which converge the findings from the quantitative and qualitative strands of the study to consider officer receptivity to research, addressing RQ₁, RQ₂ and RQ₃. Chapter Seven will similarly combine the findings relating to 'Challenges to Research' from the quantitative and qualitative strands supporting RQ₄. In doing so, these discussions will present a more comprehensive narrative generated from this mixed-methods approach.

Chapter Six: Towards a Nuanced Understanding of Receptivity to Research

6.1. Introduction

This chapter focuses on the first research theme of 'Receptivity to Research' and is one of two discussion chapters. It is explicitly concerned with answering the first three research questions (RQ₁ to RQ₃) and engages with the themes of *openness*, *role* and *value*.⁴⁴ Findings from both methodological strands reveal variations between the views of constables and sergeants relating to the theme of Receptivity to Research. Therefore, the aim of this chapter is to frame these differences, explore the potential explanations for these, and consider their relevance in light of the existing literature.

In support of the convergent parallel design of this study, findings from the quantitative strand (relating to the four forces) and findings from the qualitative strand (relating to three of the forces) are brought together in this chapter through the study's sub-themes. This is the point of convergence at which the findings from both strands are conclusively integrated for final interpretation. This merging of both approaches is presented as a narrative, woven through the chapter (Fetters *et al.*, 2013). Additionally, officers' comments from the group Q-sorting discussions are used to support and enhance the narrative between the questionnaire and the Q findings (annotated 'GD' - group discussion within the text). Individual exit comments provided by officers when completing the QM post Q-sort questionnaires are annotated 'EC' within the text.

As presented in the literature review, numerous studies have focused on the broader concept of police receptivity to research (Palmer, 2011; Telep and Lum, 2014; Hunter *et al.*, 2019; Palmer *et al.*, 2019, Blaskovits *et al.*, 2020). Within this study, it has been suggested that 'receptivity' is an umbrella term which encompasses officers' openness towards research, their understanding of the role it ought to play and the value they place on research in their everyday work. This research was designed to explore these three factors in greater depth to

⁴⁴RQ₁ To what extent are constables and sergeants open to research in frontline policing?

RQ₂ What role do constables and sergeants believe research ought to play in frontline policing?

RQ3 What value do constables and sergeants place on research in frontline policing?

provide a more nuanced understanding of what is commonly referred to as receptivity to research.

6.2. Openness to Research in Frontline Policing

Officers' openness to research was explored in the survey using two survey statements which focused on their views on undertaking and evaluating research. Within the Q strand, officers were asked to consider their openness towards using research-based tactics (RBT) in their frontline role. Findings from both strands of this study broadly revealed that officers were 'receptive' to the use of research within their role, which has been similarly observed in the work of others (see Blaskovits *et al.*, 2020; Fleming and Wingrove, 2017; Lumsden, 2017; Telep, 2017).

Focusing on the survey data, the results indicated that sergeants were significantly more open to conducting research than constables (52.3% and 29.2% respectively). Sergeants were also significantly more open to evaluating research (52.3% to 28.8%). These findings suggest differing opinions towards openness based upon rank. When asked to consider their openness towards using RBTs in the QM strand, five of the six typologies (three sergeants and two constables) agreed that they were open to using RBTs. Only the Autonomous constables were unconvinced of their openness towards RBTs. Therefore, when considered together, the survey findings indicate that sergeants show greater openness towards research in their role. This is similarly reflected in the Q findings, namely that constables are less open towards using RBTs than sergeants (a finding also reported by Telep [2017] and Palmer *et al.* [2019]). A key finding of this study is that both ranks are, in the main, open to carrying out and using RBTs in their roles, but this is differentiated by rank and is discussed in more detail below. The discussion explores the potential reasons for these rank differences in opinion.

6.2.1. Sergeants' openness to research

Closer consideration of the combined sergeants' data from the survey and QM presents a convergence in the data on their openness towards research in their role. However, whilst most sergeants agreed that they were open towards carrying out and evaluating research (52.3% in both cases), a significant number were disinterested in doing so (around 40% for both), thus presenting a divide in views within the rank itself.

Turning to the QM findings, although the three sergeants' typologies aligned regarding openness, there were differing reasons for this. For the dominant Pragmatists, their openness towards using RBTs was tempered with a general belief that the value of operational experience outweighs the value of research, exemplified below:⁴⁵

'Dealing with incidents gives you the best practice rather than research. 'ON THE JOB'.'

EC Pragmatist sergeant

A preference for operational experience when considering openness is demonstrated in the comment below:

RF: It's like when you're on a shift when you first join. You're picking up little bits from each officer that you're working with, making it your own style.

GD sergeants

The Traditionalist sergeants were also open to carrying out and evaluating research, based on the proviso that the 'complexities' of the role are adequately acknowledged:

'Not all policing can be academically driven. It is too complex to apply a formula.'

EC Traditionalist sergeant

'Research-based methods can make suggestions re: best practice but the decisions must ultimately be based on human factors.'

EC Traditionalist sergeant

A further condition, articulated by the Traditionalist sergeants, is that research activities ought to have practical benefits that are specific to their role:

RM: Yeah, if it's going to help us in some way day-to-day.

GD sergeants

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⁴⁵ As discussed in Chapter Five, the Pragmatist sergeants' viewpoint represented 31% of the variance observed in the QM data and was therefore the dominant viewpoint. The Traditionalist sergeants represented 10% of the variance and the Receptive sergeants represented 5%.

On the other hand, for the Receptive sergeants, their openness was tied to the belief that research can improve their role by removing practices which are not evidence-based:

'Research is vital to consider how we might improve. It is vital – we cannot continue doing things like we used to.'

EC Receptive sergeant

Therefore, whilst sergeants appeared to be reasonably open to research, in theory, this openness was based on different understandings of the value that research has for them in their role. Furthermore, the dominant viewpoint – the Pragmatist sergeants – were less open to using research in their day-to-day roles than their colleagues. Their relative resistance (whilst still being open to the idea of research which is useful practically) was tied to a conflict between the value of operational versus research experience in the field. In summary, the findings on *openness* suggest that for sergeants, research needs to be compatible practically with the frontline role and aimed at paring out untested practices. Significantly, for sergeants, openness is bounded by appropriate recognition of operational experience and its value in the workplace. Recognition of operational experience, as has been presented throughout this study, is well documented in the work of others (see Fleming and Rhodes, 2018; Rowe *et al.*, 2016; Willis and Mastrofski, 2018).

It is apparent that the recognition of operational experience is an important factor which shapes sergeants' openness towards research. For these officers, openness is dictated firstly by how useful they perceive research to be to their everyday role, and secondly, by understanding that their operational experience is of greater value to them. This finding regarding the importance of experience over research is consistent with the findings of Telep and Lum (2014) in America, Blaskovits *et al.* (2020) in Canada and also Fleming (2020) in the UK. In their examination of frontline officer receptivity to research, the three studies found that officers strongly believe experience should play a more significant role than research in day-to-day decision-making processes. When considering their openness and willingness to try new ideas for these sergeants, the emphasis was placed on the day-to-day role and not on the broader, arguably more abstract, role of research within the policing organisation.

6.2.2. Constables' openness to research

For constables within this study, openness towards research was underpinned by differing views from sergeants, observed in SSD in survey responses between the ranks (see Section 4.3.2). The survey findings suggested that whilst over a quarter of constables were open to

carrying out (29.2%) and evaluating research (28.8%) in their roles, significantly more were closed to the idea of carrying it out (47.8%) or evaluating it (43.6%). Additionally, around a quarter of constables were 'neutral' in their responses to the two statements (23.1% and 27.7%). Considering these results in conjunction with the Q data provides a more nuanced understanding of the differences observed between the constables in their openness towards research in practice.

For the dominant Receptive constables, and to a lesser extent, the Traditionalists, their openness was tied to the belief that research has value in their role.⁴⁶ The Receptive constables were open to research, viewing it as a way they can improve their overall effectiveness:

'It does definitely have a place; policing must constantly change and adapt. How can we do this blind? If research can support us in decisions of how we change it can benefit all.'

EC Receptive constable

Conversely, the Traditionalist constables believed it could be of some value in their day-today role, however, this was based on the understanding research ought to be carried out away from the frontline:

RM: ... research can't predict everything. On the frontline, things change in a second and you're dealing with human emotions, stressful situations and no amount of research can predict that.

GD constables

The Autonomous constables were the only typology to remain silent on their openness towards research. They placed limited, if any value, on research and believe existing tactics serve the job well:

'Officers police the way they are used to and if it's not broken don't fix it. What is needed is more officers on the streets with less obstacles to stop them doing their job'

EC Autonomous constable

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⁴⁶ As discussed in Chapter Five, within the constables' Q data, the dominant viewpoint was that of the Receptive constables (28% variance), followed by the Autonomous (9% variance), and finally, the Traditionalist constables (5% variance).

Constables expressed two recurring themes during the group discussions when asked to consider their openness more broadly. Firstly, that research and the researcher may have disingenuous motives for carrying out the research to begin with. Aarons *et al.*'s (2010) study assessing mental health and social service provider attitudes toward EBP describes this phenomenon as 'appeal'; where an adopter finds the research intuitively appealing. Conversely, it is equally possible that a negative perception of motive may also influence officers' views towards future research encounters similarly. Research motive is woven throughout the latter discussions within this thesis but is typified by the discussion below:

RM: It depends who's doing it. It depends what you're trying to achieve and if you're just changing for changing's sake.

RM: It's like a project that's been given to somebody. Just to get promoted.

That's the thing, isn't it?

GD constables

Therefore, whilst these constables appear open to using RBTs, this comes with the caveat that the research motive is genuine (as defined by the officer) and not, for example, just "changing for changing's sake", or as means of securing 'goodwill and approval' by reflecting the values of senior officers to enhance an officer's prospects of promotion (Fleming, 2020, p.169).

The second theme relates to the influence of effective research communication, which appropriately explains the purpose of the research to secure what officers describe as 'buy-in', epitomised in the discussion below:

RF: I am [open], as long as somebody can come out and explain them to me, rather than just say, I am this person and I've decided this, and this is what you've now got to do.

RF: Because we always have questions, don't we?

RF: I want to know what that person's experience is as to how they've come to do this.

RF: But the thing is, you don't deliver it with as much passion. Because it's like oh, here we go, another project. And so that delivery, you haven't

got that level of passion. Whereas today, this is set up, you'll deliver it with a bit more [passion].⁴⁷

GD constables

This discussion reveals the importance placed by constables on face-to-face communication to allow them to decide for themselves if the research (and the researcher) have genuine motivations. The constables also reflected upon the importance of being able to ask questions of the researcher, and for some, their wish to be involved in research may extend *only* to asking questions, to better understand the research at a functional level to secure their buy-in.⁴⁸

6.2.3. Conclusion of officers' views of openness to research

In answering RQ₁, 'To what extent are constables and sergeants open to research in frontline policing?', the findings of this study indicate, in general, that officers are broadly open to research within their workplace. They are open to using RBTs, and to a lesser degree, carrying out and evaluating research in their workplace.

Constables' openness is focused on research that improves the effectiveness of their practices in *their* role. For some constables, research should occur on the frontline; for others, it should be undertaken by staff at an organisational level. Caveats to openness include considerations of motive and transparency in communication around the research. The findings also suggest that the perceived value of the specific tactic or research for the frontline officer's role may influence constables' level of openness towards research.

Findings from the constables' data arguably present practical implications for future research. If officers have been exposed to research they believe has disingenuous motives, their future buy-in may be challenged by this initially negative experience of the research they encountered. Given the recent momentum of research in police practice, officers may already have tarnished research views, which may be difficult to change (see Hunter and May, 2019). Research motive and communication issues are essential factors to consider when securing

⁴⁷ Here, the officer appears to reconcile my motives as a researcher as being genuine with my 'experience' and ability to explain the rationale for the study. It is unclear whether the 'experience' referred to is as a former officer, researcher or as a combination of both. However, at the time, I viewed this as an implicit reference to my experience as a former officer, aligning with my then position as an 'outsider-insider' (Brown, 1996, p.1).

⁴⁸ See MacQueen and Bradford (2016) as an example of where communication issues contributed to the implementation failure of an RCT in the ScotCET trial.

constables' buy-in for using RBTs, an issue similarly observed by Macqueen and Bradford (2016).

For most sergeants, whilst their openness towards research is apparent (and to a greater extent than the constables), the emphasis at this rank is nevertheless placed on experience over research. There are several potential explanations for this greater level of openness, including role flexibility and the ability to influence research involvement. For example, the sergeant's role affords greater flexibility in deciding which policing activities occur on a day-to-day basis compared with constables. Sergeants primarily direct the latter as the 'custodians of constables' (Butterfield *et al.*, 2004, 2005). Furthermore, sergeants are more likely to influence research focus and their involvement with this at a strategic level, given the 'strategic slant' of their managerial responsibilities (Butterfield *et al.*, 2005, p.336). However, while these are potential explanations from the literature, sergeants did not directly identify these themselves. Instead, they define their openness as being determined by the influence that research can have on their practical, day-to-day role.

However, whilst openness to the concept of research is important when considering officers' overall receptivity, so too is understanding the inherent value they place on research. For research to be effectively implemented, and, more importantly, embedded within frontline practices, Alpert *et al.* (2013) argue that sustainability is fundamental. These findings suggest that sustainability is likely linked to officers finding research compatible with and invaluable for their daily role. The following section focuses on answering RQ₂ and explores the role officers believe research should play in frontline policing.

6.3. The Role of Research in Frontline Policing

Findings from the survey demonstrate a difference between constables and sergeants in research's role in frontline practice. While the survey revealed a consensus between both ranks (that research and RBTs have a role within each rank's function), it also highlighted that sergeants believed in this role to a greater degree (84.6% sergeants to 64.5% constables; see Section 4.3.3). As observed with *openness*, when asked to consider the role of research, officers' views differed both within and between the ranks, indicated in the survey data and the typological differences. The following section explores these differing views and offers an explanation of the variations observed between the ranks.

6.3.1. Sergeants' views of the role of research

Closer consideration of the combined sergeants' data from the survey and QM presents a convergence in the data towards the role of research in their role. They broadly agreed there is a role for RBTs and this was reflected in the survey findings where 81.5% of sergeants strongly agreed or agreed that RBTs have a role in frontline policing, compared to 64.8% of constables (where SSDs were observed in responses between the ranks). Consideration of these results in conjunction with the Q data provides a more nuanced understanding of the differences observed between the sergeants in their views of the role of research in practice.

Turning to the QM findings, although the three sergeants' typologies aligned regarding role, there were differing reasons for this. Firstly, the Pragmatist sergeants' point of view was that policing is too complex to be driven solely by RBTs and that the practicalities of the frontline role require most importantly operational rather than research experience (see Section 5.2.4).

'It should be from previous experience, knowledge and general day-to-day policing.'

EC Pragmatist sergeant

For some sergeants, research has a role to play, but this is an ancillary one which ought to support and not replace the existing tactics that they believe to be effective:

RM: No, I think it's a positive because we're more open to look[ing] at new things. But I don't think we should throw the baby out with the bathwater, and I think we have lost some of the good stuff in pursuit of new stuff. It should evolve and progress as opposed to change.

GD sergeants

In the discussion below, sergeants converse about the appropriateness of replacing existing tactics if they are shown by research to be ineffective:

RM: Do you think if the research showed that pretty much everything, we do we do it for the wrong reasons and it gets the wrong result, would you replace it completely if it showed that?

RM: We don't know what it would show but f it did show that we'd done everything wrong, we've got to be open and say okay, we do it all wrong, let's start again. We never really look at the outcome.

GD sergeants

Similarly, in the discussion below, sergeants display varying opinions about the role of research. One officer suggests there is a need to develop new tactics from scratch, another that existing tactics can be developed in line with 'current research', and another that research has a greater role elsewhere in the organisation:

RM: ... I would be wholly for starting again because I think we often do things just because we've done them [before].

RF: It's important to keep what we've got because we've learnt it through practice over the years ... but back it up with current research.

RM: However, research can't necessarily help you deal with a violent man or a domestic and stuff like that. What's got to be done has got to be done. The research is more relevant as the investigation goes on.

GD sergeants

This discussion primarily demonstrates the complexity of the views on research in the frontline role. Secondly, it reinforces the role of operational experience when dealing with policing incidents.⁴⁹ In this case, the sergeant suggested that the role of research ought to be in the investigatory stage, following an initial response to a DV incident. Research has a role to play for these sergeants, not necessarily in their frontline response. Despite this, there was a recognition that research has a function in evaluating whether existing tactics are effective or can be 'backed up' with research evidence.

Like the Pragmatist sergeants, the Traditionalist sergeants, whilst believing in a broader role for research in frontline policing, did not see this as a day-to-day role, instead perceiving that its influence ought to be kept to a minimum. These sergeants do not believe police work can

⁴⁹ Once again, the example where operational experience is identified as being important is when dealing with a domestic violence incident. Arguably, the nature of DV incidents require officers to draw heavily upon experiential knowledge to support their responses and decision-making.

be codified, because in their view, policing situations are highly individualised and therefore 'too complex to apply a formula' to. This view is exemplified in the comments below:

'Policing is still developed over years, [it is] not something that can be developed out of research.'

EC Traditionalist sergeant

'Not all policing can be academically driven. It is too complex to apply a formula.'

EC Traditionalist sergeant

Whilst agreeing there is a role for research in policing more widely, these sergeants believe research should not complicate an already complex undertaking (frontline policing) and that frontline policing incidents cannot be 'solved' through the use of research:

'Most 24/7 incidents – DV and violence are dealt with by knowledge, presence and not research.'

EC Pragmatist sergeant

Thus, whilst the Pragmatist and Traditionalist sergeants agreed on these more general views, namely that research has a role to play, their differing views centre around what role it *ought* to play in frontline policing and the topics or situations it would be valuable for.

Conversely, the least dominant group, the Receptive sergeants, in believing that research has a definitive role to play in frontline policing also believe that they and their officers should be expected to use RBTs:

'Research is vital to consider how we might improve. It is vital – we cannot continue doing things like we used to.'

EC Receptive sergeant

"... everyone should be open to new ideas which research could identify."

EC Receptive sergeant

For these sergeants, the role of research is vital in helping to develop evidenced-based practices for the future, and presumably change:

'We do things with no foundation other than "experience": a more evidence-based approach is needed.'

EC Receptive sergeant

'Research does have a part to play in policing [we] need to look at new ideas.'

EC Receptive sergeant

'Using 'experience' of the past alone is insufficient for future development ...'

EC Receptive sergeant

For some sergeants, however, there is the view that experience does not necessarily have to be mutually exclusive to research, thus revealing an acceptance amongst some that research can, and ought to be, intertwined with operational experience (Fleming and Rhodes, 2018). For these officers, experience has the potential to be enhanced by research, since they view their current experience to be insufficient for dealing effectively with present policing problems. For some sergeants, this experience ought to be blended with research, or as described by Fleming and Rhodes (2018, p.18), research ought to 'weave' with experience to improve working practices. In the discussion below, the emphasis is placed on the quality of tactics from research:

RM: I think it should only be expected if there's any weight or value to them.

RF: There's no point just using stuff because we've paid for the research, even though it's not that good. It doesn't work. We'll still use it.

GD sergeants

Yet despite identifying a need for research in their role, the Receptive sergeants, like the Traditionalist and Pragmatist counterparts, also firmly believe RBTs should not be allowed to drive all frontline practices. They, too, assert the importance of knowledge from operational experience in dealing with the complexities of frontline policing (Holgersson and Gottschalk, 2008; Gundhus, 2012). The Pragmatist sergeants were particularly vocal in expressing this opinion, as the exit comments below illustrate:

'Policing is complex and should not be driven by one factor.'

EC Pragmatist sergeant

'From previous experience, knowledge and general day-to-day policing.'

EC Pragmatist sergeant

'Don't believe research should drive practices as each incident is unique and what works for one won't work for another.'

EC Pragmatist sergeant

So, whilst sergeants within this study believe there is a role for research in policing more widely, what that role ought to be, and how it should be defined is viewed differently between the typologies. What is not in dispute, however, is the continuing importance of operational experience for frontline officers:

RM: They shouldn't be based solely on academic stuff to drive practices. It should be based on knowledge and experience.

GD sergeants

'Policing is still developed over years not something that can be developed out of research.'

EC Traditionalist sergeant

This dichotomous view – namely that research and experience cannot be combined – may pose a challenge to research implementation, particularly since, as shown in this study, it forms a core component of the dominant viewpoint of sergeants.

In summary, for the least dominant, Receptive sergeants, the role of research is viewed as a means to improve ineffective frontline practices which, in their opinion, are not presently fit for purpose. Research can and ought to be shared and interwoven with operational experience for these officers. For the dominant Pragmatist and Traditionalist sergeants, research has a role to play, but one which should be situated away from the frontline, thereby allowing officers to deal with frontline work. Arguably, these opinions are based on the sergeants' perception of their role and what it entails on a practical, day-to-day basis.

Whilst there was some agreement among sergeants that there is a place for research in frontline policing, its characteristics and the depth of its involvement were disputed. As discussed, the Pragmatist sergeants agreed that research has a role in paring out ineffective frontline practices, but they are less convinced of its general role in day-to-day policing activities. They believed that operational experience is more significant for shaping frontline policing. The Traditionalist sergeants agreed research has a role to play, but this role is in policing more widely and not on the frontline.

The overarching themes which emerged from the sergeants' views relating to the role of research are that it should have a supportive capacity away from the frontline (Pragmatist sergeants). It is a means of improving police effectiveness using evidence-based tactics (Receptive sergeants), and it should be removed altogether from frontline activities with limited interference in everyday activities (Traditionalist sergeants). In conclusion, the majority consensus among sergeants is that the role of research lies outside the frontline policing role. The following section explores constables' understandings of the role research ought to play in their workplace.

6.3.2. Constables' views of the role of research

Like the Receptive sergeants, the dominant Receptive constables also strongly believed that academic research has a role to play in frontline policing. This view, however, was tempered with a perception that research should not drive all frontline practices.⁵⁰ To a certain extent, they believed that officers should be expected to use RBTs, but they remained unconvinced as to whether research should play a greater role in deciding which tactics are used on the frontline (see Section 5.3.4):

'It does definitely have a place – policing must constantly change and adapt. How can we do this blind? If research can support us in decisions of how we change, it can benefit all.'

EC Receptive constable

'Research has to form the basis of future policing.'

EC Receptive constable

For the Receptive constables, *role* was a future-based concept, which can help generate '*new ideas*' to '*form the basis of* and '*support a better frontline policing*' for the future. This suggests that the use of research and the results of using research within their working environment is yet to be seen for these constables. These officers also viewed research as a supportive tool and as something which, alongside operational experience, can help to improve their working practices:

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⁵⁰ As discussed within Chapter Five, within the constables' Q data, the dominant viewpoint is held by the Receptive constables (28% variance), followed by the Autonomous constables (9% variance), and the Traditionalist constables (5% variance).

RM: These should sit like hand in glove. The two together.

RF: Because otherwise we'll just become an academic force. We'll have taken away the personable stuff, won't we? We'll feel a bit like we're just books spurting information to people.

RM: The common-sense approach. Absolutely.

GD constables

Yet, whilst the Receptive constables believed the role of research was to support them, they too, like the other constable typologies, expressed the 'complexities' argument. That is, police incidents are complex in nature, and research cannot account for the unique characteristics of every incident. Comments which typified this recurring view included 'can't predict human behaviour/emotion/behaviour', 'will not account for some of the more "surreal" incidents' and 'unique'. For constables, operational experience has a more significant role to play than research since it enables them to adapt their response to what they encounter within the 'real world'. This view emerges strongly in the exit comments of the Receptive constables:

'Academic research is vital but does not always reflect the real world.'

EC Receptive constable

'Frontline needs experience and cannot always be research-driven, research can't predict human behaviour/ emotions/ behaviour.'

EC Receptive constable

Therefore, the reliance upon experience, even for the Receptive constables, who deal more frequently with incidents than sergeants, is arguably more important. Hendriks and Hulst, (2016, p.13) describe officers adapting their skills to deal with different policing situations as 'cultural "tap-dancing" – swift, flexible and improvisational shifting – at various levels of active policing'. This may help to explain why within the survey findings, constables believed less than sergeants in the role research has to play in frontline policing:

RM: Doesn't always translate in the real world, does it?

GD constables

Like the Receptive constables, the Autonomous constables (the second dominant viewpoint) agreed to a certain extent, that research has a role to play in frontline policing. However, they

did not believe research should drive all frontline practices, or that it should play a more significant role in deciding which tactics are used. Therefore, for some constables, research was viewed as having a minor role in frontline policing and an even lesser role in their everyday work. The comments below help to explain why they felt this way, further emphasising the recurring theme that experience is the most effective tool for dealing with the complexities of their role:

'I believe having the experience of working as a police officer cannot be beaten.'

EC Autonomous constable

These constables disagreed that research can be applied to incidents at the individual level in a one-size-fits-all approach. As they see it, they need flexibility to deal with each incident as it presents, and as such, may be resistant to research when it is proposed as a 'solution' to dealing with policing situations. Comments such as 'too complex to apply a formula' exemplify this opposition, and further echo what has been observed earlier in this study, namely that knowledge learned from hands-on experience is likely to be viewed as having greater value than research:

'Officers should not have to use RBTs ... hands-on experience cannot be beaten.'

EC Autonomous constable

These constables reluctantly accepted that research has a place in frontline policing but spoke of the need for, and importance of, operational experience developed over time. This may be because they have yet to encounter research in the workplace or they may be wary of something perceived as new being introduced within the role.

The Traditionalist constables also believed there is a role for research in frontline policing, where RBTs should support but not replace existing tactics. However, like the Autonomous constables, they did not believe that it should drive all frontline practices or play a more significant role in deciding which tactics are used. They did not believe officers should be expected to use RBTs in their role (see Section 5.3.6). Whilst there is a role for RBTs in the Traditionalists' workplace, this is not necessarily a more significant role. Their comments explain that research should not dictate a place in their tactical repertoire per se:

RM: No, I think it is okay as it is personally.

The Traditionalist constables agreed there is a role for research but that it should be kept to a minimum. This is because they too, like the Receptive and Autonomous constables, prioritise the role of operational experience in frontline policing:

'Policing incidents cannot be covered by tactics designed in the classroom.'

EC Traditionalist constable

'Police experience is a craft which is learned over a long time.'

EC Traditionalist constable

'Learn how to get good results through experience, dealing with all social groups over time.'

EC Traditionalist constable

The Traditionalist constables related the consolidation of their operational experience to dealing with complex incidents and 'social groups over time' suggesting the role of local knowledge in developing experience and learning (Fleming and Rhodes, 2018). Officers expressed unease about the ability of research tactics to be transferred effectively from one area to another and successfully implemented in a new area:

RM: ... so research has shown that hot spot patrol worked really well in Boston or wherever it was. Have they done any research with people of [Town A] to go oh, do you think this is an idea? Because they won't.

RM: Yeah, let's implement that straight away.

RM: That's a frontline technique ... We'll say we've done it, but we never hear anything back from it.

GD sergeants

Research by Fleming and Rhodes (2018) found evidence of scepticism towards research transferability and implementation. Furthermore, Willis and Mastrofski (2017, p.14) in their study of craft culture in two American police departments found officers were 'less enthused about abstract findings, gathered by researchers from afar'. Similarly, Kalyal (2018, p.9) conducted interviews with Canadian police executives and senior civilian officers to explore

factors influencing receptivity to EBP, and found that 'officers do not reject scientific evidence per se but believe that generalizations cannot be applied to police work which varies from case to case'. These findings suggest research and tactics which appear to have been 'dragged and dropped' into their locality may be met with some suspicion or resistance (similarly observed in the study by Fleming and Rhodes, 2018). Effective communication with frontline officers and explanation of the purpose of the research may help to alleviate some of these issues.

In summary, constables mostly agreed that there *is* a role to be played by research in policing. Where this role ought to be was undecided. The dominant viewpoint espoused by the Receptive constables was that this role ought to be in frontline practice, but they were unsure what form this would take. The Traditionalist constables believed that it should be away from their everyday role, but that it has a role in informing frontline practices. The Autonomous constables resolutely believed that research has no fundamental role in frontline policing. However, one shared opinion was that operational experience has a greater role to play on the frontline, given the 'complexities' of their work.

6.3.3. Conclusion of officers' views of the role of research

In answering RQ₂, 'What role do constables and sergeants believe research ought to play in frontline policing?' the findings of this study indicate a set of mixed responses both between and within the ranks.

When considering the role of research, Constables concentrated on the practicalities for them in their role, for example, how they might best use RBTs to assist their practices. Conversely, because of the dominant viewpoints, the sergeants mostly believe that research has a broader role in policing, but not necessarily in frontline activities. Therefore, on the one hand, whilst most constables and sergeants agree that there is a role for research (reflected in both the survey and Q results), on the other hand, they display significant divergence in opinion between the two ranks on what and where this role ought to be.

Given this divergence between the ranks, the role of research is understood differently depending upon rank. Constables believed the role of research ought to help them in their frontline role. The sergeants believed the role of research ought to be away from frontline policing. Stockdale's (2015) study of officers' understandings of restorative justice (RJ) found that senior managers had a more nuanced and philosophical understanding of RJ, whereas middle management (sergeants) were more concerned with the practical implications of RJ.

Frontline workers were concerned with the process of how to 'do' RJ. This continuum is similarly observed within this study where sergeants were more concerned with the practical implications of EBP, and constables were more concerned with the process, that is aspects of how to understand and 'do' EBP.

Whilst policing teams will always consist of officers with a range of views and opinions on different issues, consistently differing opinions based on rank, may present challenges to the long-term adoption of research.

6.4. The Value of Research in Frontline Policing

The preceding discussion focused on the openness of frontline officers towards research, and the role they believed it ought to play. The following discussion considers the value that officers place upon research in their role and explores how officers believe research and RBTs may be useful to them. In seeking to explore officers' understanding of research value, the survey and Q-statements asked participants to consider the value of research to their day-to-day role, the need for research to assist them in what they do, and the helpfulness of research.

The two survey statements were designed to measure officers' opinions towards the value of research and RBTs asked officers to consider its value to their everyday role and how much they needed to know about research. Responses to these statements suggest a range of opinions within and between the two ranks.

In response to the *value* survey statement which asked officers to consider the value of research in their everyday role, sergeants were one and a half times more likely to agree with this than constables (67.7% compared with 36.8%). Therefore, the value of research to an officer differs depending on which rank they hold. The second survey finding also presented differences in opinions within the same rank however: for constables (and sergeants to a lesser extent), value was placed on the tactics themselves, not the research. For sergeants, value was placed on the research itself, and a need to know about the study, not just the effectiveness of the tactics in policing situations. The third finding (see Section 4.3.6) revealed that a third of officers from both ranks were neutral regarding their need to know about the research. Several pertinent explanations for this level of neutrality exist, namely a misunderstanding of the statement, a lack of sufficient knowledge to rank the statement (i.e. that they don't know) or a genuinely neutral view towards the statement (Sturgis *et al.*, 2014). Nevertheless, combining the data from both statements shows generally that sergeants

believe research and RBTs have value in their role. Constables are less convinced of the value research holds and believe more strongly that they do not need to know about research, just how to use RBTs.

The value that officers place on research in their role was addressed within the Q strand of using the topics of helpfulness of research to their role, the need for research and the need to know about research.

6.4.1. Sergeants' views of the value of research

The dominant Pragmatist sergeants believed research had some value when dealing with everyday policing incidents. However, others did not necessarily agree there is a real need for research which supports frontline officers in what they do:

RM: Some of it [is of value], yeah. I don't think it's totally negative. We were doing it anyway.

RM: Academic research ... it adds meat to the bones.

RF: It formalises it; it provides justification. Because you can actually turn around and say sorry, Village A, but we're not patrolling you because the academic research suggests that we should patrol Town B's Town Centre as a hot grid.

GD sergeants

The Pragmatists agreed to a certain extent that research is of value to them in their everyday roles but were unsure whether RBTs are helpful to them in their everyday role. This is not necessarily because they are opposed to RBTs in principle (they are open to using them and believe they have a role elsewhere in the organisation), but because they may be unaware of the different types of RBTs and how these might assist them in carrying out their role.

This potential explanation is discussed below:

RF: I think we maybe should have that in the [dis]agree. Because we don't really know if they're helpful to us at the minute, do we?

RF: We haven't really been told about anything and there's very little on that.

GD sergeants

This offers the explanation that a neutral response to the survey statement may be due to a lack of knowledge concerning how to respond to the statement sufficiently, as opposed to a 'genuine' neutral response. This is useful because it helps to shed light on the reasons for neutrality in officers' survey responses, which is not possible using the survey results alone.⁵¹ Beyond this, the Pragmatist sergeants believed first and foremost that operational experience is more valuable than research to frontline officers. They also strongly felt that policing is a craft, not a science, but this was to a lesser degree than the Traditionalist constables. This strength of feeling is exemplified in their comments below:

'Dealing with incidents gives you the best practice rather than research. 'ON THE JOB'.'

EC Pragmatist sergeant

'Operational experience most valuable, more effective than RBTs.'

EC Pragmatist sergeant

'Good police officers are natural to the role and 'get' what is needed to be done'.

EC Pragmatist sergeant

Unlike the Pragmatist sergeants, the Traditionalist sergeants believed that research has no real value when it comes to dealing with everyday situations and that there is no real need for research that helps frontline officers in what they do. They believe the role of research is best situated away from the frontline because for these sergeants policing is multifaceted and cannot be 'solved' using research-based methods:

'Every incident is different as people and officers are not robots, officers have to read a situation quickly and adapt to it.'

EC Traditionalist sergeant

'Research-based methods can make suggestions re: best practice but the decisions must ultimately be based on human factors.'

EC Traditionalist sergeant

The Traditionalist sergeants were also unconvinced about whether research is helpful to them in their role, suggesting that officers who share the Traditionalist viewpoint are likely to make

⁵¹ With hindsight, the addition of a survey statement examining levels of officers' exposure to research and RBTs would have been helpful here in clarifying whether the hesitancy towards the value of research was indeed based on a lack of knowledge or exposure to research and RBTs in the workplace.

up the 'neutral' group observed in the survey data. When relating their views towards *role* and *value*, firstly, they did not value research in their frontline role because they believe research is better placed elsewhere in the organisation. In the discussion below, sergeants discuss research as more suited to, and therefore of greater value to, the community policing role than the response role:

RM: ... it's probably more in your field as an NPT sergeant, that research would fit more because it's more small-time stuff. But the 24/7 side of things is so fast and dynamic ... say like how we deal with domestics. I suppose they could do research into that which would then lead to the way we deal with them in the future. So, it's like Neighbourhood policing.

RM: And it's more the longer-term problem-solving... A basic example from when I was a PC at [Town B], there was constantly things being thrown at cars from a bridge, and the police were there all the time. The NPT went across, looked at it, realised that if they heightened the fence, get the rail board people ... to raise the fence and take away the rose bush, the kids can't then chuck things over the edge. And then suddenly stopped. So, the 24/7 was going to it, but it was the NPT who looked at the problem and then solved it.

GD sergeants

Therefore, for these sergeants, the value of research is within a community policing environment, where it can be used in 'slow time' and is linked to 'longer-term problem solving', thereby lessening the demand on 'frontline' officers. These sergeants (as response sergeants) perceive their role as the '24/7' or the emergency response to policing incidents and do not consider the community policing role to be emergency response. This alludes to an understanding that the '24/7' policing role is different to other policing roles.

Despite this, the survey results did not show SSD between the opinions of response officers and community officers in their responses to any of the statements. This suggests that an officer's role (response or community) has no significant bearing on their views towards research (see Section 4.3) and that officers from both roles share a similar range of opinions across all aspects of the study.

When further analysing the Traditionalist sergeants' views towards *role* and *value*, it appears that they valued research less because they place a greater value on operational experience when dealing with 'complex' incidents:

RM: Certainly, [in] my current role, it's 24/7. You go to a pissed-up bloke who's just chinned his wife – you cannot research that, can you? You've just got to use your knowledge and your presence.

GD sergeants

Similarly, in the discussion below, sergeants refer to 'gut instinct' and tacit knowledge as having greater importance to them in their role:

RM: Sometimes you've got to go with your gut.

RM: You can go into the exact same environment but with a different person and it changes, it's massive.

RM: It's probably a similar argument, decision-making, do you work logically, or do you go with your gut instinct? Because actually those mental shortcuts are quite good ...

GD sergeants

For these sergeants, operational experience or 'gut instinct' is inextricably linked to how they view the frontline policing role. They view it as a 'fast and dynamic' working environment in which research value is surpassed by experience. This suggests that those sergeants who share Traditionalist views towards the value of research likely represent the 23.1% who remained neutral in response to the statement, and the 9.2% who disagreed with the research value.

The least dominant Receptive sergeants, on the other hand, shared more robust views on the sub-theme of *value*, consistent with their views towards openness and role. These officers believed that research has real value when it comes to dealing with everyday policing situations, that RBTs are helpful to their role, and that there is a real need for research to support frontline officers in what they do, viewing research evidence as important for change:

'We just do things because we always have with no input from anyone outside the organisation.'

EC Receptive sergeant

'This is a systemic problem in policing. We do things which don't work and don't do things which do work?'

EC Receptive sergeant

'We do things with no foundation other than "experience". A more evidence-based approach is needed.'

EC Receptive sergeant

While the Receptive sergeants spoke of a need for frontline policing to become more 'evidence-based', they also reverted to understanding operational experience as being more valuable to them in their role than research. More importantly, they did view research as compatible with their role. For the sergeant below, the value of research is clearly understood because they have had the experience of 'having been involved with it':

RM: It's valued, certainly valued to me, because I'm interested. Having been involved you can see the benefit, and how we do things that either don't work or haven't been shown to work or just to be more effective.

GD sergeants

In summary, the survey and Q findings suggest sergeants generally believe research is of some value to them in their everyday roles. They are, however, less convinced of its inherent worth and how helpful it might be. The Pragmatist sergeants believed in research value but away from frontline duties, and they value operational experience more. The Traditionalist sergeants believed it has no value for the 'complex' frontline and is better suited elsewhere, leaving them to use their experience. The Receptive sergeants believed research has real value and ought to be immersed within frontline duties, in all aspects of their policing role.

Despite this divergence of opinions, however, sergeants converge around their views towards the value of operational experience to their rank and role, as has been frequently observed throughout this chapter. However, these opinions were not voiced as strongly in response to *value* compared with the *role* of research. This is likely to be because the role of research relates directly to their own rank and role, and forces consideration of how research relates to this. What is also apparent is a genuine divide in opinion, also reflected in the sergeants' survey results, thereby confirming the study's findings.

6.4.2. Constables' views of the value of research

Responses to the survey statements suggested a clear divide in constables' opinions relating to the value of research for their role and whether they place more value on the research or the resultant tactics. Within the survey, more constables agreed (36.8%) than disagreed (23.5%) that research is of value to them in their day-to-day role but more significantly, a high number remained neutral in their response (39.8%). The reasons for this neutrality will be considered in the context of the Q findings. Constables were much less likely to agree on research value when compared with sergeants (36.8% and 67.7% respectively). Overall, constables were less convinced of the value that research has for them in *their* role, and this presents further evidence there are different understandings between the ranks concerning research compatibility with the job role. Constables also expressed a need to see that RBTs work, rather than needing to know about the research. For the constables (and sergeants to a lesser extent), value to the role is placed on the tactics themselves, not the research.

Turning to the Q findings, the Receptive constables (unlike the Receptive sergeants who believed research is both of value and helpful to them in their day-to-day role) were unsure of its value and helpfulness. However, they strongly perceived a need for research that supports frontline officers in what they do. So, whilst being decidedly open to using RBTs in their role, and firmly believing there is a genuine need for research which helps them in this role, they were unsure of the benefits these could bring. This raises two important points. Firstly, those who share the Receptive constable viewpoint likely form part of the sizeable neutral group within the survey. Secondly, unlike the Receptive sergeants, these constables do not necessarily have an understanding of the value research might bring; rather they have a belief that it will be beneficial to policing in general:

'Research is vital to the future of modern policing. We police with consent and must be seen to be valid and for our work to be helping with issues to continue that.'

EC Receptive constable

'Academic research has some value in policing.'

EC Receptive constable

'Research is of value if implemented properly.'

EC Receptive constable

These officers spoke more broadly of a need for research to improve policing for the future, and therefore presumably, a value that it might bring to frontline policing. Reflecting upon their operational experience in the context of value, although these constables value experience over research, they also believe that there ought to be a balance between the two (a finding similar to that of Telep [2017]):

RF: See I don't think it's more. You just need to have a balance. Because every situation is unique.

RF: ... I think it's important based on your experience. But obviously I'm still open to new methods.

RF: Because you learn from it. Each situation you go into, you learn. You take something new from it ... And I'd do it different next time and you can't beat that ... And even if the research has taken in all these people, that one individual isn't going to fit into that group. So just because it's fitted everybody else to do it that way, that person, isn't going to.

RF: So, you need the experience to know actually, you're not fitting this box, I'm going to deal with you differently.

GD constables

The discussion above supports the assertion of Buerger (2010, p.136) that,

'police are not deductive thinkers seeking evidence of the validity of a grand theory, but inductive thinkers, sorting and adding the cumulative weight of experience.'

Conversely, the Autonomous constables were resolute in their belief that research has no real value when dealing with policing situations, that it is of little value to them in their everyday role, and that there is no need for research which helps frontline officers in what they do. For these constables, the value of operational experience outweighs the value of research:

'As a relatively new officer, my biggest learning experiences have come from dealing hands-on with jobs and not necessarily the theory behind it.'

EC Autonomous constable

'Confidence from having dealt with incidents previously, especially knowing individuals, areas etc.'

EC Autonomous constable

The Autonomous constables remained unconvinced about whether research is helpful to them in their role. Given their strength of opinion towards *openness*, *role* and *value* of research combined, it is reasonable to hypothesise that officers who share this viewpoint are likely to be those who disagreed or strongly disagreed with the *value* statements.

Unlike the Autonomous, but like the Receptive constables, the Traditionalist constables were unsure of the value of research when dealing with everyday incidents. The discussion below illustrates two related and pertinent points. Firstly, officers make links between research value and tactics which they currently use as being directly useful to *them* in their role (for example, community resolutions). Secondly, they recognise that they are not necessarily aware of any research-based methods in their organisation until they stop to consider their existing tactics. This adds further weight to the assertion that constables have insufficient knowledge at present to ascertain whether RBTs are helpful to them:

RM: There's probably more value than we even realise. If you think about it, they've done academic research into community resolutions.

RM: That suddenly, that's a useful thing for us.

GD constables

However, the Traditionalist constables believed to a certain extent that RBTs can be helpful to them in their everyday roles, but did not believe this to be an inherent need since policing incidents cannot be entirely solved:

RM: I don't think incidents can be solved, I think the research can help.

GD constables

As previously noted, the Traditionalist constables felt the most strongly about police work as a craft, and equally as strongly that operational experience is more valuable to officers than RBTs, as exemplified in numerous comments:

'Police work is a unique role, you become a better officer with experience.'

EC Traditionalist constable

'Learn how to get good results through experience, dealing with all social groups over time.'

EC Traditionalist constable

'Confidence [in] dealing with public and incidents under high pressure. Research cannot teach you to be a good cop.'

EC Traditionalist constable

This reinforces the belief among constables (and sergeants) that the human and changeable elements of police work cannot be predicted by research. This was described earlier in this study as the 'complexities' of the policing role and is exemplified in the following:

RM: For me it's because research can't predict everything. On the frontline, things change in a second and you're dealing with human emotions, really stressful situations and no amount of research can predict that.

GD constables

Some officers associate operational experience with a longer career served and believe that as officers attend more incidents, they become more efficient practitioners, as illustrated in the discussion below:

RF: Because of everything being cut, and because all the people who have experience leaving frontline policing, retiring or moving to different departments, you can't rely on their knowledge. You can't rely on a really long time in the job and the old sweats because they've either gone to different departments or retired.

RM: I don't think the knowledge that they have can be replicated by academic research.

RF: No but it might help. You can supplement it, rather than replace it.

RF: Anything to help it would be beneficial. Because I think if we're losing all that experience there needs to be something else to help.

GD constables

This also offers an important insight into a world where officers feel their traditional sources of

knowledge are decreasing, as older, more experienced officers retire or transfer to different roles. These officers suggest that research can help to replace some of this 'lost' experience, alluding to research as being at least as good as operational experience. These officers also acknowledge that there may be a need to gain knowledge from less *traditional* sources (such as research), thus highlighting that officers themselves may now be starting to identify a need for something to fill this knowledge gap.

RM: All the research does is harness a practitioner's experience and competence and expertise ... That's exactly what we're doing now, isn't it, effectively.

RM: ... yeah, it will have to continue because we'll evolve as an organisation and within it individuals will evolve as well, based on obviously new police practices which have been brought in by research. So yeah, there's definitely room for it.

GD constables

In summary, the Receptive constables and Traditionalist constables shared similar views that research *could* be of value and helpful to them in their roles, but they are uncertain of this value. Interestingly, the Autonomous constables were also uncertain regarding the helpfulness of RBTs in their role. This uncertainty around helpfulness is reflected in a consensus item in the Q-sorts, focused around the neutral area of the Q board. More significantly, this uncertainty is reflected in the survey results where there were a sizeable number of constables (39.8%) who remained neutral in their response to the statement 'police academic research is of value to me in my day-to-day role'. Comments from the constables above suggest this level of 'neutrality' may be a result of insufficient knowledge to gauge the value of RBTs, and not necessarily reflective of an apathetic opinion towards research value per se.

6.4.3. Conclusion of officers' views of the value of research

In answer to RQ₃, 'What value do constables and sergeants place on research in frontline policing?', the findings of this study present the views of officers, both constables and sergeants, who generally believe that research *could* be of some value to them in frontline policing activities. However, the qualitative data suggests that officers may be less certain of the value of research, possibly because they are unaware of what tactics are being used around them (also recognised in the work of Palmer *et al.*, 2019). For these officers, it is

argued that the value of research and RBTs in frontline activities is yet to be realised, despite having been in use for numerous years.

In support of this argument, the factors that appear to contribute to the value placed on research in the everyday role are dependent upon officers' knowledge of existing research and an understanding of where research could directly help *them* in *their* role. According to these participants, officer exposure to research appears to be an important factor when considering how to ensure that officers see the value of research for their role. Without this awareness, they cannot decide if research is of value to them. Additionally, a further barrier to raising the profile of research or its value amongst response officers is the view that research is the preserve of others in different areas of policing. Whilst this view might not necessarily be held negatively, it nevertheless presents indirect challenges to encouraging officers to see the value of RBTs in their frontline role.

6.5. Conclusion

This chapter has integrated the findings from the survey and the Q method and has aimed to answer the first three central research questions. In doing so, it has shown that officer views towards EBP and research (or their receptivity as a combination of *openness*, *role*, and value) are based to a certain degree upon the officer's rank. Officers in each rank have their own views on how open they are to research, what role research should play, and what value research holds for frontline policing. Furthermore, there are both shared and disputed views about openness, value, and role within each rank. This presents a complex picture of officer receptivity to research in frontline policing and demonstrates that there is not one linear understanding of 'receptivity'.

Three key findings emerge within the nuanced understanding of receptivity presented in this chapter. Firstly, for the officers within this study, there is a broad openness towards using RBTs and carrying out and evaluating research in the field. Secondly, there is a role for research within policing, but this role might be better placed in other parts of the organisation and away from frontline activities. Thirdly, there is a belief in the value that research *could* bring to frontline policing activities, but this is yet to be seen by these officers. The implications of these three key findings will be discussed in Chapter Eight, where the conclusion of this thesis examines the challenges to research from the viewpoint of frontline officers.

Chapter Seven: Officers' Understanding of the Challenges to Research in Frontline Policing

7.1. Introduction

This chapter is the second discussion chapter and focuses on the challenges to research in frontline policing, from the perspective of officers who participated in this study. It is specifically tasked with addressing the final research question:

RQ₄ What are the potential challenges to research in frontline policing?

Accordingly, this chapter is divided into five sections based on the sub-themes used throughout this thesis (suspicion, communication, supervisor, discretion, and *team*). As in Chapter Six, the questionnaire's findings are merged with the Q findings to provide a final interpretation based on the sub-themes listed above.

The chapter's content adds to what is already known within the existing literature about the potential challenges to research in frontline policing. Firstly, it explores officers' suspicion toward academic research and their views on the role of communication in the research process. Secondly, it examines the supervisor's role in research implementation, followed by the relationship between discretion and research. Finally, this chapter presents the officers' views of the role of the team in supporting the use of research in policing.

7.2. Suspicion Towards Research and the Researcher

The existing literature pertaining to the relationship between police and academics speaks of the barriers between both parties (Lee and Punch, 2004; Bradley and Nixon, 2009; Alpert *et al.*, 2013). This section explores officers' views towards the researcher within their workplace. The 'researchers' considered conceptually by this study include officers, police staff and academics external to the organisation. Three statements were aligned to these researcher descriptors, and officers were asked to consider their suspicion toward research being carried out by the different types of researchers.

Analysis of the survey data designed to explore officers' level of suspicion presented four

notable findings, all related to differences in opinion between the ranks (see Section 4.4.2). The survey findings firstly revealed that a proportion of officers across both ranks were suspicious of research being carried out by the three types of researchers (in the range of 10.8% to 27.6%). Secondly, there were statistically significant differences between constable and sergeant responses, with constables being more suspicious in general than their sergeant counterparts. Constables were most suspicious of research being carried out by police staff within their organisation (27.6%), as were sergeants though to a lesser degree (13.8%). Sergeants were the most suspicious of research being carried out by external academics (13.8%) and the least suspicious of officers (10.8%). Constables were the least suspicious of research being carried out by external academics (20.1%).

Thirdly, significant numbers of officers in both ranks remained neutral in their response to the three statements, with constables tending to select this response more frequently than sergeants (around 30% for constables and 20% for sergeants). Potential explanations for this neutrality include a lack of awareness of research being carried out within their organisation (where sergeants are more aware than constables) or a genuinely neutral opinion towards the statement. Fourthly, despite many officers reporting being suspicious of research being carried out within their organisation, the majority were not (ranging from 45.0% to 48.1% of constables and 64.7% to 72.3% of sergeants).

Considering the Q findings revealed that of the six Q typologies, four of them shared a similar view, namely that they were not inherently suspicious of research and the researcher and indicated agreement with the survey findings. The four typologies were the Pragmatist and Receptive sergeants, and the Receptive and Traditionalist constables. This group of typologies report not being suspicious of officers, police staff or external researchers researching within their organisations. This is reflected in the consensus items between the typologies for these Q-statements (see Appendices Ten and Eleven). The outliers, in this case, were the Autonomous constables who were suspicious towards officers carrying out research but were neutral in their response to research conducted by their police staff colleagues and external academics. Like the Autonomous constables, the Traditionalist sergeants shared a degree of suspicion towards fellow officers carrying out research in their workplace. They were slightly less suspicious of police staff carrying out research and not suspicious of external academics.

The following section considers the officers' responses to suspicion towards the research and the researcher in greater detail.

The Pragmatist sergeants, who held the dominant viewpoint, were the least suspicious of the three sergeant typologies, followed by the Receptive sergeants who shared their views. Their Q exit comments relating to research being carried out by external academics reflect an understanding firstly that researchers from outside the organisation are already at work and accepted. Secondly, external academics bring an objective perspective to the research process:

'Don't have any issues with external agencies conducting research, practices are already in place.'

EC Pragmatist sergeant

'I feel very comfortable having external researchers working in [the] force – more objective.'

EC Receptive sergeant

'I am not suspicious about research being carried out either by police officers or staff as the police service needs to move forward.'

EC Receptive sergeant

The Q-group discussions among sergeants produced significantly fewer comments than those among constables regarding suspicion towards research and the researcher. This is possibly because sergeants, as a group, are less suspicious of research and the researcher than the constables. However, despite a focus on organisational agenda, there is a recognition that an individual's motives are also a cause for suspicion. This is typified in the discussion below in which the research motive is once again linked to improving promotion prospects and is referred to as 'research for research['s] sake':

RF: It might, depending on who the officer is. [laughs]

RM: I don't know, when we're talking about people perhaps getting promoted or something like that ... If I felt it was research for research sake, yeah.

GD sergeants

However, whilst there is recognition of individual research motives for these sergeants, in the following discussion, suspicion was also directed towards the research itself and its perceived motives. The Q-group discussions show overall that sergeants are focused on the motives of the research *itself* as part of an organisational agenda and not necessarily on the individual

researcher's motives. Furthermore, this highlights that officers may have a suspicious predisposition towards future research based upon their prior experiences of 'research' in the workplace. Where officers have witnessed research within their workplace with a predicted outcome, they may be more likely to greet subsequent research with a level of suspicion from the outset:

RF: I'm not bothered, but there's always an agenda behind why they're doing it.

RF: Have they been told by someone up there to come and do it? And is there already going to be an outcome? So, it doesn't matter what I say.

RF: Well, we never fail a pilot in [Force 3]. It always works. 2020 is working [but] when you ask people on the ground it isn't. It's gone a little pearshaped.

GD sergeants

Moreover, the discussion above highlights that if officers are not privy to the research motive or 'agenda' (as is often the case in a top-down approach), where the research purpose or motive has been communicated ineffectively to officers, it may be viewed as having an alternative and potentially suspicious motive. For some sergeants within this study, there existed the view that research (and its results) is manipulated by the researcher, and more widely by the organisation, and cannot be trusted. The comment below advocates for independent research to avoid research results being manipulated internally:

RF: In all fairness I'd agree with that, having worked on projects, because they do bend and twist things to fit what they want. So, I always think it is better if it's just external and people come in and go this isn't good, this isn't good.

GD sergeants

Other sergeants supported the notion that external academics are best placed to carry out research, as a means of ensuring transparency and organisational independence:

RF: I agree with that because we have our own cultures and our own thoughts already in place as people who work in an organisation, and a

fresh set of eyes will be really beneficial to look in, rather than looking out.

GD sergeants

However, whilst some sergeants argued that research ought to be carried out by academics external to the organisation, other sergeants within this study believed research within policing ought to be a mix of police and external academics as a 'best of both worlds' approach. Steinheider *et al.* (2012) in their study of researcher-practitioner philosophical differences in policing suggest that research methodologies which favour collaboration, such as action research in which the research and practitioner are involved in 'problem diagnosis, action-planning, action-taking and evaluation', can 'maximise the respective knowledge of both sides' (2012, p.369). Additionally, Wood *et al.* (2014) in their RCT study of foot patrol, as an intervention in hotspot policing, found that officers who had not been involved in an experiment's design phase could contest the nature of an experiment, thus highlighting officer involvement in this phase as an important factor in securing 'long-term compliance and treatment fidelity' within the experiment itself (2014, p.377).

In this study, responses to the Q-statement 'police academic research is best carried out by external academics' elicited numerous group discussions amongst sergeants about research as a collective effort. This is exemplified in the discussion below:

RM: I think it needs to be a mix. There needs to be an element of public opinion and unbiased research, but with knowledge and skills of cops.

RM: Got to have a balance.

RM: I would agree, it needs to be carried out by academic researchers but in quite in-depth consultation with the police.

GD sergeants

These sergeants go on to discuss the need for external researcher involvement to avoid what they perceive to be the manipulation of research results by internal researchers:

RM: I don't particularly think it would be good if we start doing the research, because again, it's just like us saying, we know about all that. Just tell us how to do the research.

RM: We've always done it right ... what do you know? We're getting it right. You just make the research fit what we want to do.

RM: That's right. We'll change the research. We'll do 300 Q-groups until it just confirms ... yeah, I know we're doing it right.

GD sergeants

Similarly, the discussion below reflects the view that for these sergeants, officers could play an initial role in identifying areas for future research through '*in-depth consultation*' which external researchers could then go on to research:

RF: I think sometimes you can be too ingrained in your role too. It's really beneficial sometimes to take a step away and look in with refreshed eyes or an outside view.

RM: ... it's all very well identifying, I don't know, marginal issues. But I think your frontline officers can identify your big cost savings and your efficiencies. For me, for what's causing issues or what needs to be looked at.

RF: I think it's a bit of both ... you should listen to people on the ground and have fresh eyes looking in, take those two perspectives and use them together ...

GD sergeants

As has been discussed within this section, the survey and Q findings revealed that most sergeants were not suspicious of research or officers, police staff and academics as the researchers. For those sergeants who were suspicious of research, their suspicion was directed towards the agenda or motive of the research itself, and not necessarily towards the researcher. Sergeants are also suspicious of research that they perceive to have predetermined outcomes. They believe that research is best carried out by external academics to ensure transparency and to avoid what they perceive to be organisational manipulation of research results and findings. Sergeants within this study also advocated frontline officer involvement in helping to inform the types of research that take place in frontline policing.

Unlike the sergeants who offered limited insight into their suspicion towards research and the researcher, the Q-statements generated significant interest among constables. This interest

reflected constables' more significant levels of suspicion towards research and the researcher overall in both the survey and Q findings compared with the sergeants.

The survey findings revealed that 48.1% of constables were not suspicious of research carried out by police staff, 45.0% were not suspicious of officers, and 42.8% of constables were not suspicious of research being carried out by external academics. The Q findings also demonstrated that constables are not, in general, suspicious of research and the researcher. The Receptive constables (the dominant viewpoint) and the Traditionalist constables shared the same viewpoint and were not suspicious of research being carried out by officers, police staff or academics within their organisation. These constables viewed researchers as a way of bringing in research expertise to improve frontline policing, exemplified in their Q exit comments:

'To aid the force and bring their own experience to this.'

EC Receptive constable

'I believe research is needed to improve general day-to-day frontline policing to keep us effective, up to date and save money and time.'

EC Receptive constable

On the other hand, the Autonomous constables were suspicious of research being carried out by officers but were neutral in their response toward police staff and academics. While many Q participants did not show a significant feeling towards the Q-statements (reflected in the general absence of Q exit comments more broadly), it is evident from the Q-group discussions that constables have a muted opinion on this. The following discussions offer further insight into the views of constables who *are* suspicious of research and the researcher.

Responding to the Q-statement, 'I am not suspicious of research being carried out by police officers within my organisation', the first issue raised by constables was research motive. Research motive, as a theme, has been observed throughout this study and is exemplified in the comment below:

'I think research is conducted by officers looking for promotion for their own benefits.'

EC Autonomous constable

In the comment above, using research to secure promotion is perhaps suspicion centred on the individual's research motive. The motive of self-gain as a cause for suspicion features frequently in the constables' Q-group discussions. In the discussion below, the researcher's motive is described once again in connection with promotion:

RM: ... I'm very dubious. Their motives, not necessarily the research.

RM: Are you suspicious of the research? It all depends on what it is, doesn't it?

RM: Well yeah ... the motives behind the research. Have I picked a topic just to go for promotion or have I picked a topic because I think it's going to make a difference to comms [police department]?

GD constables

Moreover, promotion as a research motive is discussed below, with the potential consequences of this suspicion clearly outlined as officer avoidance, lack of commitment to research involvement and annoyance:

RM: I mean not massively, but I think people are doing it generally for promotion, for their own ends.

RF: Or they are protective of the department that they've come from or are currently within ... sometimes it's genuinely good, but I just think it influences it. So, if you want it to not be negatively or positively influenced, then I'd stay away from that, would be my take on it.

RF: It's suspicion. It pisses you off. Because you just want to do your job. It holds you back. Your heart's not in it ... And you don't take it seriously. You just think you're playing at it ...

GD constables

Therefore, there was an emphasis placed on promotion as a research motive for constables, not observed in the sergeants' comments to the same extent. A possible reason for this is because sergeants, by virtue of their rank, have already achieved promotion, unlike the constables. Furthermore, constables' suspicion towards officers conducting research may be inextricably viewed for this purpose, namely aiding promotion.

For some constables, the individual's motives for carrying out research were not the only motives which may be subject to constables' suspicion. In the discussion below, the research motive is towards a preordained 'end product':

RF: Sorry, I'm not suspicious of research being carried out by police officers within my organisation.

RM: I am. It's the same level of suspicion for all research. You don't know what the motives are, you don't know what the end product is.

GD constables

From further Q-group discussions relating to suspicion towards research carried out by officers, constables revealed a suspicion towards research where they believe the outcomes are pre-planned or as one constable describes below, 'doomed to succeed' (Fleming and Wingrove, 2017):

RM: ... I'm not suspicious. If research is going to happen, why would I be suspicious of a colleague doing research?

RM: I think as long as the research is done well, and it is supervised right ... having said that, it's whether or not the rigour is there, because if they're then doing it because they want to prove something ...

RM: Yeah, doomed to succeed.

GD constables

More significantly, however, is the recurring theme of the organisation's motives for carrying out the research in the first place, and specifically, what one officer describes as a 'desired' outcome to the research:

RM: I am [suspicious] ... because I think internal research will be designed to give a desired outcome.

RM: The organisation will want the research to say something, so the research will be geared to say what they want it to say.

GD constables

This discussion speaks of suspicion towards a preconceived result, with an emphasis placed upon 'making research fit'. On several occasions within the Q-group discussions, constables referred to staff surveys as examples of internal research, where research is designed to fit an intended outcome, as the following discussion illustrates:

RM: I think you only have to look at the staff survey. Staff surveys [are a] very research-driven document.

RM: ... They get nowhere near the amount filled in that they should do. And that tells a tale in itself. I think everybody's suspicious of what's going on research-wise.

RM: I'm suspicious of the end product, what's the end product?

GD constables

These comments highlight a challenge for organisational research: when constables view existing pieces of internal research, for example, staff surveys, with suspicion, organisational research in the future may be treated with the same level of suspicion from the outset.

Whilst constables were not inherently suspicious of external academics carrying out research in their organisation, the survey findings discussed in Section 7.2 suggest that there are still a significant number of officers who were (27.6%). This is not necessarily reflected in the Q findings, which show that two of the three constable typologies were not outwardly suspicious of police staff and external academics.⁵² The Q-group comments revealed that for some constables, there was a belief that a relationship with external academics can command a greater level of trust than they have in research generated by their organisation for its own 'agenda'. This dynamic is exemplified in the comment below:

RM: Like I said, I trust external ones more than I do internal and their agenda.

GD constables

Furthermore, in response to the Q-statement, 'Police academic research is best carried out by external academics', as can be seen in the discussion below, other constables believed

⁵² There were, however, levels of suspicion towards police officers carrying out research observed across both ranks in the Q findings (see Section 7.2).

that transparency and organisational independence are essential in ensuring that research outcomes are not 'made to fit' the desired outcome of the organisation:

RM: In my opinion there's a greater degree of trust with external researchers than with police, police tend to make things work rather than them actually work.

RM: I think the research is done but to a point. The [police] research it to a point ... and then they implement it. Rather than go beyond it and see what contingencies there are. They go until they get the answer they want.

GD constables

However, despite these positive comments highlighting the benefits that external academics can bring, many negative comments were gathered in the constables' Q-group discussions. The larger number of negative Q discussion comments relating to external academics adds weight to the survey findings, which indicated that over a quarter of constables *were* suspicious of external academics (27.6%). The discussion below shines a light on some of the reasons for this suspicion and focuses on two key themes.

The first theme relates to what constables perceived to be predetermined research outcomes. When discussing external researchers, constables in several separate groups used terms such as 'making research fit', 'trying to prove or something that they're trying to show exists' and 'some people do research with an agenda'. Constables' suspicion towards a perceived pre-planned outcome has been demonstrated in previous comments where constables have described the research as 'doomed to succeed' (Fleming, 2020). Exemplified again in the discussion below, constables discuss research being used to 'back up a point' rather than being exploratory from the outset, associating this with external academics as the researcher:

RM: I'd agree with it as long as it's not think-tank research that's coming with an agenda anyway. I think independent research is fine. But some people do research with an agenda.

RF: Where it's come, who it's come from. Who's commissioned it.

RM: I've consulted, but we're doing it anyway.

RF: Because research can often be there to prove a point or something. It can be used to try and back it up. As opposed to it just being, I'm going to research this, it generally tends to be a point that they're trying to prove or something that they're trying to show exists or whatever ... So, ... no offence, but before anybody sets out on doing a piece of research, they've already got an idea of what they're trying to prove or disprove.

GD constables

The second theme relates to the level of involvement of officers to external academics. Like the sergeants who placed significant weight on an equal ratio of officer to academic involvement in research (see Section 7.2), some constables spoke of the need for an equivalent mix of officer and academic involvement as a means for each group to bring their own skills to the research 'table'. This indicates that a Participatory Action Research (PAR) approach may be appropriate for officers who hold this view (see Wood et al., 2008 and Marks, 2009:

RM: Because each brings a different thing to the table ... there's advantages to being a civilian and doing research and being a police officer ...

GD constables

However, in acknowledging the need for a mix of officers and external academics, most of the constable Q discussion comments were focused on academics carrying out the research, but with input from those undertaking the role, namely the constables themselves:

RF: I do, and I don't agree. Because I think there should be police input.

RF: Yeah ... no disrespect to somebody at university, but if you've never been in a policing background and you've just read lots of books about something and decided oh, they must be really struggling with this, let me go and do some research about it. Well, no, come out and talk to us. Then go away and do your research when you've had some input from police to find out what you need to research.

GD constables

Similarly, in the discussion below, constables bear reference to officer 'knowledge and experience' as being essential to the research process when external academics are involved:

RM: It depends on the individual. But I think the situation as well, I like the fact that officers that have got that other element of knowledge and experience can apply that too ... Like what you're doing ... You being on one side and now obviously you're doing all that research, you've got a true view of how it actually operates out there.

RM: But where there's no understanding at that level, then that's problematic.

GD constables

Some constables went further in suggesting that external academics (presumably without policing 'knowledge and experience') are unlikely to be able to understand the frontline policing role and its demands, and therefore require officer input to inform the research:⁵³

RM: I'm not sure some of them would have the mental capacity to understand it. I think we should have an input.

RF: Definitely ... we should be asked. But I don't think it should be left to ourselves.

RF: But we should have an input. We ain't very bright generally speaking, are we? [laughter]

GD constables

Therefore, for those constables who were suspicious of external academics, the Q discussion comments reveal a deep-rooted suspicion toward research carried out by external academics because academics do not have the operational experience to understand what the police role entails (Kalyal, 2019). For these constables, anti-intellectualism also features as a barrier to research:

RM: People who are coming in and telling you what to do. Super-duper academic, but not having street knowledge. Then Jonny Degree telling us how to do our job.

GD constables

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⁵³ Wood *et al.* (2014) highlight the importance of involving officers in the design phase of an experiment to help to identify potential pinch points between the confines of the experiment and officers' responses, which could arise during an experimental phase. They also highlight the need to 'acknowledge and integrate officer knowledge in the design of sustainable interventions' (2014, p.362).

In response to the Q-statement, 'I am suspicious of research being carried out by external academics within my organisation', several officers highlighted my new position as an 'external researcher', or what Brown (1996, p.181) describes as an 'outsider insider'. These constables identified my previous experience as a police officer as being of benefit to the research process:⁵⁴

RF: I'd say probably we talk to you more because you used to be a cop than if you just came in as a pure academic, you've probably got more credibility.

RM: You can tell.

GD constables

The constables in the discussion above refer to 'credibility', and in the discussion below, my 'understanding' of the realities of being an officer, as of benefit to the research process. Moreover, this discussion shows how their suspicion towards me was allayed precisely because I had previous knowledge and experience of the job:

RF: I didn't have suspicions, but I had no idea what the research was about. I wasn't suspicious about it. But when the organisation sends out online surveys that's a different kettle of fish. But it was more reassuring because you've got a policing background as well. So, if I had any suspicions, as soon as you were presenting it to me, as soon as you declared your background, I was more reassured by that. I thought here's somebody who knows what they're talking about straight away.

RF: Because you understand as well. You've got that level of understanding.

Already half of the job has been done.

GD constables

Despite some suspicion towards external academics, constables, when asked to consider the statement, 'Areas for future academic research should be identified by frontline officers

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⁵⁴ In highlighting my 'insider' status, I felt happy being recognised as someone who 'used to be a cop' and the credibility this afforded me. However, I also felt conflicted that I did not wish to be recognised in my new role as a researcher (outsider), arguably harking back to the 'them and us' mind-set of police occupational culture (Waddington, 1999; Reiner, 2012).

carrying out the role', reiterated that practitioners with operational experience ought to have some role in identifying which areas require research because they understand the role:55

RM: So, we should identify whether the research needs to happen. If it's just us on our own, then no. If it's a mixture ... yes.

RF: We're out there doing the job and we know what's needed to improve.

GD constables

RF: Yeah. I would to a point, but then sometimes we don't have the knowledge of the bigger picture, which academics do. So, it should be a mix of the two really ... But we are probably best placed to identify areas which research is needed around for our role.

GD constables

However, for these constables, the identification of areas for research was clearly associated with what they perceive to be the genuine motive of pursuing 'better frontline policing':

RF: I think police officers like us will give a true reflection as to the problem because we want ... better frontline policing. If it's an internal body, say civilian role, then I'd be more suspicious. But if it's police officers like us, on the ground, on the frontline, I would have no suspicions at all.

RF: Yeah, I suppose it would depend [on] who's doing it as well.

RF: Because I think it will be more effective because it's internal ... we'll tell it like it is because we want the change. We're the one it's affecting the most. So, I believe that if it's frontline officers it will be more effective.

GD constables

This section has presented the constables' views about suspicion towards research and the researcher in their workplace. The survey findings agree with the Q findings in that the constables, like the sergeants, are not suspicious of research and the researcher. Despite this, as discussed at the beginning of this section, the survey findings did reveal that

⁵⁵ Similarly observed by Fleming and Wingrove (2017) in their evaluative study of an EBP training programme.

constables are more suspicious than sergeants to a certain degree. For constables who were suspicious, this section has identified the following findings. Firstly, this suspicion is likely to be directed toward the individual motive of the researcher and is often associated with an officer's use of research to aid promotion (similarly observed in Fleming (2018)). Constables viewed this research motive as 'false'. Secondly, like the sergeants, constables were suspicious of research that they perceive to have predetermined outcomes (also observed in Fleming and Wingrove (2017)). Constables described staff surveys as examples of internal research with predetermined outcomes. Thirdly, some constables within this study believed that external academics are best placed to carry out research to ensure research transparency (Hartmann et al., 2018). However, not all constables subscribed to this view and some were concerned that external academics will work alongside the organisation to make research findings and outcomes 'fit' an organisational agenda. The constables also voiced considerable concern that external academics do not have enough knowledge or understanding of their role to carry out research in frontline policing. For the constables, their operational experience ought to be used to 'guide' external academics in conducting research in their workplace where it is to occur.

When considered together, officers' comments highlight a broader concern regarding the transparency of the research and its underlying motives. This related to the organisational motives for carrying out the research for the sergeants. The constables were less concerned with what they perceived to be organisational motives for research and were more concerned with individuals' motives for carrying out the research, specifically fellow officers seeking promotion. The individual motive did not concern the sergeants presumably because they have already been promoted. Where the motives of the research or the researcher are in doubt, particularly if the researcher is a fellow officer, the research is likely to be met with levels of suspicion and cynicism. This is because officers place value upon honesty and transparency in research motive. This finding concerning the influence of perceived research motive and the officer as the researcher is interesting (see Section 7.2). Any research project underpinned by a motive, whether organisational or individual, perceived by officers to be disingenuous is likely to be met with suspicion and resistance by some officers. Both ranks believed that research carried out by external academics is one way of ensuring some organisational independence and transparency. Constables, however, believed that external academics cannot carry out research relating to their world of work without the constables' input and guidance.

These findings have potential implications for any researcher seeking to conduct research within a policing environment. The most significant barriers to overcome would appear to be

a perceived research motive at the organisational level, followed by individual research motive. The involvement of external academics in research may help alleviate some of the suspicions towards research motive, though this is with the caveat that frontline officers are involved in the research process at a consultation level.

7.3. Communication

The existing literature presents the dual role of communication in the implementation and adoption of research: it conveys the benefits of an EBP approach from an organisational perspective and for securing officer buy-in to research and use of RBTs in the field (Sherman, 2015; Snyder *et al.*, 2019). In doing so, it also highlights the ongoing structural and organisational issues associated with 'communication, consultation and co-operation' between researchers and the police (Fleming, 2010, p.139) and poor communication of research information to officers in police organisations (Lumsden and Goode, 2018; Hunter *et al.*, 2019; Kadry, 2019; Mazerolle *et al.*, 2022).

In this research, the sub-theme of *communication* focused on officers' views concerning the provision and depth of explanation about the use of research and RBTs in the workplace. This was explored using three statements: the first considered officers' potential engagement with research when the purpose was explained; the second, the use of RBTs; and the third, officers' views about access to information on RBTs. The questionnaire statements focused on the provision of explanation.

The survey findings presented no statistically significant differences in responses based on rank, suggesting a broad agreement in opinion (see Section 4.4.3). A statistically significant difference was observed in one statement based on HLAA. Of the three questionnaire statements, the strongest opinion was shown towards the statement related to the increased use of RBTs by officers where the purpose of the RBT had been explained (78.8% of constables and 89.2% of sergeants) (compared to provision of explanation of why officers were being asked to use the tactics (67.4% constables and 78.5% sergeants). Kadry *et al.* (2020) similarly found in their study of officers' views towards successful strategy implementation, that officers viewed effective communication as a way to secure buy-in and avoid resistance to change. The questionnaire findings revealed that it is more important for officers within this study to have the RBT's purpose explained, as opposed to just being told why they are being asked to use it.

The Q-statements further addressed the provision of explanation for both the *purpose* and *use* of research. Two further statements considered the communication of the origins of the research and the amount of detail that ought to be communicated to officers. The Q-statements were focused on both the provision and depth of explanation.

The Q findings revealed that all six typologies agreed effective communication regarding research purpose and the use of RBTs was important. This indicates a confirmation between the survey findings and the Q findings across both ranks. Whilst the survey and Q findings demonstrated that most officers believe the communication of the purpose, use and effectiveness of research is important and likely to influence their use, there is less of a consensus as to what depth of explanation is necessary. This section focuses on exploring the role of communication and the depth of this provision.

For sergeants within this study, the importance of communication is two-fold: to provide sufficient details about the research to secure 'buy-in', and to avoid officer resistance to it. The Pragmatist sergeants strongly agreed about the importance of being told why they are being asked to use RBTs, and they believe that officers are more likely to use where the purpose has been clearly explained. The Traditionalist and Receptive sergeants agreed with this to a lesser extent. Ultimately, sergeants perceive that effective communication helps to make staff feel valued, and assists with implementation:

RM: Simply because it's part of the change process and the inclusion of people and the information passed to people will help that process take place.

RF: I think it partly values them, doesn't it, as well.

GD sergeants

Whether directly or indirectly involved, being part of the research is clearly important to sergeants. Additionally, for some, clear communication helps to avoid what one sergeant describes as 'pushback' or active resistance towards the use of RBTs:

RM: ... if I'm being told to use a tactic specifically, I want to know why, and I want to know what the basis is for it. I very much thrive on empirical data and I struggle with airy-fairy thought that's got no research behind it. And like that park, walk and talk thing, I get told put this park, walk

and talk thing on there and make sure people do it. I need to know why. I'm not just going to do it and try and sell it to people ...

RM: I can't do it without knowing what the research is behind it. If you can't explain it to your staff, you're going to get friction with it, and you're going to get push back from the staff ... it's only through transparency that you don't get that pushback.

GD sergeants

In their study of officer views towards domestic violence risk assessments, Grant and Rowe (2011) found limited buy-in from frontline officers because they did not understand the role they played in the process. This is similarly reflected in the findings of this study also:

RM: If you show these are all the benefits that are associated with it. You're more likely to get the buy-in.

RF: And people will jump onboard with it and support it, rather than put that resistance up, which I think a lot of cops do. They just think you've told me to do something, I don't get why you're asking me to do it, so I ain't doing it.

GD sergeants

Continuing with the theme of practical considerations, some sergeants also suggested that it is not just about what is communicated, but how this is delivered:

RF: And there needs to be that trust as well. So, if you pick somebody to deliver that they trust already who's from within their group, and ... they can explain and then can ask a stupid question, they don't feel stupid. That's really quite important and that'll cascade through. I think that was some of our problems with TS1 [local initiative]. We didn't have very good ground communication.

GD sergeants

The discussion above suggests that research communication may be better received if it is relayed by a peer 'within their group'. Communication of rationale to secure 'buy-in' to research and RBTs is also reflected in the discussion below:

RM: I think it's good to understand why you're doing things for loads of reasons, mainly to get the cops to do it. Because you'd want to be able

to tell them why they're doing something ... and if someone knows why they're doing it, they'll do a better job. But if no one's telling us why we're doing it, we can't tell them.

GD sergeants

In a practical sense, beyond achieving buy-in and reducing research resistance, officers cannot be expected to buy into research if they are simply unaware of it. For these sergeants, communication regarding research is essential to assist in its effective adoption and implementation because it helps to explain the rationale and thoughts processes which sit behind the introduction of new practices:

RF: If we haven't been on any courses or we haven't been told about what research is going on...

RM: It does make a difference ... having seen what's happening behind the scenes, that I know frontline cops haven't seen. And I know the investment in it, and I know the motivations behind it. And I know that the organisation wants to make cops more capable on the streets. And they see this as one of the methods. But cops wouldn't necessarily see that.

RM: If they don't know about it, how are they expected to buy into it?

GD sergeants

Relatedly, Macqueen and Bradford (2017, p.2) in their study of a research implementation failure of an RCT found that effective communication with officers who are implementing experiments in the field 'is critical to gaining trust and "buy-in" and to fielding a successful experimental intervention'.

As well as the frequent references to buy-in, hierarchy and the following of orders were also often referred to by sergeants when discussing this topic, suggesting that officers are aware that buy-in does not necessarily mean willingly since policing remains a hierarchical organisation where compliance can come through the issuing of orders:

RF: It's not down to communication. We're just a number now, they don't care what our opinion is. It's a case of we're doing it, tough.

GD sergeants

In the discussion below, sergeants debate following orders, and the idea that officers are more likely to question what they are being asked to do 'nowadays':

RF: ... we're not ... just [doing] things blindly. We do like to know why we're doing something.

RM: We do like to, but if you're told to do something you just do it.

RF: We used to just do something, there's a bit more resistance nowadays from people.

GD sergeants

From this discussion it can be seen that whilst there is a recognition that officers are more likely to question what they are being asked to do, the discussion comment below highlights that the following of orders, is still expected by some:

RM: ... you don't need to know everything. You don't need to know the theory behind everything. Some things yes, but not everything, just crack on. By the time you ask loads of questions about it you miss the point, just get on and do it, will you?

GD sergeants

Interestingly and seemingly contradictorily, some sergeants remained neutral in their response to officers needing to know in-depth details of the research. A potential explanation is that some officers will want to know in-depth details of the research, whilst others do not:

RM: Some will want more. I was thinking about cops buying into it. Because I can almost see myself ... like what are you talking about? And I don't think it'll be good enough to just say we're doing it, because there's some academic research, so just accept it.

RM: Why am I doing what I'm being told to do? Some cops want to know.

They don't tell them the details.

RM: Lots don't. Lots will just do as they're told.

GD sergeants

Stockdale (2015), in a study of police understanding of RJ, found that middle managers recognised a need for officers to be given enough practical information to understand the tactic being deployed. Within this study, some sergeants believed that the providing detail and the opportunity to ask questions may help to foster a sense of the research's value among officers:

RM: They need to know, it's the same as the bosses turning around and saying this is what you need to do, you need to ask questions. They don't need to know in-depth ...

RM: ... But they need to have an understanding of where it's come from, to give it some value.

GD sergeants

In summary, for the sergeants, effective communication of research purpose is essential for securing 'buy-in' from their staff to avoid what they describe as officer resistance to research and RBTs. This finding agrees with the work of others, for example, Telep and Lum (2014, p.377), who argue that officers who 'believe their experience and street-level knowledge are being put to good use, are more likely to buy in and cooperate' with research. They concur that too much in-depth information is unnecessary, but that background details about the research purpose help provide an adequate explanation for their staff. Sergeants believe that communicating with their staff regarding research demonstrates that they value their staff and the research itself. They acknowledge that not all staff will want to know the in-depth research details and that some constables are likely to want to know more than others. However, they want to be able to provide this information where appropriate and needed. Furthermore, there is recognition that policing continues to be a hierarchical organisation where officers ultimately continue to follow orders.

In turning to the constables' responses to the survey and Q, it is important to note that all of the four Q-statements were consensus items suggesting a broad agreement across the ranks. Firstly, the Receptive and Traditionalist constables share similar views on communication, strongly agreeing that officers ought to be told why they are being asked to use RBTs and that where the purpose of such tactics has been clearly explained, officers are more likely to use them. The Autonomous constables also agree with both Q-statements but to a slightly lesser extent.⁵⁶

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⁵⁶ Their agreement is reflected in consensus Q item 8 – 'It is important for officers to be told why they are being asked to use RBTs' and item 19 – 'Officers are more likely to use RBTs where their purpose has been clearly explained'.

The two discussions below exemplify specific nuances in the constables' views regarding their need for explanation.

For some constables, there is the belief that officers are likely to use RBTs simply because they have been 'told to' and are following orders, where the supervisor's exercise of power in this regard is viewed as legitimate (Kingshott, 2009):

RM: ... if you're just told to do something, you're more than likely going to do it. I don't question everything I get told to do.

RF: Because you still need it explaining because if someone says to you do this, I wouldn't just do it.

RF: Yeah. You need to be able to see the benefit of it.

GD constables

Like the sergeants, constables also shared the view that officers no longer necessarily follow orders without question and recognise that it is more acceptable for officers to seek understanding and clarification regarding something they are being asked to do:

RM: ... I think cops before, we used to blindly follow ... like supervision said go that way, and you went that way without thinking. Now it's changing, and I think people are starting to ... especially police are starting to change. And if you understand it, it's better for them. And they will do it more if they understand it. I mean it's still a disciplined service and you will do what you're told. But the more you're talked into it ...

RM: You're told to question now all the time, like from the moment you start.

GD constables

The constables within this study agreed that officers need to know if they are being used to carry out research within their organisation,⁵⁷ referring to the ethical implications of such participation:

'I think it would be unethical not to tell officers if they were being used for research.'

EC Traditionalist constable

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⁵⁷ Reflected in consensus item 32.

Moreover, within this discussion, officers debate the need for consent, transparency of research motive and communication of research aims:

RM: Because I think if you're getting used in research you should be told about it and have the chance to consent to it as well. I just don't think you should be researched without you knowing about it.

RF: It would maybe help ... it would help explain why they're making you do it. Rather than just saying you have to do this every day. You'd be more amenable to doing it if you knew why you were doing it.

RM: I saw that through an ethical point of view.

GD constables

On the other hand, the sergeants do not refer to ethical implications in their discussions related to this statement.

When considering the statement, 'Officers do not need to know if they are being used to carry out research within their organisation',⁵⁸ in a similar way to the communication of research implementation and purpose, like some sergeants, some constables indicated they would want to know, whilst others would not:

RF: I think we're more accepting if we knew ... the reasons ... what we're doing and why. We like to know why we're doing these things.

RM: Sometimes we have to do them either way.

RM: There's quite a lot of officers that just want to know what time they're going home and when they're going to get something to eat, they'll just happily do whatever they're told to do ... As long as they know those two things ... there'll be a lot of happy bobbies.

GD constables

In summary, the constables' findings revealed that they do want to be informed about research use and purpose, and the research is more likely to be viewed as acceptable when officers have been more informed:

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⁵⁸ Reflected in consensus item 8.

RF: I think we need to know anyway because if you know why something's happening, you're more open to accepting it. I want to know what's going on for me, I want the knowledge and then I'll be open to accepting it. I might not agree with it. But if I know about it, I know about it ...

RF: And the idea behind it. You're more likely to buy into something if you've been part of it.

GD constables

While preferring some explanation, the constables nevertheless expressed different degrees of concern about this. For some constables (specifically the Traditionalists), it is important to have in-depth details:

RF: Yeah, I want to know. I want to know where they've got all the information from and how it's been worked out to design, to make me confident enough that I'm happy to go along with it.

RF: Yeah, somebody like you stands in front of me and says I did this, and this is what I found out. This is how I found it out and these are my results. I don't want some fancy paper that I've got to really read ... I just want somebody to come and tell me.

GD constables

Reflecting on the comments above, where officers do want details, they would prefer for this information to be communicated face-to-face, presumably to help them assess whether the motives of the research and the researcher are genuine (see also Section 6.2.2):

RM: And if we just put a paper together, none of us will read it.

RM: And the ones that do read it won't understand it because it's too above our heads. So, it needs to be presented really simply for us and then we'll get it.

GD constables

RM: As we've said a thousand times already today, we don't communicate what the research is, why the research has been done, in a way that bobbies understand.

GD constables

For Autonomous constables, in-depth detail was not necessary. As demonstrated below, knowing the in-depth details of research is unnecessary because it may add further complication to what they describe as 'an already high-pressure job'. This suggests that for those who subscribe to the Autonomous viewpoint, the addition of more detail is unnecessary for officers in the context of their daily roles:

'Makes things more complicated in an already high-pressure job.'

EC Autonomous constable

Other constables (Receptive constables) remained neutral in their response about whether officers need to know about in-depth detail or just that the tactics help them in the role. Since the Receptive constables were neutral, it is likely from their response that they want both explanation *and* to know the tactics are effective (the Q-statement does not allow for this type of answer).

However, despite a lack of agreement as to the depth, the constables broadly agreed they are less concerned with the depth or detail of that explanation. They believed that officers do not need to know the in-depth details of the research or the origins of RBTs; they wish to know if they are effective:

'If there is a better tactic to make me better at my job – great!'

EC Traditionalist constable

'As long as it makes my job easier, I don't care where it's from.'

EC Receptive constable

In summary, the combined survey and Q findings revealed that the constables, like the sergeants, believed strongly in the importance of research communication. While the constables believe some depth of detail is necessary when introducing research and RBTs to their workplace, they also acknowledge that individual officers will require different levels of knowledge. For some constables, there is also a distinct understanding that their role requires them to follow orders, and as such, they do not need to question or ask for a more in-depth explanation. For some, the additional explanation overly complicates their job. For others, there is a need to know additional details about the research to gain their support or 'buy-in',

and they would prefer this explanation to be delivered in a face-to-face context instead of receiving it in a written format.

The survey and Q findings revealed that both ranks share similar opinions regarding the value of communication in research implementation when considered in totality. Sergeants value the importance of communicating with officers to secure officers' 'buy-in' to RBTs. Telep and Lum (2014, p.377) similarly observed this in their study, arguing that officer buy-in and cooperation can be secured where officers 'believe their experience and street-level knowledge are being put to good use'. However, within this study, sergeants do not believe in-depth details are required but believe greater 'buy-in' is likely to encourage officers to do a 'better job' if they understand the rationale for using RBTs. On the other hand, while valuing some communication, Constables do not believe being informed about the research will secure their 'buy-in' per se. For constables, there is an understanding that their role involves following orders, and therefore they do not necessarily need a full explanation of the research. This is an important distinction because the combined Q comments and Q-group comments highlight the underlying subtleties of the different views based on rank. These subtleties would remain unexplored if based upon the survey results alone. Significantly, the findings illustrate the current presumptions about what constitutes effective communication (or research transparency). This blanket approach to research implementation methods may be insufficient in addressing the underlying issues of receptivity which differ by rank.

In conclusion, the sub-theme of *communication* has demonstrated the crucial importance of communicating to officers about ongoing research and change and involving officers in this communication to interact with the people delivering the information and expressing their views (Erwin and Garman, 2010). For sergeants, effective communication is a means of securing buy-in from their officers. For constables, communication regarding research is about satisfying themselves of the purpose of the research. In terms of the amount of detail officers feel they should be provided with, constables are less concerned with in-depth details and more interested in knowing which tactics can be shown to work or are effective in helping them in their role. Officers, in general, are not concerned with where such RBTs originate from; rather, they are effective in helping them in their role and improving the service they provide the public.

For the researcher, these findings offer insight as to how officers view communication and the importance they place on this.

7.4. Supervisors and Research Use

Whilst the literature on police management indicates that rank-and-file officers hold different, role-related, sub-cultural values and beliefs to those in senior positions (Reuss-lanni, 1983; Rowe, 2006), it also recognises that sergeants are increasingly identifying with 'management rather than the "street" (Butterfield *et al.*, 2005, p.334). In much of the earlier literature, the relationship between the manager and the managed is characterised by distrust, where the latter are suspicious of the motives of their supervisors and management (Trojanowicz, 1971; Lipsky, 1983; Reuss-lanni, 1983). As has been discussed throughout this study, in the context of EBP, suspicion towards a supervisor's adoption of RBTs may influence an officer's commitment and buy-in to it.

Within this study, the sub-theme of *supervisor* explored the officers' opinions of supervisors' motives for using and implementing research. The questionnaire statements focused firstly on the motive of career promotion, and secondly on supervisors' engagement with research when measurement by performance indicators is involved.

The survey findings revealed that most officers believed supervisors are likely to implement RBTs if it is considered beneficial to their promotion prospects or linked to performance measures (no SSD between responses by rank). Constables viewed promotion as a motivation for using RBTs more strongly than sergeants (67.4% compared with 61.5%). Similarly, constables agreed that their supervisors would use RBTs more when measured by performance figures (53.7% of constables compared with 49.2% of sergeants). Despite a general agreement with both statements between the ranks, there were some neutral responses. This level of neutrality was relatively equal for both ranks (24.2% of constables and 23.1% of sergeants). Significantly, 32.6% of constables and 29.2% of sergeants were neutral in their response to performance measures as a motivating factor for the use of RBTs. There were no SSD between responses based on HLAA, although those officers qualified at PG level and above tended to agree more significantly with both statements ((above 83%).

The Q-statements regarding supervisors' motivations for using RBTs were the same as the survey items. Examination of the Q typologies and their responses to these statements revealed three distinctive groups, the first of which incorporated four of the six typologies, representing most of the officers within this study. This group consisted of the Traditionalist and Receptive constables, and the Traditionalist and Pragmatist sergeants. These four typologies were all in strong agreement that supervisors are more likely to carry out research and use RBTs if it meant they would improve their promotional prospects, and if measured by

performance indicators. The second distinctive group was the Autonomous constables, who also shared the view that supervisors are likely to implement research if it is beneficial to promotion prospects. They did not extend this agreement to using RBTs to satisfy a performance measurement function, possibly because they themselves are unmotivated by performance figures. The third and final group were the least dominant viewpoint, the Receptive sergeants, who disagreed that supervisors are more likely to use RBTs if beneficial to their promotion or if such tactics are linked to performance indicators.

Overall, when considering the survey and Q findings together, it is apparent, given the levels of agreement across both statements from both ranks, that there is an agreement between the two sets of data suggesting broad confirmation of the findings. The discussions below present officers' views in response to these statements, demonstrating that despite their broad agreement, they have differing reasons for these views.

For the sergeants in this study, using research to improve promotion prospects was viewed as a means for officers to set themselves apart from other candidates:

RF: I think that will be somebody that's a 50/50 bet for a promotion. The skills, that bit extra over Joe Bloggs or whatever.

GD sergeants

The sergeants did not necessarily view using research to assist with promotion as a negative practice, and instead view it as a 'means to an end'. In the following discussion, sergeants describe the strategic use of research or research projects as not necessarily a 'bad' thing:

RM: I think if there's a project you think you can get involved in that might help you, it might look good for the future, then yes. They'll probably support it.

RM: Not every supervisor, but the majority would. If it's going to help them, ideally, they want to get promoted. It's not going to harm you.

RM: If something's going to help them. It's not trying to say that thing's bad. It's just saying if you do such and such it will help your promotion. Most people to be honest are going to do it.

GD sergeants

For these sergeants, using research as a means of looking 'good for the future' to aid promotion is something that many officers may consider. The use of phrases such as 'good for the future' and 'if it's going to help them' suggests that the sergeants are aware of these factors and do not overtly describe these motives as inherently harmful. Fleming (2018, p.16) similarly observed officers' views of new ideas implemented by senior leaders and management as simply a 'springboard to promotion'. Cynicism towards change initiatives is reflected in other discussions, where officers describe being suspicious of research carried out by other officers (see Section 7.2). Some sergeants believe quite strongly that, beyond senior managers, their peers would also cynically 'jump on anything' (research projects) to suit 'their own little agenda' of securing promotion:

RM: ... anyone will jump on anything as long as it's to their own little agenda.

I think if you look at how many people have been promoted from learning and development, force performance and force modernisation.

So, for me if you can go into an interview and talk riddles to people and talk bullshit, you'll get promoted. [laughter]

RF: Yeah, I think you've got a point ... you can get anyone to sell anything if there's something at the end of it.

GD sergeants

Nevertheless, any commitment to carrying out, taking part or implementing research is likely to be diminished if viewed as an unauthentic purpose to support an officer's promotion. Despite this negative view of involvement with research, sergeants point out that not *all* officers would use research purely to secure promotion (presumably themselves included):

RF: It depends on the individual really. Not me.

RM: Well, that's you. Generally, I think people do sell their soul. If people want something, then they'll do whatever they can to get it. People change.

RF: Come and do it. [laughter] Is it all worth it for three stripes?

GD sergeants

Whilst acknowledging that not all sergeants would use promotion for their gain per se, the comments reflected in these discussions suggest that research associated with promotion is

viewed negatively. One sergeant describes this as officers selling 'their soul' to secure promotion:

RM: I think we're all laughing at it. Because I think we all looked at it immediately and probably thought some people do. Some people when they're going for promotion will steer towards that. Try and get a project or something. Others don't. Like others will just continuously do it.

GD sergeants

In recognising 'not every supervisor', 'others don't' and that it 'depends on the individual', these sergeants arguably make up some of the 23.1% of neutral sergeant responses to this questionnaire item.

While most sergeants agree that supervisors are more likely to use RBTs linked to promotion, they do not necessarily believe this to be a negative endeavour, arguing that some supervisors will be motivated by promotion, but equally, some will not. Regarding the use of performance measures, a lack of group discussion data prevents any further exploration of why sergeants (according to the survey results) believe supervisors will use RBTs were measured by figures.

On the other hand, Constables had stronger feelings about the use of research to secure promotion or enhance performance figures. They were more vocal in their Q exit comments and their Q discussions, and the following examples help to explain why they feel more strongly in response to their supervisor's motivations for use of research and RBTs:

'It is borne out time and time again that people drive for promotion then drop the ideas they instigate on reaching their goal.'

EC Receptive constable

'Promotion/self-advancement is upmost in supervisors' minds. If implementation leads to promotion, they will blindly go with it.'

EC Receptive constable

'I think a lot of police practices seem to be introduced by someone looking for promotion.'

EC Receptive constable

The Receptive constables' comments demonstrate their belief that officers use research projects to secure promotion and not necessarily for the betterment of policing. Furthermore,

constables in the Q-group discussions elaborate on the Q-statement itself to provide their thoughts regarding promotion, in this case to the rank of sergeant:

RF: We know it happens. It does happen. That's the problem, it does happen, especially around promotion time. It's amazing what comes out. They try and bring in new stuff.

RM: I've seen a load of cops who obviously are just cops and who go with the rest of what other cops do. But when it comes to promotion time, they'll go that one step further to make themselves a little bit better, and you just think it's all false.

GD constables

A recurring theme from the constables' discussions focuses specifically upon a perceived change in behaviour or character of those seeking promotion, leading others to view them as disingenuous or, as one constable describes above, as 'false'. Presumably, where there are perceptions that research involvement has been used as an aid for promotion, constables' engagement may be hindered by association. For those officers using research to achieve promotion, their behaviour may be viewed as insincere by those around them. This may distance officers who choose to use research in this way from their colleagues. Consequently, receptivity to the research itself – even when the intention is honest – is likely to become a casualty of this mistrust.

Despite the strong feelings towards promotion as a motive, there was less strength of feeling shown towards performance figures as a motivating factor for supervisors' use of RBTs. Nevertheless, the existence of a performance culture resonated with both ranks and featured heavily in the Q discussions, more so with sergeants than constables, presumably given their supervisory role. Constables agreed more strongly than sergeants in the questionnaire that their supervisor would use RBTs if measured by performance figures (54.5% constables to 49.2% sergeants). Similarly, the Q typology groups for this item suggested that officers, whatever their rank or typology, agreed that supervisors were more likely to use RBTs where measured under a performance regime. There were no constable Q exit comments to explain the potential reasons for why constables believe supervisors are more likely to use RBTs if measured; however, the Q discussions offer several explanations why this may be the case.

Despite a perceived shift away from a performance-driven culture, constables speak indirectly of the ongoing presence of performance measures:

RM: I've been told for years that we're not a numbers-based organisation.

But the first accountability meeting I go into where my inspector doesn't say, "Here's your figures", then I'll stop caring about figures.

GD constables

Constables suggest that their supervisors are indeed driven by a performance culture and the need to prevent 'bosses [being] on their back', as well as a personal motive to 'be the top team':

RF: It depends on your supervisor really. Because they just want good performance. So, they don't get their bosses on their back as well.

GD constables

However, there is also a recognition that not all sergeants would use RBTs to satisfy performance measures, potentially adding to the numbers of those constables who responded neutrally to the statement:

RM: It depends what supervisor you've got though.

RM: Supervisors in general. I think that's life, that's everything. It's just the supervision culture, more than anything else. Because when something new comes in they want you to do lots of them. Because they want to be the top team ... yeah, look what we've done.

GD constables

The constables in the following discussion refer to multiple factors. They discuss the 'culture' of performance and 'survival' within this culture, and also describe supervisors' use of performance for their own motives – 'how far they want to go' – another reference to promotion as a motive for using research:

RM: It depends on the supervisor as well though, but I do agree.

RF: It depends where the supervisor is in their level of service and how far they want to go. [laughter]

RF: ... it's the culture. It's sad. It's all about surviving.

GD constables

The comments do not directly reference why constables and their supervisors feel differently

regarding supervisors' use of research measured by performance figures. However, arguably, this is because sergeants understand there to be an 'unofficial' performance culture alive and well within their role, even if the organisation does not overtly promote this. Alternatively, constables may view the use of performance measures related to RBTs differently from their supervisors because they place a greater value on assessing their performance based on the quality of their police work as opposed to using the 'usually available statistics' such as arrests (Willis and Mastrofski, 2017, p.96). Caution must be exercised when considering these comments, given that both ranks are referring more widely to a performance culture.

For the constables, the findings revealed in a general sense that they are more likely to be suspicious of supervisors' motives for the use of research and RBTs. Constables were most concerned with the false motives associated with using research and RBTs to secure promotion, and they viewed this as a cynical use of research. They also believed that most supervisors would use research to better their promotional prospect, but they were less convinced that most supervisors would use RBTs measured by performance figures. In the latter context, constables believed that some supervisors would make use of RBTs to enhance how their team performance looks. For constables, using RBTs to enhance performance figures did not hold as much resonance as using RBTs to gain promotion: it was the latter that they describe as 'false'. The constables' comments regarding performance figures demonstrate their belief that a performance culture still permeates their workplace, though the sergeants do not vocalise this.

In their totality, the survey and Q findings and the Q discussion comments revealed that the supervisors' motives for using research and RBTs may present a barrier to their successful adoption. While in overwhelming agreement that promotion and performance measures are motivators for supervisors' use of research, both ranks did not share the same reasoning for this. Where the motive for using research is ascribed to promotion, the research, by association, may be treated with suspicion, particularly by the constables. This potential barrier to research is discussed at length in Section 7.2 of this thesis. On the other hand, the sergeants agreed that most officers would use RBTs to assist in promotion, but they did not necessarily view this as a negative research motive. The challenge for supervisors for research implementation comes in balancing the use of research, the officer's motive and ensuring the research is not viewed negatively by other officers. As revealed, buy-in to research is more likely to be secured through face-to-face communication with the researcher (in this case, the officer seeking promotion). The use of RBTs to satisfy a performance measure was not as significant as motive for constables or sergeants.

7.5. The Use of Discretion and Research

The existing literature recognises discretion, linked to officer agency and autonomy, as vital to the execution of the policing role (Cockcroft, 2020). Many argue that the complex nature of the police role and working environment make it impossible to do without it (Rowe, 2012; Buvik, 2014; Willis and Mastrofski, 2018). From a top-down perspective, discretion is often viewed negatively, where practitioners seek to act in pursuance of their own views, thus circumventing policy aims or objectives (Reuss-lanni, 1983; Rowe, 2007). Attempts to curtail discretion are often met with resistance (Rowe, 2007; Grant and Rowe, 2011; Slothower *et al.*, 2015; MacQueen and Bradford, 2016; Kadry, 2019) and are often viewed, by practitioners, as a threat to professionalism and officers' agency (Rowe, 2007; Bergman and Karp, 2021). Therefore, within this study, the sub-theme of *discretion* was designed to explore officers' views toward the following: the likelihood of officers using RBTs in relation to how much discretion they afforded; their wariness towards RBTs which control discretion; and whether officers believed RBTs lessen their use of discretion. From the survey data relating to discretion, three key findings emerged.

Firstly, a significant number of both ranks were neutral in their responses to all three statements (around 40% for each statement from each rank). Secondly, constables were more likely to agree that the more discretion RBTs afforded, the more likely officers were to use them (37.1%) compared with 31.0% of sergeants. Thirdly and most significantly, the survey findings revealed that around a third of constables believed RBTs would lessen the opportunity for them to use discretion (33.7%), a sizeable proportion were wary of RBTs which control discretion (46.6%), and 30.8% were wary of RBTs which control discretion. Statistically significant differences were observed between constable and sergeant responses concerning wariness towards RBTs which control discretion. The survey findings present differences in opinions between the two ranks and within the ranks.

Exploration of the Q findings helps explain some of the nuances between the ranks' views towards discretion. There were four Q-statements designed to explore officers' attitudes towards RBTs and the use of discretion. Two Q-statements used the same wording as the survey items for 'wariness of and 'RBTs lessen the opportunity to use discretion'. Two additional Q-statement items were added to explore officers' views regarding whether officers' decisions ought to be controlled in certain circumstances, and secondly, whether they valued their use of discretion above their other police skills. The most important point of note from the Q findings was a three-way divide in opinion, supported by a lack of consensus items relating to discretion across either rank. The survey results also observed the division in the

Q typology viewpoints.

Among the groups of typologies, the Receptive constables and Pragmatist sergeants shared the view that the more discretion EBP tactics afford officers, the more likely they are to be used by them. They did *not* value their discretion above their other skills, and neither were they wary of EBP tactics which control discretion. The Receptive sergeants held similar views to the Receptive constables and Pragmatist sergeants, however, unlike their counterparts, they placed some value on their ability to use discretion as a skill they rate above other policing skills. The Traditionalist constables and sergeants, and the Autonomous constables, on the other hand, shared a strong view that RBTs *do* lessen the opportunity for officers to use their discretion and are wary of RBTs which control discretion. Of the six typologies, these three felt strongly about their ability to use discretion and placed it above all other officer skills. A closer examination of the typologies' views by rank helps to explain the differing opinions.

The survey and Q findings revealed that most sergeants were not wary of RBTs which control discretion. The Traditionalist sergeants were the only typology to be wary of RBTs which control discretion. For these sergeants, their use of discretion is viewed as a matter of trust placed in them by the organisation, exemplified in the Q exit comments below:

'I have powers of constable and should be trusted when to use discretion and when appropriate to follow policy.'

EC Traditionalist sergeant

'The office of constable requires that each officer is an autonomous body with discretion to use powers. Any erosion of this discretion would be an erosion of the office and turn it into "just a job".'

EC Traditionalist sergeant

Their wariness towards RBTs which control discretion arguably emanates from the fear of a threat to officer autonomy in decision-making (Cockcroft, 2020). This is further exemplified in the group exchange below in which sergeants discuss having the freedom to use discretion to manage the unpredictable nature of the policing role described as 'chaos and kids and cars':⁵⁹

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⁵⁹ See Wood *et al.* (2014) who note the struggle between the realities of dynamic police work and the artificial confines of experimental conditions, where such conditions challenge officer agency, street-level knowledge and experience, and spatial authority, requiring officers to 'expand and modify their boundaries to respond to the adaptive nature of human behaviour' using their discretion (2014, p.374).

RM: This is a big one for me. We hold the office of constable and you are an autonomous body, responsible for your own decisions. If someone comes and says in these circumstances, this is the decision you should make, we're not going to be there, but you've got to make this decision – that drifts away from the office of constable ... and it's just a job then. You may as well be a security guard.

RM: I think any control of that discretion is a bad thing. It is fine to say the research suggests that this is the proper approach to take, but you're there with ... how many influences on a particular situation that you're not going to be able to quantify? With research you eliminate a lot of stuff. You sterilise the environment and say, given these circumstances this is the best possible outcome. You're introducing a load of chaos and kids and cars and different things into it.

GD sergeants

Therefore, for these sergeants, discretion is viewed as a matter of trust in their ability, but also a necessity for their role. Any tactics which impinge on this, in their view, are likely to prevent them from carrying out aspects of their role, particularly where immediacy in decision-making is required:

'Officers must be allowed to make decisions based on what is in front of them, not what research tells them to do.' – EC Traditionalist sergeant

Similarly, as shown in the discussion below, when responding to the statement 'The decisions officers make in policing situations should not be controlled by RBTs' reveals that for some sergeants, discretion ought not to be wholly controlled by RBTs. This is because the role often presents 'too many circumstances' to contend with and full use of discretion is required to manage these situations adequately:

RM: Not controlled. It should help the decision-making.

RM: You can have all the policy and procedure you want in place but sometimes a decision needs to be made that goes against policy and procedure. There's just too many circumstances ...

GD sergeants

Despite a belief in discretion as a way of dealing with the complex nature of policing incidents, there is also some acceptance among sergeants that there should be an element of control over officers' actions and decision-making but not necessarily over their use of discretion:

RM: I don't want something to control discretion because I put a lot of value in my cops having discretion and their own judgement. So, there's got to be some element to it, but not control it.

GD sergeants

In the discussion below, sergeants raise domestic violence incidents as a type of policing incident where a positive arrest policy controls their discretion. In this discussion, the sergeants reflect that control over their discretion in DV circumstances is 'probably a positive thing'. However, despite this, they offer further comments which indicate that they are not always convinced that limiting discretion in these circumstances is the right course of action for victims (Johnson and Dai, 2014). This suggests some reticence towards their discretion being curtailed at all:

RM: If your discretion is controlled ... and I suppose arrest for DV things, you could say, yes that's great. And on balance, we capture a lot of people that may not have complained. We give them a safe environment to complain. But equally, taking away that discretion on occasions has had really serious impacts for victims or other parties or the relationship as a whole. And it's not necessarily in every case the best decision.

RM: So, we're forced down that route. And on the whole, it's probably a positive thing, but that lack of discretion has negative outcomes on occasions ... for me, I'm very wary of any research-based tactics which control officer discretion ... there's rarely an absolute right or wrong.

GD sergeants

Overall, these findings suggest that most sergeants are not wary of RBTs that control officers' discretion, but for those who are (the survey identified 30.8%), this uncertainty comes from an understanding that policing is too complex to curtail the use of discretion. For the majority,

⁶⁰ A positive arrest policy is defined by Rowe as a policy 'designed to encourage officers to proactively intervene in incidents of domestic violence in order to increase the number of convictions secured for such offences, and to indicate that such behaviour is unacceptable' (2007, p.282).

the use of research and RBTs alone are unlikely to cause concern because they do not believe they limit the use of discretion per se. However, for those who are wary, any research or RBT which sets out to control discretion (or is perceived to) is likely to be met with some resistance by this proportion of sergeants.

As reflected in the sergeants' findings, the constables' survey data and the Q findings for discretion, there was a divide in opinion across the rank regarding RBTs and the use of discretion in general. However, unlike the sergeants' Q-group discussions which elicited numerous comments regarding discretion and RBTs, it is somewhat surprising that the constable Q-group discussions presented a minimal number of comments to assist with interpreting the survey and Q findings more broadly. The reason for this is not apparent, and it is not possible to explain the lack of comments or engagement with the discretion Q-statements in the constables' group discussions. However, there is a possible agreement between the higher levels of neutral responses to the statements for discretion, and the lack of responses within the Q-group discussions.

Regarding wariness towards RBTs which control discretion, the survey revealed that 46.6% of constables were wary of RBTs which control discretion compared with 30.8% of sergeants. However, despite a significant number of constables who reported being wary of RBTs that control discretion, there were limited Q-group discussion comments that assist in interpreting this more deeply. Within the Q findings, the Autonomous and Traditionalist constables were wary, and this wariness comes from their belief in operational experience and the use of discretion as key to their role. Despite this, the only discussion comment suggests that, like some of the sergeants, there is an understanding among constables that discretion is necessary to allow them to deal with the complexities of incidents and to adapt theirs responses 'to situations they never expected or were trained to face' Cockcroft (2020, p.113). This lone statement must be treated with caution because it is only one such statement:

RM: It's just you cannot ... You go to situations, and you can't be dictated to from a set of like rules and go Oh, can't do that, can't do that. It's how you feel at the time.

GD constables

Like the sergeants, in the discussion below, some constables also referred to being trusted by the organisation to get on with their job:

RM: The job needs to trust us enough to say right, you've gone, you've made that decision.

RF: You've given us the skills, you've put us through the training, and you gave us the ... we all swore in however many years ago we did it. So, trust us to do it.

RM: And we might get it wrong sometimes, but we don't need to be crucified for that.

GD constables

However, as observed in the sergeants' discussions, some constables believed that discretion ought to be controlled in some circumstances and not in others, reflecting the 'neutral' responses observed in the survey findings:

RF: I'd say middle because I guess there are some occasions where it's good that you can ... some things need to be set in stone. Get the rule book out.

RF: But then for others, like you say, you can't predict every situation.

GD constables

Unlike the sergeants, the constables felt most strongly about the value they placed on their discretion above their other policing skills (see Section 7.5). For the Traditionalist and Autonomous constables, their ability to use discretion is paramount and is focused on the freedom to make decisions, using their experience as they see appropriate (Lipsky, 2010). Charman and Corcoran (2014, p.499) argue that in choosing what actions best suit a policing situation from their 'cultural toolkit', officers play 'a crucial part in the positive articulation and construction of public policies' on the frontline.

Referring to their Q exit comments shows that for constables who lean towards a Traditionalist or Autonomous mindset, their ability to use discretion is vital to the role:

'My ability to make a decision based on circumstances is very important to me.'

EC Traditionalist constable

'I believe that discretion is the most important tool for officers to have.'

EC Traditionalist constable

'Police rely on discretion to maintain the support of the public.'

EC Traditionalist constable

Moreover, even though the dominant Receptive constables do not value discretion above their other skills, they still view it as an essential part of their skill set. This dynamic between discretion, operational experience and use of other skills is illuminated in the discussion below:

RF: See, I really disagreed with that. Not because I didn't value my discretion, but because [there's] a lot more other things than discretion, it's not the be-all and end-all. It's important, but I value a lot of other things more than that ...

RM: And as well, how often do you come about a new situation where all you need to use is your discretion? Most of the time you can draw upon previous experience. Which isn't discretion, that's facts, isn't it, from previous jobs or whatever. Or you're referring to law which is fact. Like you're asking your supervisor ...

RF: ... it's integral to the job. You couldn't do the job without it. But it's not the only thing.

GD constables

Thus, whilst the survey and Q findings suggest that a significant number of constables are wary of RBTs that control discretion, there are insufficient Q-group discussion comments to explore this in greater depth. It is plausible that the constables wary of RBTs – Autonomous and Traditionalist constables – hold similar beliefs to those sergeants who are also wary of RBTs that control officers' use of discretion. However, it remains surprising that constables did not vocalise this opinion in the group discussions. Constables generally value their discretion above their other policing skills, so any tactics that appear to interfere with this use of discretion may present a barrier for officers at this rank.

When considered together, the survey and Q findings indicated mixed views among the ranks regarding research and discretion, which was observed in both the survey findings and the three-way divide detected in the Q typologies. Most significantly, the constables had the strongest feelings regarding their ability to use their discretion, viewing it as essential to their

role. For this reason, they are much warier of RBTs which control discretion than the sergeants. They also believed that RBTs lessen their opportunities to use their discretion. Some sergeants were also wary of RBTs which control discretion, though this was to a lesser extent. Their reasons are similar to those of the constables, namely that policing incidents require the use of discretion to deal with the range of eventualities they present. Therefore, any RBT that is introduced that limits officers' use of discretion, or appears to do so, maybe met with some resistance, particularly from constables.

7.6. Team Influence

Numerous studies have shown the importance of colleague and team influence on the successful adoption of new working practices (Erwin and Garman, 2010), and this is also well documented in policing studies (Toch, 2008; Ingram *et al.*, 2018). Within this study, team influence on RBTs was measured using one statement within the survey strand, '*I am more likely to implement EBP tactics if my colleagues are doing so*'. Findings from the survey revealed that irrespective of rank, officers share the opinion they are more likely to implement RBTs if their colleagues are doing so (62.9% of constables and 75.4% of sergeants). There were no statistically significant differences in the constables' and sergeants' responses to this survey item.

Team influence (including supervisor and senior manager influence) was explored using four Q-statements. The first Q-statement (item 8) utilised the same statement wording as the survey item above. The remaining three Q-statements focused on exploring officers' views towards the use of RBTs, if genuinely supported by their supervisors and senior managers, and if accepted by their team.

When considering the survey findings and Q findings together, for the main statement relating to the likelihood of officers implementing RBTs where their colleagues are also doing so, there is a consensus of agreement between the two: five of the six typologies shared agreement with this statement with two groups of viewpoints. The first group of Q typologies consisted of five typologies – the Traditionalist and Receptive constables and the Receptive, Traditionalist and Pragmatist sergeants suggesting that team acceptance is important to many officers. The Autonomous constables were the only typology to disagree with this statement. This shared aspect of workgroup culture has been similarly observed by Ingram *et al.*, (2018) in their study of police culture and officer behaviour using a multi-level framework. They found an association between workgroup culture and officers' behaviour (towards the use of force),

highlighting the team's influence on officer behaviour as 'a collective effect' of a shared culture (2018, p. 800).

Similarly, the same five typologies listed above were aligned around the view that officers are more likely to use EBP tactics when their supervisor genuinely supports them, but less so around the view when supported by a senior manager. The Autonomous constables disagreed that officers will use EBP tactics if supported by senior managers and remaining ambivalent towards supervisors' genuine support. Given that five of the typologies once again shared the same view and strength of opinion towards this Q-statement, this demonstrates a consensus in the agreement between the Q findings and the survey findings.

A closer exploration of the two Q-statements designed to explore officers' beliefs about the role that genuine support from supervisors and senior managers plays in motivating officers to use RBTs revealed the differing explanations between constables and sergeants. In response to the Q-statement relating to supervisors' genuine support, the Receptive sergeants' comments did not offer much in-depth clarification about why they might believe that officers are more likely to use RBTs where their supervisors genuinely support them (beyond that they play a role in it):

'Officers will use RBTs if supported and encouraged by first-line managers.'

EC Receptive sergeant

"... supervisors are key to driving change."

EC Receptive sergeant

In addition, despite the lack of insight from the exit comments from the other typologies, the Q-group discussions did focus on supervisor support to secure officer 'buy-in'. The sergeants believe their support is likely to hold greater weight than support for research from the ranks above:

RM: Because if you buy into it, they'll buy into it. If you get much higher, like

chief inspectors and stuff, I don't think they'll make any difference.

RM: Your sergeants have got to buy into it for your staff to buy into it.

GD sergeants

There is, however, a recognition that if the supervisor is not viewed as a 'good operator' by their staff, then this might undermine any support for research they may be promoting:

RM: ... it depends on the supervisor.

RM: I think if they admire their supervisor and their supervisor is a good operator, then yes. If they've got a bad attitude and not a very good leader, I think they'd be a bit hold off.

GD sergeants

The sergeants, as supervisors, acknowledged that some of their officers might only be influenced to use RBTs by their supervisors and peers, not senior managers. For the constables these sergeants are referring to, a top-down approach is unlikely to work:

RM: Sometimes, some do, some don't. It just depends. Some people are set in their ways.

RM: Probably if they're pushed.

RF: Yeah, I thought the influence is more from their peers and their immediate supervisors.

GD sergeants

Essentially, however, this revealed that sergeants share the same view as the constables in that they believe officers are more likely to use RBTs where their supervisors support them. The sergeants, like the constables, acknowledge the value of peer support for such tactics, despite this not being part of a Q item. They also acknowledge the role of others in this endeavour, namely tutor constables. This suggests that a team approach may be of benefit:

RF: I think it's important it's supported by senior managers, but it's more important it's supported by first-level supervision to get the troops to do it ... they listen to us more than they do to the chief superintendent because they probably have that reticence around oh, some new fad. So, it does have an influence ... if we're trying to sell something and the tutor is saying it's rubbish, then that'd be counterproductive too. So, it needs both, but it's less influential than we are.

GD sergeants

For the sergeants, there is limited reference to colleagues' use of RBTs or team acceptance as an impetus for officers to use RBTs. Similarly, they do not believe the genuine support of

senior managers is likely to encourage officers to use RBTs. For the sergeants, their focus is on the genuine support of supervisors as the primary way of encouraging officers to use RBTs. For the sergeants, this is tied to securing officer 'buy-in' based on their influence as line supervisors.

There was a slightly different understanding based on rank and authority for the constables. The Autonomous constable, in their Q exit comment below, spoke of a hierarchy and rank structure where the supervisor's commands ought to be followed irrespective of what the officer believes, thereby negating the need for 'genuine' support:

'... if new tactics are implemented by a supervisor, as a ranked organisation we must follow suit.'

EC Autonomous constable

There was a lack of post Q-sort questionnaire data to explain why officers believe genuine supervisors' support is important. However, the comment below in a constable Q discussion group reinforces the suggestion that hierarchical demand overrides genuine support. This also suggests that for some constables, real support is not necessary because the sergeant carries rank, and therefore has the final decision on what the constable does or does not do, which is often the case in a hierarchical organisation:

RM: It's a ranked organisation, isn't it? So, if your sergeant says I want you to do this, you're not going to turn your back and say, 'No sarg, not going to happen'.

GD constables

The discussion below presents a similar perspective. This perspective acknowledges that ultimately, it is the supervisor who controls what is carried out:

RM: They're sort of rubber-stamping it, aren't they? Because if the supervisor says it's right, most cops would just think, oh well, it must be.

RM: I think if they're more supported by the supervisor the supervisor's going to be pushing it. So, you probably are more likely to use it.

GD constables

This speaks more widely to the constables' acknowledgement that a rank structure and hierarchy always underpin their role. Of course, this does not necessarily mean that officers

are likely to 'buy-in' simply because they are ordered to do so; officers within this study recognised their 'own sense of agency' (Fleming, 2018, p.11). The following comments reflect this sentiment:

RF: See it wouldn't affect me what my supervisors would do, whether they were managing or not. It wouldn't bother me.

RF: I'd go with what I thought would be right and that would be that.

RM: But I'd still want to know if I was being part of ... research.

GD constables

Additionally, some constables within this study also held an ongoing suspicion towards their supervisors' motives for using or supporting the use of research within the workplace (see Section 7.4). These constables cite self-gain and promotion, performance measures and bravado as the reasons for their suspicion towards supervisors' support for research:

RF: ... I would still be suspicious sometimes of supervisors implementing that, because I think sometimes it's for their gain.

RM: It might be performance indicators which we're unaware of. And they're being scrutinised.

GD constables

Despite continued scepticism towards supervisors' motives for supporting the use of research in the workplace, there is some recognition from both ranks alike that supervisor support is necessary for what officers frequently refer to as 'buy-in'. In their discussions, constables acknowledge that supervisors who can motivate staff and show them the benefits of research when it has worked can then help to further motivate officers. The comment below typifies this view:

RM: It's like if you're trying to start anything off that is seen to be new, if you can motivate your staff to do something ... you're being told to do from the greater gods and they go and do that well, and then they see the positives with it, then it's going to be great moving forward. If you feel from the other side that you're being motivated and supported, you can't distance yourself from it.

This comment suggests that these constables believe in the benefits of seeing research in action to create the impetus for the acceptance of future research. This point is worthy of note since it illustrates that constables believe it is essential to see the results of research in action to secure their 'buy-in' for future research.

When considering senior management's support, most constables believed that it is their immediate supervisors' support for research that is likely to secure the use of tactics amongst officers. This is based on the belief that frontline supervisors are more connected to the realities of the constables' working world compared to senior managers. This was similarly observed in the work of Rowe who found that junior officers' attitudes towards those in senior positions reflected the view that senior officers had 'lost touch with the harsh realities of life as faced by their subordinates' (2006, p.763):

RM: I'm more likely to support it if it's done by direct managers than senior ones. Because I think the managers on our level have a greater understanding of our day-to-day role and our capabilities ... senior managers sometimes just decide we're implementing that, that's coming in. And it happens without consultation.

RM: We've done this research at a national level; we're going to now implement that within a local level within our force.

GD constables

Additionally, the constables above speak of 'enforced' implementation of research by senior managers who have not consulted with officers on the frontline carrying out the role. This theme of 'enforced' use of RBTs is also reflected in the comments below:

RF: We're more likely to use them if they're implemented by senior managers ... See, I think it depends how far up the chain, because some people get cynical if they're implemented by people higher up.

RM: Probably because they're going to be enforced that people use them. I wouldn't say you're more likely to use it if it's from them.

GD constables

This data suggests that when the use of tactics is enforced, it will result in the same outcome, namely that without genuine 'buy-in', the quality of execution is likely to be different.

The constables also believe that when research is implemented from the top down, it needs to be communicated effectively to secure officer 'buy-in' to prevent the research from being viewed as 'just another policy'. Here, the constables seek transparency in the tactics adopted and used, because embedded within the transparency is an explanation of the motives behind the research, which links back to earlier sub-themes around motive. Nevertheless, as shown in the discussion below, they recognise the importance of their direct supervisors' support for the RBT, and additionally their constable peers' support for the use of the tactic:

RM: I think with understanding of what it's all based on and what it's all about and a bit more information about it, yes. Because we have so much of this research stuff ... we don't know the information behind that, introduced by SMT. That it's just another policy.

RM: Do you worry about what SMT say? No, exactly. It's more to do with your team and your sergeant.

GD constables

The constables are less focused on their team and colleagues' acceptance and use of RBT and are more concentrated on the genuine support from their direct line manager. This reflects the sergeants' understanding that the supervisor is likely to be the most influential in securing the use of RBTs in the workplace. For the constables, this is based less on sergeants securing their 'buy-in' (as the sergeants themselves believe) and more on the authority which comes with rank. Constables maintain that if their immediate supervisors support the use of RBTs, then they are more likely to be required to use them, irrespective of genuine support or their 'buy-in' (Fleming and Rhodes, 2018).

In their totality, the survey and Q findings reveal that whilst team and colleague acceptance and use of RBTs is of some importance for officers' adoption of RBTs, it is the supervisors' role in this which is the most significant. Both ranks agree on this. However, whilst sergeants believe their genuine support for the use of RBTs is likely to influence their officers to use them by securing 'buy-in', the constables recognise their 'buy-in' is not necessarily required, given that they can be instructed to use such tactics by their supervisor, irrespective of whether they wish to adopt the tactics or not.

7.7. Conclusion

This chapter has integrated the survey and Q findings to extend the insights obtained during the quantitative strand of this study relating to officers' perceptions of the potential barriers to research implementation in frontline policing. It has also aimed to answer the final central research question of this thesis:

RQ₄ What are the potential challenges to research within frontline policing?

The findings from this study and the subsequent discussions within this chapter have shown that whilst sergeants and constables often hold similar views about the potential barriers to research in frontline policing, the reasons which underpin these views can be different, and in some cases opposing. These rank-based differences in opinion present numerous challenges for the adoption of research and RBTs in the policing environment, similarly acknowledged in the work of others (see Fleming, 2020).

Several key findings have emerged from this discussion chapter, which answer the final research question. Firstly, managing frontline officers' interpretations of research motives, whether perceived as individual or organisational, are likely to be a significant challenge to research and the researcher. The issue of research motive has recurred throughout the findings and discussion chapters of this thesis. Secondly, the theme of securing frontline officers' research 'buy-in' has also been raised. This study has revealed that many sergeants believe constables are more likely to use RBTs when their sergeants genuinely support the use of such research and RBTs. Yet the constables understand they do not necessarily need to 'buy into' research since they anticipate being told to use the research by their sergeant, who has authority from the rank. Conflict is likely to occur when the sergeants' motive for supporting the research is at odds with what the constables perceive to be genuine (as observed within the comments about using RBTs to secure promotion).

The issue of research motive is also woven through the level of communication that officers wish to receive. Findings from this study reveal that officers wish to be informed in sufficient detail to satisfy themselves of whether the research is genuine in motive and worthy of their support. When the purpose of the research or RBTs is either poorly communicated to frontline officers, or not communicated at all, the research or RBTs are likely to be met with suspicion and resistance. Similarly, where officers view RBTs as a restriction to their use of discretion, as a negative, this is likely to present a barrier to officer receptivity. Thirdly, authentic 'buy-in' for research is unlikely to come from supervisors', senior managers, team or colleagues and

their genuine support. As demonstrated by the study's findings, cooperation with research is most likely to come from involving officers in the research process from the outset, so that the research motive can be laid bare transparently for those who wish to be involved. As presented in the comments and discussions of frontline officers themselves, the main barrier to research is that of research motive.

Chapter Eight: Conclusion

8.1. Introduction

The central aim of this study was to better understand police constables' and sergeants' receptivity to research in frontline policing in England. In this final chapter of my thesis, I first revisit the established gaps in knowledge before highlighting this study's key findings and limitations. Secondly, I present the theoretical and practical implications of this study before emphasising the originality of this research and its contribution to knowledge. Finally, I consolidate these discussions by considering the nature of future debates.

8.2. Established Gaps in Knowledge

Chapter Two examined the existing literature relating to EBP and revealed three main gaps in knowledge that this study has sought to address. Firstly, despite an emerging understanding of frontline officers' receptivity to research, from both US and UK perspectives, these were situated in the broader study, where the samples included officers of different ranks, alongside other non-sworn staff. I argued that whilst these studies presented evidence of frontline officers' views toward EBP, a study that focused solely on the opinions of sworn frontline constables and sergeants was necessary to provide a more detailed and nuanced understanding of their receptivity. By distinguishing between the two ranks, I anticipated that the differing perspectives of EBP as a phenomenon to both would be observable in richer detail (Reuss-lanni, 1983, p.139).

Secondly, whilst there was evidence of the barriers to research in the UK, as articulated by the frontline officers themselves, this was limited to a small number of emerging studies (Fleming and Wingrove, 2017; Lumsden, 2017; Fleming and Rhodes, 2018; Fleming, 2020). Therefore, I argued that there was a need for further empirical research to enrich the existing understanding of the challenges to EBP in frontline practice, from practitioners' lived experiences to inform 'evidence-based' implementation of EBP. Finally, I highlighted a lack of methodological variation as a research gap. The methodological approaches adopted by previous studies largely examined the topic using either qualitative or quantitative methods. I postulated that a mixed-methodological strategy would provide a richer understanding and

more complete evidence of the receptivity and challenges of research to frontline policing in the UK.⁶¹

Building upon the work of other scholars (Fleming and Wingrove, 2017; Lumsden, 2017; Fleming and Rhodes, 2018), this study, therefore, adopted a mixed-methodological approach, focusing exclusively on the views of frontline constables and sergeants and the prevalence thereof receptivity to EBP, in UK policing. In seeking to address the gaps in knowledge, the four central research questions were developed:

RQ_1	To what extent are constables and sergeants open to research in frontline
	policing?
RQ_2	What role do constables and sergeants believe research ought to play in frontline
	policing?

RQ₃ What value do constables and sergeants place on research in frontline policing?

RQ₄ What are the potential challenges to research within frontline policing?

These questions are answered in a summary of the key findings below.

8.3. <u>Summary of Key Findings and Limitations</u>

The analysis and findings presented in Chapters Four and Five, followed by the discussions in Chapters Six and Seven, have established the overarching conclusion that there are multiple different nuances in the ways that frontline officers are receptive (or otherwise) to research. This section summarises these key findings in relation to each research question.

8.3.1. Gradations of receptivity to research in frontline policing

Within the discussion presented in Chapter Six, three key findings emerged related to receptivity to research. For the officers in this study, there was firstly a broad openness shown towards using RBTs and, to a certain degree, carrying out and evaluating research in the field. Secondly, although most sergeants believed there is a role for research within policing, this role was understood to be better located elsewhere in the organisation, away from frontline

⁶¹ Whilst Fleming and Wingrove (2017) adopted a mixed-methodological approach in their assessment of pilot training examining a current approach to EBP implementation for the College of Policing (Fleming *et al.*, 2016), the primary aim of this study was to assess 'participant reaction to the training material and methods used' and 'participants' perceptions of the viability of the training and EBP generally, and its implementation in their organization' (2017, p.204).

practice. Thirdly, there was a belief in the value that research *could* bring to frontline policing activities; however, this value was yet to be observed and therefore experienced by these officers.

More specifically, in response to RQ₁, 'To what extent are constables and sergeants open to research in frontline policing?', the following findings have emerged. Both ranks were broadly open to the use of research within their workplace, a result which confirms the work of other scholars (Palmer, 2011; Telep and Winegar, 2016; Telep, 2017; Cherney *et al.*, 2019), with explanations for this openness relating to the betterment of themselves as practitioners, of working practices and for the role more broadly which is tied to the effectiveness of the function in serving the public. Furthermore, whilst both ranks were open to using RBTs, both showed less enthusiasm towards carrying out and evaluating research in their workplace. Significantly, the sergeants appeared to be more open to carrying out research themselves, evaluating it, and using RBTs.

However, despite this seeming openness to research, for constables in this study, openness appears to be caveat-based. These caveats included a perception of the authenticity of the research motive and the researcher, allied to the betterment of policing and inextricably linked with transparency in communication around the research purpose. On the other hand, sergeants did not place these stipulations on research, preferring to align their openness with the positive influence that it can have on a practical, day-to-day level. Significantly, both ranks continue to rely upon experiential knowledge, rather than formal knowledge, to base their everyday decision-making, given the complex nature of the incidents they deal with. As discussed in Chapter Two, this reliance on experiential over research evidence has been widely observed by other police scholars (for example, see Willis and Mastrofski, 2016; Fleming and Rhodes, 2018). However, this study has also revealed that frontline officers believe research has the potential to be combined with experience to enhance their working practices – they recognise a need, in some instances, to improve existing practices which they discern as ineffective. Cockcroft (2020, p.118) argues that it is 'culturally derived knowledge' that has 'real-world utility' in helping officers to understand the value of formal knowledge in their everyday roles.

In response to RQ₂, 'What role do constables and sergeants believe research ought to play in frontline policing?', the findings demonstrated a considerably mixed set of views about the role research ought to play. On the surface, most officers agreed there is a broad role for research within policing. However, there was a significant divergence between the ranks on what and where this role should be. This variation of views is evident *within* the ranks and more

significantly *between* them, with constables generally suggesting its role within frontline policing and sergeants suggesting it ought to be away from the frontline.

When considering the role of research, constables were focused on the practicalities for them in their role, believing that it should help them in their day-to-day practices. Conversely, sergeants clearly understood that research, whilst having a broader role in policing, does not necessarily belong in frontline policing activities and is better suited at the policy and practice decision-making level. This presents an apparent conflict in opinion based on rank and role and may be explained by the sergeant's role as 'management' (Butterfield et al., p.334). Arguably, it presents a significant issue for research adoption and implementation, given that both ranks' views of the role of research appear to be at odds with one another. As suggested throughout the thesis, this is perhaps because of the inherently different roles that constables and sergeants undertake, where sergeants are unable to 'witness first-hand the working practices of those they supervise' (Cockcroft, 2020, p.100). This is important because it presents evidence of a misalignment between the views of constables and sergeants and, therefore, a barrier which could influence the use of evidence and participation in research. This particular finding also brings forth broader challenges, given the hierarchical nature of policing. If sergeants disagree that research has a role to play on the frontline, this may potentially make it difficult to 'reach' constables.

In response to RQ₃, 'What value do constables and sergeants place on research in frontline policing?', this study has revealed two themes. Firstly, both ranks broadly believed that research *could* be of some value to them in frontline practice but were yet to see it materialise (similarly observed by Hunter and May, 2019). Whilst this is an encouraging finding, it also offers a potential explanation for the lack of research uptake thus far (Lum, 2009; Sherman, 2015; Cockcroft, 2020). Most significantly, this study has shown that officers cannot yet be convinced of the value of research to their role because they cannot see research in practice, either because it is not taking place or they are unaware of it. Officers' exposure to research through practical application is, as shown in this study, seemingly a factor in ensuring that officers see the value in research for their role.

To summarise, this study has shown that officers' views towards receptivity to research (as a combination of *openness*, *role* and *value*) are based upon the rank they hold, and so rank matters in this regard. However, the shared and equally disputed views around openness, value and role also demonstrate that within the ranks, there are nuances in the understandings of 'receptivity', and thus, receptivity is multifaceted.

8.3.2. Challenges to research in frontline policing

In seeking to answer the final research question, RQ₄ 'What are the potential challenges to research in frontline policing?', the findings clearly indicate that whilst both ranks held similar views of the potential challenges to research, the reasons behind these views were significantly different.

This study has identified several key themes when examining officers' views of the challenges for EBP and research in frontline policing. The first and foremost theme presents the issue of legitimacy, in the context of research motive, as a significant challenge to acceptance of research practices. This issue was woven throughout the officers' responses towards research in their frontline role, across both of the discussion chapters, and brings to the fore the challenge of managing frontline officers' perceptions of research motive, whether individual or organisational.

Secondly, the linked theme of securing 'buy-in' is also established as a challenge for EBP. Where RBTs are to be used or research undertaken in frontline activities, despite many sergeants viewing the role of these to be away from the frontline, this study has shown that many believe constables are more likely to use RBTs where their sergeants genuinely support their use, thus confirming the presence of rank-based perceptions. On the other hand, constables know that they do not need to 'buy into' research because they can be ordered to make use of or take part in research by their sergeant, with authority, if warranted (similarly observed in the work of Fleming (2018)). To this end, this study concludes that genuine officer 'buy-in' to EBP and research is unlikely to be secured through the support of supervisors, senior managers, colleagues or teams. Furthermore, it is apparent that for most officers, effective communication, explanation of research purpose and accessibility and visibility of research in the workplace are essential considerations if buy-in, and therefore successful implementation, is to be achieved (Kalyal et al., 2020). These findings suggest that officers' cooperation with research is more likely to emanate from involving them in research processes, from conception to evaluation, where the role they 'can play in developing, embedding and applying police knowledge in practice' is emphasised (Wood et al., 2018b, p. 184). More specifically, the findings suggest that the stage at which research motive is transparently communicated to frontline officers is likely to be critical, and its significance should not be overlooked. Greater emphasis needs to be placed on the officers' role in developing, embedding and applying police knowledge in practice.

8.3.3. Where are we now?

In the current EBP landscape, the highlighted findings above offer two further points of note relating to the broader topics of the Police Education Qualifications Framework (PEQF) and police culture. Firstly, given the significant influx of graduate officers entering policing via PEQF entry routes, the demographic characteristics (particularly in terms of age, HLAA and length of service) of the police workforce will change markedly. From this study, it is not possible to indicate what impact the increasing number of degree-educated officers has had or will have on frontline officers' receptivity to research and, more importantly, the effect this will have on the future uptake of research evidence into their practice. Furthermore, it is impossible to say whether their views towards research and the role they believe it ought to play would be significantly different to their predecessors. However, given the findings of this study, it is reasonable to hypothesise that whilst newly recruited officers may be initially receptive to the idea of research, they too, like their colleagues, may be unable to envisage how this will manifest in their everyday practices, given the nature of their role (Hunter and May, 2019). If this is the case, this issue is likely to be compounded by an occupational culture widely recognised for influencing new officers to disregard prior academic learning, centred on EBP, in favour of informal, in-the-field peer learning (Charman, 2017; Hunter and May, 2019; Watkinson-Miley et al., 2021). Further challenges are likely to arise where those tasked with supporting and mentoring these officers (the sergeants) have significantly different opinions towards research, education and learning than those of their constables.

Secondly and relatedly, EBP as a means of encouraging cultural change through the professionalisation of practices is unlikely to secure significant change as it relies upon an existing culture that supports formal learning and development. There are substantial issues within the current framework for police learning and development within England and Wales, where formal learning is often viewed culturally as an abstraction and not as a vital component in workforce development (The Police Foundation, 2022). Without an organisational culture that recognises and supports occupational learning, it is doubtful that learning from research and evidence can be effectively translated into practice. Those joining the profession currently, who are receptive to research in the first instance, may find their workplace environment unsupportive of their past and future learning or reluctant 'to meaningfully recognise their skill and knowledge sets' (Cockcroft and Hallenberg, 2021, p.13). This could create a workforce that cannot learn and develop effectively from emerging evidence, thus undermining EBP and the broader principles of professionalisation (Hunter and May, 2019).

8.3.4. Research limitations

Although the research findings have limitations (discussed below), this study also has two main strengths. Firstly is its use of a mixed-methodological approach. Through a comprehensive examination of the quantitative and qualitative data, it has generated a depth of understanding about receptivity to research that could not have been achieved using a single method alone and which has not been attempted thus far (Bergman, 2008; Teddlie and Tashakkori, 2009; Morgan, 2014). Secondly, my positionality as the researcher within this study is to be viewed as a strength. As a former officer, I have brought a situated, priori knowledge and competency of understanding to this study. My position as an 'outsider insider' (Brown, 1996, p.181) has facilitated arguably a more nuanced and truthful account of the insider and their culture (Herod, 1999) beyond that which might be obtained by an 'outsider' (Darwin Holmes, 2020).

Despite the above-mentioned strengths, the study was subject to several potential methodological limitations. Firstly, within both strands, the framing and wording of the questionnaire and QM statements was a subjective process and, as such, was not free from researcher bias. My interpretation of the literature and the conclusions I drew from the review ultimately shaped the wording of the statements. Likewise, my interpretation and analysis of the findings are undoubtedly shaped by my experiences and background (Creswell, 2009) (discussed in Section 3.9 - Researcher Positionality). However, by adopting a method of data integration based on a synthesis of the results, I have examined evidence of the opinions towards research from both a quantitative and qualitative perspective. This integration justified the new and emergent themes beyond those identified in the literature review. Using a process which converges multiple sources of data adds to the validity of this study (Creswell, 2009; Morgan, 2014). Similarly, in providing a rich and detailed description of the research setting and providing different perspectives on the same theme throughout the thesis, I have offered a 'more realistic and richer' set of results, enhancing the credibility of my findings (Creswell, 2009).

However, another limitation relates to the random sampling strategy for the population of frontline officers within each force in the quantitative strand. As discussed in Chapter Three, the findings from the quantitative strand are not generalisable to the population of frontline officers within each force since there were insufficient responses to meet the necessary statistical criteria. Furthermore, whilst the survey invitations were distributed by email to all frontline officers within the population, it has been impossible to establish (given the email

addresses were provided by the host forces) whether all members of the population were included.

Participants were selected as a convenience sample within the qualitative strand, and the gatekeeper within each host force was responsible for selecting participants. Therefore, it remains unclear whether the officers selected were chosen simply because they were on duty and available to participate in the research or selected because the gatekeeper believed they would promote a positive image of the organisation.

Regarding replicability, whilst the quantitative strand of study would be straightforward to replicate in terms of sampling, questionnaire distribution and analysis, the same cannot be said of the qualitative strand. Qualitative research is challenging to replicate, given that 'there are hardly any standard procedures to be followed' (Bryman, 2012, p.405). Whilst the same procedures for the delivery of the individual QM sorting element could be replicated (as demonstrated in the field), the group session component, as a qualitative method, cannot be truly replicated.

Finally, it is important to acknowledge the time gap between the data collection phases of this study in 2017 and the writing-up stage. While it is reasonable to hypothesise that the EBP landscape and frontline officers' views towards it may have changed considerably after five years, there is no empirical evidence to indicate otherwise. Whilst the discourses surrounding EBP have certainly moved on (reflecting the introduction of the PEQF and a shift towards recognising other forms of 'evidence' as valid), UK officers' prevailing views about their own roles and the value of research evidence to these are unlikely to have changed substantially, given the influence of police culture, and the essentially unchanged role of a police officer (Loftus, 2010).

Whilst the findings of this study cannot be generalised to force level or beyond, they nevertheless represent an individually unique research project which has recorded and interpreted a breadth of data relating to the views of frontline constables and sergeants, across four forces in England between March 2017 and December 2017. As such, this research offers a unique and pertinent contribution to knowledge and presents several theoretical and practical implications for the field of policing.

of this study in 2017.

⁶² Published studies undertaken, examining officers' views towards EBP and research in the UK, do so from data gathered in 2014 (Lumsden, 2017; Fleming, 2018, 2020; Fleming and Rhodes, 2018; Lumsden and Goode, 2018) and 2015 (Fleming and Wingrove, 2017), prior to the data collection phase

8.4. Theoretical and Practical Implications of the Research

This study has four principal implications, each with its own propositions for future research. The most significant theoretical implication from this study is that officers' receptivity to research appears to be more determined by an officer's rank than by the other characteristics which might be expected to play a role in influencing receptivity (for example, higher levels of academic attainment or length of service). This corresponds with the work of Telep (2016), who found little evidence that individual-level predictors, such as gender, length of service and age, have a significant influence on attitudes towards EBP (though rank does). As discussed in Chapter Two, in the context of receptivity to research, scholars have identified differences in receptivity between agencies within the same study (Telep and Winegar, 2016; Telep, 2017; Blaskovits *et al.*, 2020) but have not done so between ranks explicitly. This is significant because isolating the specific differences between views of constables and sergeants (towards the role and value of research and the challenges faced by EBP) offers a unique view of the phenomenon and suggests that receptivity is multifaceted and not binary in nature.

Relatedly, this study has also shown that there is complexity *within and between* the ranks, illustrated by the six different typologies of officer based on their views towards research (the Traditionalist, Pragmatist and Receptive sergeants and the Receptive, Autonomous and Traditionalist constables). By using a unique method, this study has explored this complexity configured around six diverse and sometimes overlapping viewpoints to better understand practitioners' views towards EBP.

This study has raised several important questions regarding the role of rank in research adoption and implementation in policing. A key unanswered question that future research could consider is how do sergeants influence constables' adoption of research in practice. And relatedly, in what ways does the sergeants' view that research belongs elsewhere in policing shape constables' receptivity to making use of research in their role? Another future research focus emerging from this study is that it remains unclear what influence rank and role have on newly-recruited officers, who have undertaken higher-level education, expecting and required to use research in their everyday professional roles. Future studies (arguably longitudinal studies) are needed to explore the 'journey' of these newly-appointed officers throughout their career, to better understand the influence of rank and sub-culture more broadly on their 'receptivity'. Importantly, further research needs to examine their use of research more closely over the course of their career to inform future and broader debate around research adoption within professional policing. A new study could assess the long-term effects and impact of the use of research by officers on their work practices.

The second theoretical implication is that the findings offer a contemporary insight into the police sub-culture between the ranks, which has been well documented by others previously (Reuss-Ianni, 1983; Paoline, 2003; Newburn, 2005; Cockcroft, 2014). In its own right, this research cautiously presents sub-cultural perspectives and orientations in and between the ranks of constable and sergeant in a UK setting, explicitly relating to receptivity to research. Given the influence of occupational culture on the attitudes and behaviours of officers, particularly related to the use of discretion, future research should focus firstly on exploring the existing relationships between the ranks (at the rank-and-file level) to extend what is currently known about police sub-cultures more broadly, and how this affects practitioner behaviour in the UK. Secondly, in showing differentiation in officer orientation towards research, the findings of this study also raise broader questions relating to police culture and the 'different cultural orientations' that exist among officers undertaking the same role (Cockcroft, 2020, p.96). This study has clearly shown that whilst it may be expected for officers working in frontline policing to share similar world views, there are cultural variations within and between the ranks. Therefore, research is needed to explore the relationship between the rank-and-file sub-cultures in the specific context of evidence-based practice in UK policing.

Most importantly and relating to police culture, these findings underscore that frontline occupational culture continues to have a strong practical and experiential orientation. Therefore, research is primarily viewed by officers within this study as outside of the priority of practical solutions to everyday policing challenges, ordinarily based on custom, practice and experience. Despite being mainly open to the *idea* of research, officers from both ranks are also nevertheless suspicious, even cynical, about the motives and value of research work. This chimes with the broader 'anti-professionalisation' agenda, which is also insular and resistant to change (McCanney *et al.*, 2021). If EBP is to make significant in-roads to change policing, then it has to overcome this traditional and conservative perspective. Research which examines the role of culture in navigating these perspectives is therefore necessary.

The third theoretical implication of this study relates to officers' relationship with discretion in evidence-based practice. Like the work of others, this study confirms the presence of officers' continued reliance on discretion as street-level bureaucrats to carry out their everyday roles (Lipsky, 2010; Gundhus, 2012; Buvik, 2014). The findings of this study, which indicate that the more discretion afforded to officers, the more likely they are to implement the 'policy' (in this case, RBTs), corroborates those of earlier studies in other professional fields (Tummers and Bekkers, 2016), and in policing (Hill, 2003; Tasdoven and Kapucu, 2013). Specifically, in the narrower context of EBP and research in policing, this research presents evidence that officers believe research is likely to reduce their ability to use discretion. However, it is unclear

from this study whether officers were aware of the other ways in which their discretion is curtailed, for example, through accountability measures, management oversight and other policies and procedures.

The relationship between EBP and discretion raises important theoretical issues that have a bearing on the future implementation (successful or otherwise) of research initiatives and EBP more widely. Given the weight that officers place on their ability to use discretion to manage the 'complexities' of policing situations and a level of resistance to discretion-limiting practices (McCanney *et al.*, 2021), attention to these issues is likely to be of crucial importance. Future research is needed to extend the currently limited knowledge base relating to officers' application of discretion and, more specifically, their autonomy in the context of using RBTs in the field. Research is also required to better understand the implications of discretion-limiting tactics on the use of RBTs in frontline practice.

Building on the issue of officer discretion, whilst this study has focused on challenges to EBP within policing organisations, at officer level, tensions also exist beyond the confines of these organisations. At international level, policy transfer, with the underlying assumption that past or present policies which have been successful in one country, political system or administrative setting, will be successful in another, can, rightly or wrongly influence governments to adopt policies and practices from other jurisdictions (Dolowitz and Marsh, 2000). At a localised level, the difficulties associated with moving experiments and evidence-based interventions to other areas, give rise to the risk of implementation failure where spatial, socio economic and crime contexts are poorly recognised (Graham and Robertson, 2022) or largely ignored in favour of political, organisational or personal agendas (Porto de Oliveira and Koga, 2022).

Political and public pressure on police organisations to adopt (or otherwise) policies or practices where scientific evidence suggests otherwise, is a threat to the profession's integrity and raises important questions related to the political independence of the police (Jonathan-Zamir *et al.*, 2019). Further research should consider whether research and scientific evidence should have an exalted status in prioritising certain and responses above others. And relatedly, the question should be asked whether those practices which have symbolic value (such as drug raids) but have no measurable impacts (in terms of reducing drug supply chains), should be abandoned in favour of evidence-based approaches. Likewise, is it appropriate to continue with practices which are not evidence-based, if those in authority, such as the Chief Constable or the Police and Crime Commissioner, mandate their use? Like

discretion, the nature of evidence-based practice and EBP are inextricably connected to operational independence and professional practice.

Finally, a practical implication of this study's findings relates to the broader relationship between EBP, police professionalisation and the introduction of the PEQF. The findings are especially timely given the ongoing professionalisation of the policing agenda and the requirement for all new practitioners to engage with evidence-based practice through the PEQF and Continuous Professional Development. The findings of this study suggest that developing a police service with higher levels of academic attainment will not, in itself, raise receptivity to research. My findings indicate that demonstrating the 'genuineness' of the research motive and its applied benefits to operational practice are central to 'getting the grease to the squeak'. Furthermore, the management and positionality of research within police professional practice is something that the service, and the governing agencies, must take seriously if there is to be a long-term transformation in the use of scientific evidence within policing.

Whilst this study has shown that ranks matter more, considerably more work is required to develop a deeper understanding of the relationship between academic attainment and officers' attitudes towards research. Like the work of other scholars, this study has found that higher levels of educational attainment tend to indicate more positive beliefs toward the researcher and openness to taking part in research (Telep, 2017). However, positive attitudes of officers (including those qualified to degree level) towards research may not necessarily translate to behaviour in practice if officers see little evidence of the value it holds for their workplace. Likewise, as this study has shown, officers who are more highly qualified do not necessarily hold different views from those with lower levels of attainment on a range of other important factors relating to EBP, including the role of communication and the use of discretion.

More broadly, further research on and with frontline practitioners should be undertaken to better understand how those on the frontline *do* the job that is policing. Despite the current professionalisation agenda, there is still much unknown about the police environment, the practices and the officers who carry them out in frontline policing today. It is suggested that the practitioner's voice ought to play a pivotal role in various ways in all research undertaken and implemented within policing organisations to address the issues presented by this study.

This examination has practical implications for those within and outside policing organisations. For police leaders, managers and researchers, it offers insights into several previously unseen challenges they may be presented with when instigating research and introducing evidence

into practices, such as managing 'research motive' and research communication strategies. For frontline officers, the implications of this research are arguably twofold. Firstly, it has revealed aspects of the present-day relationship between the ranks of constable and sergeant, including receptivity to research, but beyond this, the current role of hierarchy and team influence. Secondly, and most importantly, it has highlighted ways to bring research closer to frontline practice whilst incorporating awareness of the significance of operational experience, a blend most officers believe can assist them in their inherently difficult and challenging role.

8.5. Contribution to Knowledge

In its totality, this research has contributed to police scholarship in two principal ways. Firstly, it has adopted Q-methodology (QM) as part of a mixed methodological study. Using QM in this way has not been undertaken in policing research thus far. It has tested the existing knowledge regarding receptivity to research using an original method using Q-methodology to present six independent officer viewpoints towards EBP as typologies. The construction and interpretations of these typologies have given a novel and in-depth understanding of openness to research and the challenges faced by EBP in frontline policing. It has revealed complexities within and between the ranks, where overlapping and distinctive views are evident. In separating the ranks through the methodology, instead of distinguishing between them at the discussion stage, I have provided detail and perspective unlikely to be achieved when considering constables and sergeants together as the collective rank-and-file.

Furthermore, by extending this method to use Q-sorting as a cognitive tool, I have presented a single, original technique as a pragmatic innovation to the original method. Using Q-sorting as a cognitive tool to support and encourage officers' discussion, most importantly, provided the sub-themes (following the thematic analysis of the discussion data) to structure and integrate the quantitative and qualitative findings successfully. It also offered further qualitative data to enhance the quantitative and qualitative discussion narrative. To the best of my knowledge, Q-sorting as a cognitive tool has not been used before in social scientific research and therefore presents an original contribution to knowledge.

Secondly, building upon the work of others, I have added new perspectives to the understanding of receptivity towards research and the challenges EBP faces within UK policing. It presents a contemporary insight into the relationship between constables and sergeants, specifically concerning aspects of their receptivity to research. This study also adds to the growing body of research focused on practitioners' views of the value of research

to frontline policing and the role it ought to play in the future. This extends the boundaries of what is understood about officers' views of their contemporary working world, role, sub-culture and the use of discretion. In doing so, it uniquely identifies and explores the challenges to research from the practitioner's perspective through its use of a novel methodological approach.

This study has filled the methodological gaps identified at the beginning of this thesis. It is undoubtedly a unique study, which has focused exclusively on the views of sworn constables and sergeants towards research in practice, having been methodologically designed explicitly for this purpose.

8.6. Future Considerations and New Debates

In a rapidly changing policing landscape, the police face rising pressures from austerity, increased political and public scrutiny and the challenges associated with the changing nature of the role (Cockcroft and Hallenberg, 2021). Arguably, there has never been a greater need for evidence to inform effective police practices, from which the police and the public will benefit. As the journey of EBP continues, debates have moved beyond the strengths and weaknesses of its approach, its role in professionalisation and the nature of evidence.

Contemporary EBP research focuses on the generation of evidence of what practices or tactics 'work'. However, the volume of practitioner generated evidence will grow significantly over the forthcoming years, given the number of student officers required to demonstrate their knowledge of the research process by undertaking research projects as part of the PEQF curriculum. This raises the question of how this new 'evidence' will be harnessed and translated into practice. Arguably, the nature of future debate is likely to focus on making the promises of EBP a reality in practice, especially given the emphasis on evidence-based practice within the PEQF. Space ought to be given to consider how best to achieve successful capacity building within organisations and amongst all officers, in which 'the optimum mix in specific contexts of culture, memory, local knowledge and skills' are enabled within the workplace to form the knowledge base to inform EBP (Davies *et al.*, 2021, p.699). The debate will naturally shift towards assessing how successful the PEQF has been in improving standards in policing, and within this debate, in what ways and through what mechanisms it has helped to implement and embed evidence-based practice within policing.

Research must also turn to focus on defining precisely what the role of 'evidence' (as a unique combination of cultural, experiential and formal knowledge) ought to be and exactly how its use might be realised in the workplace. Whatever the role of this evidence in frontline practice, significant or otherwise, without a consensus on how this might be achieved, there can be no clear way to approach the enduring issue of integration into officers' professional practice. Furthermore, attention must be focused on evidence-based implementation and, therefore, the generation of evidence which supports the successful blending of research evidence with experiential knowledge. Cockcroft (2020, p.118) argues that it is 'culturally derived knowledge' that has 'real-world utility' in helping officers understand the value of formal knowledge in their everyday roles. Of equal importance is how to make such evidence readily accessible to practitioners who are 'without the luxury of time and vast libraries' (Fleming *et al.*, 2015, p.249) and who have pragmatic concerns about time and resources associated with the operational demands of their role (Fleming, 2020).

Whilst this study lays the foundations for future research in that it offers further evidence of frontline officers' receptivity to research, a natural progression would be to examine officer receptivity to research within different roles with UK policing organisations, for example, in vulnerability, public protection and cybercrime. Beyond the UK, research may also consider a comparative approach to EBP research, given the broader context of evidence-based policy and international interest. Likewise, new research might re-explore higher ranks' receptivity to research, learning and development, given their role in creating a receptive and supportive organisational culture. Beyond the internal, structural issues facing senior officers in policing organisations, it is also vital to understand how senior leaders engage with their political counterparts around questions of operational independence and the use of EBP in police practice. The nature of future debate is likely to examine what democratic governance looks like in an age of EBP and how far democratic oversight can reach (Rowe, 2020).

Finally, whilst this study has offered important and valuable insights into the sergeant's role in EBP adoption and research implementation, it also underscores the need for studies which consider the role of rank in the adoption of EBP. This is particularly important if we are to move beyond the established rhetoric (and evidence) that officers are broadly 'receptive to research' and what have become the 'familiar narratives' of officers in the EBP debate (Fleming, 2020, p.171). The crux of 'getting the grease to the squeak' lies in pinpointing what and where this squeak might be. In this case, beyond research motive and role relevance, a squeak lies with the rank of sergeant. If the debate relating to the adoption of EBP within professional policing is to move forward, a deeper understanding of the sergeant's role and its influence on frontline practices and officers needs to be developed, especially given their role

in supporting and mentoring a new generation of officers (The Police Foundation, 2022). Future research which explores this is both timely and warranted, given the critical role that sergeants are likely to play in the successful integration of evidence into professional practice and thus the future professionalisation of the frontline policing role.

8.7. Final Reflections on Positionality

Having finally completed this study, I look back on the professional and personal journey I have undertaken to reach this stage with a profound sense of pride and achievement. The research process I have undertaken has required constant oscillation between managing the practical realities of undertaking a research study as a new researcher, and the ongoing reflexive process of interpreting my role, and that of my previous one, within the research itself. Given that the study has taken almost seven years to complete, I am acutely aware that whilst my positionality has fluidly changed during and throughout the study itself, this, in and of itself, has influenced each stage of the research process (Darwin Holmes, 2020). Throughout this study, I have strived to achieve what Ormston *et al.* (2014, p.8) articulate as 'empathetic neutrality', insofar as possible avoiding 'obvious, conscious, or systematic bias' and being 'neutral and non-judgmental when collecting, interpreting and presenting my data and findings (2014, p.8). Of course, this has coincided with the recognition that this is an aspirational goal which can never be fully attained, since no research, including police research, can ever be truly value-free (Greene, 2014).

Winter (1989) provides an analogy between research and the detective story, in which the detective comes to realise something profound about themself, through the investigation. As I move towards the end of my PhD journey, I have come to understand that I am neither an insider nor an outsider, to policing or academia, but a blended mix of the two. It is context-dependent, and that is to be welcomed. I am settled and accepting of this new position, both within the framework of this study, and more broadly in my current role, and I am a more reflexive researcher as a result. I have also come to understand that reflexive judgement, namely the ability to evaluate and process information to arrive at credible conclusions, is a humanistic endeavour. In navigating this study, I have, through a reflexive approach, wrestled with my positionality throughout, and thus conducted a study which I believe is ethical, authentic and honest. I also believe I have emerged as a capable and more thoughtful researcher as a result.

In beginning this study, I sought to illuminate the viewpoints of operational officers regarding the role and value of research within frontline policing. This was from a personal motivation, rooted in my experiences as a police officer, to give a voice to the officers whose voices often go unheard within policing organisations (Thacher, 2008). In completing this study, I have achieved what set out to do. I have given a voice to frontline officers in this regard and in doing so, I have found my own.

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Appendices

Appendix One:

Questionnaire Survey Instrument

Evidence Based Policing and the Frontline

Page 1: Survey Information

You are being invited to participate in this online survey relating to a research study titled,

Getting the Grease to the Squeak: Understanding the operational and cultural context in which science, technology and evidence can enhance police practice.

This study is being conducted by Lynsey Pinchen who is undertaking a PhD at Northumbria University. The researcher is not an employee of your organisation and has not been comissioned by your organisation to carry out this research. You do not have to take part in this research if you not wish to do so, it is purely voluntary. You may withdraw from this research at any time, up until the final submission page for your survey responses. Permission has been granted by the Chief Executive of your organisation to take part in this survey during your working day.

· What is this study about and why should you take part?

This study aims to examine how police culture affects front-line officers working practices, particularly those which come from 'Evidence Based Policing' (EBP) research. By gathering opinions from front-line officers on the EBP tactics they use them, it is hoped that this research will provide an alternative perspective as to how research can be effectively used in front-line policing roles.

· What are you being asked to do?

You are being asked to complete this anonymous survey which will take approximately 10 minutes to complete. It does not require you to type any answers, only to provide graded responses. The questions relate to your everyday working practices as a front-line police officer.

What will happen to data collected from the survey?

Should you agree to take part, the data you provide will be managed and held securely on a Bristol Online Survey server in compliance with their security policies. You will not be asked to provide your name or collar number, and your identity will not be known to the researcher or your organisation. The data obtained from this survey will be used within the researcher's PhD thesis and subsequent reports and articles which may be published. Data

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from this survey will be retained until the successful conclusion of the researcher's PhD and then destroyed. Research findings will be provided to your organisation after the research program has been completed (June 2017).

Your Consent

By continuing beyond this page to answer the questions in this survey it is assumed that you fully consent to taking part in this research. If you do not consent to taking part, please do not proceed beyond this page. Your consent is conditional upon the University complying with its duties and obligations under the UK Data Protection Act 1998 and EU Data Protection laws.

If you have any questions or concerns about this research, or wish to withdraw from the research, please contact Lynsey Pinchen at lynsey.pinchen@northumbria.ac.uk.

If you wish to make a complaint about the research, report something about the research that you are unhappy with, or talk to someone other than the research team about your rights as a research subject, please contact Charlotte Bilby, Faculty Ethics Director, at charlotte.bilby@northumbria.ac.uk.

Pag	ge 2: About you
1.) H	low old are you?
C 2 C 3 C 4	8 to 24 years old 55 to 34 years old 55 to 44 years old 55 to 54 years old 55 years or older Prefer not to say
2. V	What ethnicity are you?
C A	White Asian or Asian British Black or Black British Chinese or Other Ethnic Group

3. What sex are you?

- ← Male
- C Female

C MixedC Prefer not to say

- C Transgender
- C Prefer not to say

4. What best describes your sexual orientation?

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← Heterosexual
C Lesbian
← Gay
← Bi-sexual
How may years service have you completed as a police officer?
C 0 to 1 years service
C 1 to 2 years service
C 2 to 8 years service
C 8 to 15 years service
C 15 years service or more
1 15 years service or more
6. What rank are you?
C Constable
← Sergeant
7. What role do you predominantly fulfil?
What fole do you predominandy lumi?
← Emergency Response Policing
C Community Policing
Which police organisation do you work for?

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Which best describes your current geographical area of work?					
← Rural ← Urban					
Mix of Urban/Rural					
10. What is the highest level of educational qualification you hold?					
← GCE/GCSE					
↑ A level/NVQ					
C HNC/HND					
C Undergraduate degree					

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Postgraduate degree
 PhD or other higher degree
 None of the above

Page 3: Your Understanding of EBP

 Of the following phrase ased Policing' 	s, which three in your opinion	n best define the term "Evidence
Please select exactly 3 answer Scientifically tests police methods Provides different policing tactical options Provides new technologies for police use	(s). Proactively manages police resourses Provides cost effective police methods Scientifically tracks police methods	☐ Identifies what policing tactics work best ☐ Supports policing decision making ☐ Other
2.a. If you selected Other,	please specify:	

13. Please rate your level of **understanding** of the following examples of Evidence Based Policing tactics

	Excellent	Good	Average	Poor	No
	understanding	understanding	understanding	understanding	understanding
Positive Arrest at domestic violence incidents	r	г	г	г	r

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Body Wom Video	Е	г	г	г	г
Diversionary Schemes (e.g. youth's, women's)	г	г	г	г	г
'Restorative Justice' Resolutions	г	Г	г	г	Г
Targeted patrol in hot spot areas	r	г	г	r	г

14. How many occasions over the last six months have you accessed the following for guidance on Evidence Based Policing tactics?

	0 occasions	1 to 2 occasions	3 to 4 occasions	5 to 6 occasions	7 or more occasions
College of Policing website	г	г	г	г	г
College of Policing written briefing material	Е	г	г	г	г
Academic papers/ journals	г	г	г	г	г
NCALT (or other online training package)	г	г	г	г	г
Force Intranet	г	г	г	г	г
Society for Evidence Based Policing (SEBP) website	п	r	r	r	г -
Authorised Professional Practice (APP) website	г	г	г	г	г
Classroom based training session	г	г	г	г	г

Guidance from supervisor	Г	г	г	Г	Г

15. Are you aware of any ongoing EBP research projects being carried out within your force by:

	Yes	No
Police Officers	П	г
Police Staff	П	г
Police Analysts	П	г
Senior Police Officers (chief inspector or above)	П	г
University Academics	П	г
External Consultants	П	г
Other	П	г

Page 4: Effectiveness of EBP Tactics

16. In your opinion how effective are the following EBP tactics in fighting crime?

	Very effective	Somewhat effective	Neither effective nor ineffective	Somewhat ineffective	Ineffective
Positive Arrest at domestic violence incidents	г	г	г	г	г
Body Worn Video	П	г	г	г	г
Diversionary Schemes (e.g. youth's, women's)	г	г	r	г	г
'Restorative Justice' Resolutions	П	Г	г	г	г
Targeted patrol in hot spot areas	г	Г	г	г	г

17. In your opinion how effective are the following EBP tactics in serving the public?

	Very effective	Somewhat effective	Neither effective nor ineffective	ffective nor Somewhat ineffective	
Positive Arrest at domestic violence incidents	г	Г	г	Е	г
Body Worn Video	Г	Г	г	г	г
Diversionary Schemes (e.g. youth's, women's)	г	г	г	г	г
'Restorative Justice' Resolutions	П	Г	г	г	г
Targeted patrol in hot spot areas	г	г	г	г	г

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18. To what extent do you agree with the following statements?

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
Policing is a craft learned through 'on the job' experiences	г	г	г	г	г
Operational experience is more valuable to police officers than research based tactics	г	г	г	r	г
There are enough officers to meet demand	г	г	г	г	г
EBP tactics should support existing police practices not replace them	г	г	г	г	г
Operational policies are there to be followed even if I don't agree with what they say	г	г	г	г	г
I am suspicious of research being carried out by police staff within my force	г	г	г	r	r
I take short cuts to get through my daily workload	г	г	г	г	г
I prefer to work on my own so that I can use my discretion when and how I see fit	г	г	г	r	г
Research is of value to me in my day-to-day role	г	г	г	г	г
EBP tactics lessen the opportunity for me to use my discretion	г	г	г	г	г
I am happy to implement EBP tactics where I believe they would help victims	г	г	г	r.	г

Discretion allows me to apply my own judgement in real life situations	г	г	г	г	г
I am more likely to implement EBP tactics if they are measured by individual performance measures	г	г	г	r	г
Use of EBP tactics is likely to increase the time I spend on paperwork	г	г	-	г	г

Page 6: Supervisors and EBP Tactics

19. To what extent do you agree with each of the following statements?

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
My daily work priorities are different to what my senior managers expect them to be	Е	г	г	г	г
The extent to which I comply with a supervisor's instruction is dictated by how legitimate I believe the instruction to be	n	г	г	r.	r.
The discretional shortcuts I use in my day to day role are unlikely to be approved of by senior managers	г	г	г	r	r
It is right that officer discretion is controlled in certain circumstances and not in others	Е	г	г	г	г
My daily work priorities are different to what my supervisor/s expect them to be	Е	г	г	г	г
If I do not agree with my supervisor/s on how to deal with an incident I use my discretion to find ways around it	Е	г	г	r	г
It is important to me to be told why I am being asked to implement EBP tactics	Е	г	г	r	r
My supervisor/s are more likely to implement EBP tactics if they are measured by performance figures	г	г	-	r	r
I am sceptical of the benefits of new research projects being introduced in my organisation	г	г	-	г	г

If I do not agree with force policy on how I should deal with an incident I use my discretion to find ways around it	г	г	Е	г	г
I prioritise my workload based upon what I believe to be most important tasks at the time even if these are not in line with my supervisor/s ideals	г	г	Г	г	г
My supervisor/s are more likely to implement EBP tactics if it is beneficial to their promotion prospects	r.	г	r	r	r
The discretional shortcuts I use in my daily role are accepted by my supervisors as a way of 'getting the job done'	r.	г	_	r	r
I am wary of EBP tactics which control officer discretion	Г	г	Г	г	г

Page 7: Using EBP Tactics

20. Considering your use of Positive Arrest as a tactic for dealing with domestic violence incidents, to what extent do you agree the following statements?

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
I use my discretion at DV incidents and arrest only if I believe it to be the correct action given the circumstances	E.	г	п	r	r
There are times I do not arrest when strictly speaking force policy says I should	г	г	г	r.	г
I only arrest a DV suspect when my experience tells me it will help the victim	г	г	г	r.	г
I only make an arrest at a DV incident if it does not impact on my workload	г	г	г	r	г
A Positive Arrest policy does not limit my use of discretion when dealing with DV incidents	г	г	г	r	г
Positive Arrest is an effective EBP tactic for use in my role	г	г	г	г	г
I believe arresting a suspect at a DV incident is justified even if the victim does not agree	п	г	г	r.	г

21. Considering your use of **Restorative Justice Resolutions** (RJR) as a tactic for dealing with low level incidents, to what extent do you agree with the following statements?

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
I use RJR when my experience tells me they will benefit the suspect	г	г	г	r.	г
Use of RJR at an incident is a matter for the attending officer alone to decide	г	г	п	F.	г
I use RJR when my experience tells me they will be beneficial for the victim	г	г	г	г	г
I only use RJR if their use does not impact on my workload	г	г	г	г	г
Use of RJR limits my discretion when dealing with incidents	г	г	г	г	г
I look for less time consuming ways than RJR when dealing with incidents	г	г	г	r	г
Use of RJR is an effective tactic for use in my role	г	г	г	г	г
I use RJR when my experience tells me they will be beneficial for the suspect	г	г	г	r	r
I use RJR when my experience tells me it will save me time in dealing with an incident	г	г	r.	r	r

22. Considering your use of **Body Worn Video** (BWV) as a tactic for use in police incidents, to what extent do you agree with the following statements?

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
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I use BWV when my experience tells me it will be beneficial for the victim	г	г	г	г	r
Use of BWV at an incident is a matter for the officer alone to decide	г	г	r	г	г
I only use BWV if its use does not impact on my workload	г	г	г	г	г
Use of BWV does not limit my discretion when dealing with an incident	г	г	г	г	r
I use BWV when my experience tells me it will be beneficial for the suspect	г	г	г	г	r
Use of BWV is an effective tactic for use in my role	г	г	г	г	г
The main reason I use BWV is to protect myself from complaints	П	г	Г	г	г

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23. To what extent do you agree with the following statements?

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
I am more likely to implement EBP tactics if my colleagues are doing so	г	г	г	г	г
Discretion allows me to adapt policies when dealing with incidents	г	г	Е	г	г
I would be interested in carrying out research in my workplace	г	г	г	г	г
Police culture acts as a barrier to implementing EBP tactics on the frontline	г	г	п	r	г
Policing incidents are complex and cannot be resolved using research based methods alone	г	г	п	r	г
I am suspicious of research being carried out by external academics within my organisation	г	г	г	г	г
EBP tactics are tools for me to use in my role	г	г	г	г	г
The more discretion I am allowed the more likely I am to implement EBP tactics	г	г	п	r	г
I am suspicious of research being carried out by police officers within my organisation	г	г	п	r	г
If EBP tactics were directly shown to me to be useful to my role I would use them more often	г	г	г	r	г
I do not have time within my daily role to carry out research	г	г	г	г	г

I do not need to know about academic research, just how to use the EBP tactics which come from research	r	г	Е	г	г
I would be interested in evaluating EBP tactics in my workplace	г	г	Г	г	г
I am more likely to use EBP tactics if their purpose has been clearly explained to me	г	г	г	r	г
EBP tactics are the latest policing fad	г	г	г	г	г
EBP tactics cannot be fully integrated in a policing environment	г	г	г	г	г
Access to information on EBP tactics is key to their success in the workplace	г	г	г	г	г

Page 9: Future Use of EBP Tactics

24. How likely are the following to encourage you to use EBP tactics in your role?

	Very likely	Likely	Neither	Unlikely	Very unlikely
Access to EBP academic journal articles via the Force IT system	г	г	г	г	г
Face to face classroom based EBP training	П	г	Е	П	Г
The opportunity to be involved in carrying out basic research	г	г	г	г	г
Clear communication explaining the purpose of EBP tactics used in my workplace	г	г	г	г	г
Access to EBP training material on multiple platforms (e.g mobile app, tablet, podcast)	г	г	г	г	г
Threat of disciplinary action if I don't use EBP tactics	г	г	г	п	г
Opportunity to gain professional qualifications associated with EBP	Е	г	г	г	г
Clear explanation where EBP tactics are being used within my organisation	г	г	г	п	г
EBP online training packages (e.g. NCALT)	г	г	Е	П	Г
Performance indicators linked to my use of EBP	г	г	г	г	г
Being part of an EBP working group	г	г	г	г	г
Supervisor support for the use of EBP tactics	П	г	г	П	Г
Clear explanation of how to use EBP tactics within my role	г	г	г	г	г
Updates about research results within the organisation which are relevant to my rank	П	г	г	п	Г

Use of EBP tactics linked to my Professional Development Record (PDR or similar)	г	г	г	г	г
Clear explanation of research aims and objectives when I am involved in police research projects	г	г	г	-	г
Clear updates about research results within the organisation which are relevant to my role	П	г	г	г	г
Use of EBP tactics linked to my promotion prospects	П	г	г	г	г
Regular updates about research outcomes within the organisation	г	г	г	г	Г

Page 10: Focus Group Participation

25. Would you be prepared to take part in a one hour Focus Group conducted by the researcher, within your force at a later date?			
25.a. Please provide an email address or telephone number which will allow the researcher to make contact with you directly with further details of the Focus Group sessions should you wish to take part. This information will be kept separately from your survey responses.			
Your answer should be no more than 100 characters long.			

Page 11: Thank you

Key for selection options

11 - How would you rate your level of understanding of the term Evidence Based

Excellent understanding Good understanding Average understanding Poor understanding No understanding

25 - Would you be prepared to take part in a one hour Focus Group conducted by the researcher, within your force at a later date? Yes

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No

Appendix Two:

Questionnaire Email Introduction

Dear Officer,

My name is Lynsey Pinchen and I am an ex uniform police sergeant now studying for a PhD at Northumbria University. I am not employed by your organisation and my research is being funded by a Research Councils UK Studentship. I am emailing you as a front-line police constable or sergeant to ask you take part in my research by completing a short, anonymous online survey based upon your everyday working practices and your opinions relating to 'Evidence Based Policing'.

My study aims to examine how police culture affects front-line officers working practices, particularly those which come from 'Evidence Based Policing' (EBP) research. By gathering opinions from front-line officers on which EBP tactics they use in their every-day role and how they use them, I am hoping that my research will provide an alternative perspective as to how research can be used effectively on the front-line. **Your opinions are invaluable to my research.**

If you are happy to complete this survey, please click on the link below which will take you to the Bristol Online Survey website where further information is provided. Permission has been granted by your organisation for you to complete this survey during your working day.

«url»

Many thanks for taking the time to read this email, I know your time is precious.

Yours sincerely,

Lynsey Pinchen

Appendix Three:

Questionnaire Participant Information and Consent Sheet

You are being invited to participate in this online survey relating to a research study titled,

Getting the Grease to the Squeak: Understanding the operational and cultural context in which science, technology and evidence can enhance police practice.

This study is being conducted by Lynsey Pinchen who is undertaking a PhD at Northumbria University. The researcher is not an employee of your organisation and has not been commissioned by your organisation to carry out this research. You do not have to take part in this research if you do not wish to do so, it is purely voluntary. Permission has been granted by the Chief Executive of your organisation to take part in this survey during your working day.

What is this study about and why should you take part?

This study aims to examine how police culture affects front-line officers working practices, particularly those which come from 'Evidence Based Policing' (EBP) research. By gathering opinions from front-line officers on the EBP tactics they use them, it is hoped that this research will provide an alternative perspective as to how research can be effectively used in front-line policing roles.

What are you being asked to do?

You are being asked to complete this anonymous survey which will take approximately 10 minutes to complete. It does not require you to type any answers, only to provide graded responses. The questions relate to your everyday working practices as a front-line police officer.

• What will happen to data collected from the survey?

Should you agree to take part, the data you provide will be managed and held securely on a Bristol Online Survey server in compliance with their security policies. You will not be asked to provide your name or collar number, and your identity will not be known to the researcher or your organisation. The data obtained from this survey will be used within the researcher's PhD thesis and subsequent reports and articles which may be published. Data from this survey will be retained until the successful conclusion of the researcher's PhD and then destroyed. Research findings will be provided to your organisation after the research program has been completed (June 2017).

Your Consent

By continuing beyond this pg. to answer the questions in this survey it is assumed that you fully consent to taking part in this research. If you do not consent to taking part, please do not proceed beyond this page. Your consent is conditional upon the University complying with its duties and obligations under the UK Data Protection Act 1998 and EU Data Protection laws.

If you have any questions or concerns about this research, or wish to withdraw without prejudice from the research, please contact Lynsey Pinchen at lynsey.pinchen@northumbria.ac.uk.

If you wish to make a complaint about the research, report something about the research that you are unhappy with, or talk to someone other than the research team about your rights as a research subject, please contact Charlotte Bilby, Faculty Ethics Director, at charlotte.bilby@northumbria.ac.uk.

Appendix Four:

Q-sort Statement Items

- 1 Police work is a craft not a science
- 2 Operational experience is more valuable to officers than research based tactics
- 3 Research based tactics should support existing police practices not replace them
- 4 I am suspicious of research being carried out by police staff within my force
- 5 Police academic research is of value to me in my day-to-day role
- 6 Research based tactics lessen the opportunity for officers to use their discretion
- 7 Research based tactics are more likely to be used if they are measured by individual performance figures
- 8 It is important for officers to be told why they are being asked to use research based tactics
- 9 Supervisors are more likely to implement research based tactics if they are measured by performance figures
- 10 Supervisors are more likely to implement research based tactics if to do so is beneficial to their promotion
- 11 I am wary of research based tactics which control officer discretion
- 12 Officers are more likely to use research based tactics if their colleagues are doing so
- 13 Police culture acts as a barrier to implementing research based tactics on the frontline
- 14 Policing incidents are complex and cannot be resolved using research based methods
- 15 I am suspicious of research being carried out by external academics within my organisation
- 16 The more discretion research based tactics allow the more likely they are to be used by officers
- 17 I am not suspicious of research being carried out by police officers within my organisation
- 18 Officers are too busy within their daily role to carry out research themselves
- 19 Officers are more likely to use research based tactics if their purpose has been clearly explained
- 20 Research based tactics cannot be fully integrated in a policing environment
- 21 Officers are more likely to use research based tactics if they are genuinely supported by their supervisor
- 22 It is appropriate that officers should be expected to use research based tactics in their role
- 23 Police officers whatever their rank should not be carrying out research in their role
- 24 Police academic research is best carried out by external researchers
- 25 I am open to using new police tactics which come from academic research
- 26 Research based tactics are helpful to me in my role
- 27 There is a real need for academic research which supports frontline officers in what they do
- 28 Generally speaking frontline police tactics are outdated
- 29 Police academic research should drive all frontline practices
- 30 Officers are more likely to use research based tactics if they are accepted by their team
- 31 Police officers told by a senior officer to use research based tactic should do so without question
- 32 Officers do not need to know if they are being used to carry out research within their organisation
- 33 The tactics officers are told to use do not appear to have any research based evidence to support their use
- 34 Academic police research should play a greater role in deciding which frontline tactics should be used
- 35 Officers will use research based tactics if they are genuinely supported by their senior managers
- 36 The decisions officers make in policing situations should not be controlled by research based tactics
- 37 I value the use of my discretion above all other police officer skills
- 38 Research based practice is the latest policing fad
- 39 Academic research has no real value when it comes to dealing with everyday policing incidents
- 40 Police work is about responding quickly to situations, not waiting for research results to come to fruition
- 41 I don't care where the tactics I use originate from, just that they are effective in helping me in my role
- 42 Officers do have time within their daily role to take part in research projects

- 43 Officers do not need to know in-depth details of academic research, just that the tactics help them in their role
- 44 Research based tactics have been created to save money
- 45 Research based tactics should be developed to help offenders stop re-offending
- 46 Police academic research has no place in frontline policing
- 47 Research based tactics have been developed to help officers in their daily role
- 48 Areas for future academic research should be identified by frontline officers carrying out the role

Appendix Five:

Post Q-sort Questionnaire

not included?

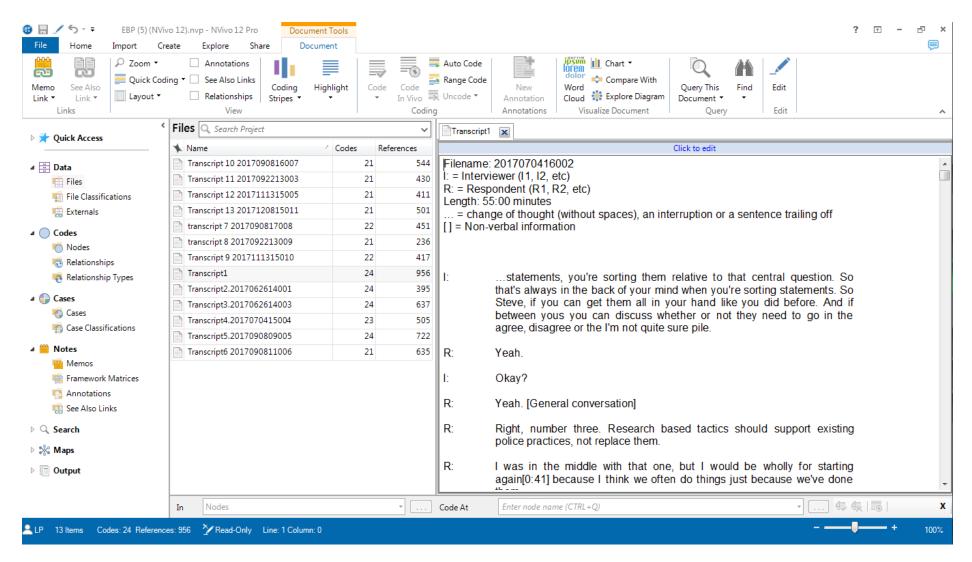


Please provide answers to the following questions in as much detail as you can. Answering these questions will help the researcher understanding your reasoning in your positioning of some of your items.

1.	Why have you placed the TWO items you have at a ranking of -5, MOST DISAGREE? Please briefly explain your reasoning.
2.	Why have you placed the THREE items you have at a ranking of -4, MOST DISAGREE? Please briefly explain your reasoning.
3.	Why have you placed the TWO items you have at a ranking of +5, MOST AGREE? Please briefly explain your reasoning.
4.	Why have you placed the THREE items you have at a ranking of +4, MOST AGREE? Please briefly explain your reasoning.
5.	Finally, are there any statements/ items which you feel are missing from the pack of 48 which might provide a further answer to the research question which the researcher has

Appendix Six:

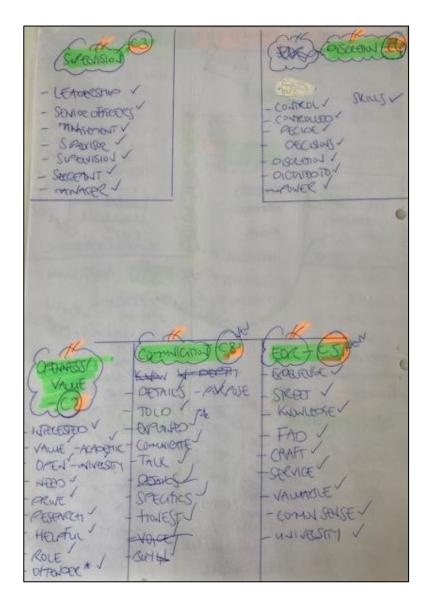
List of Transcripts

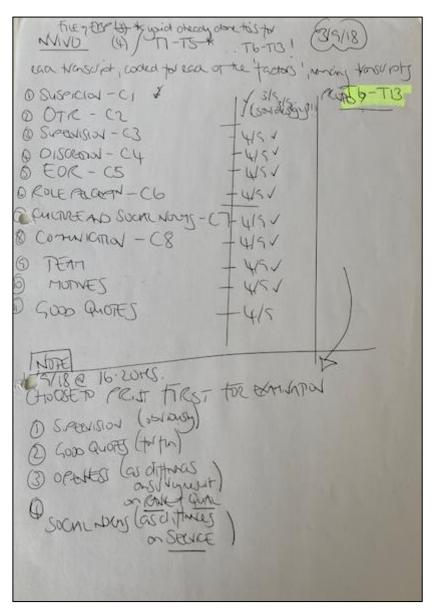


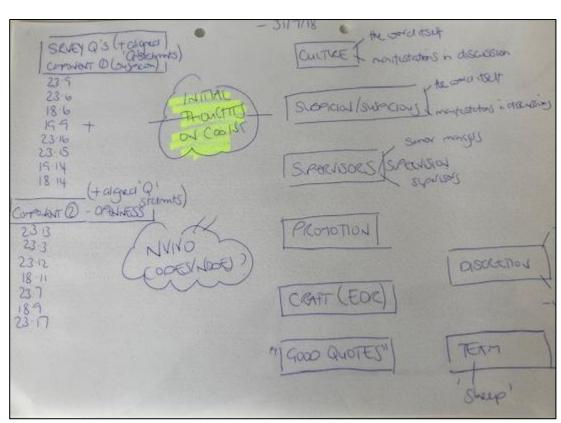
Appendix Seven:

Initial Coding Sheets



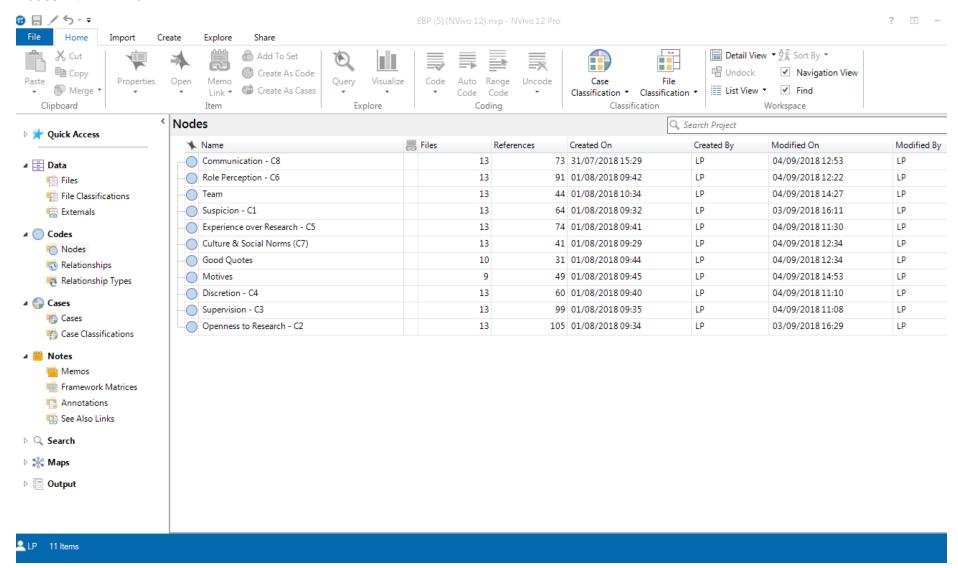






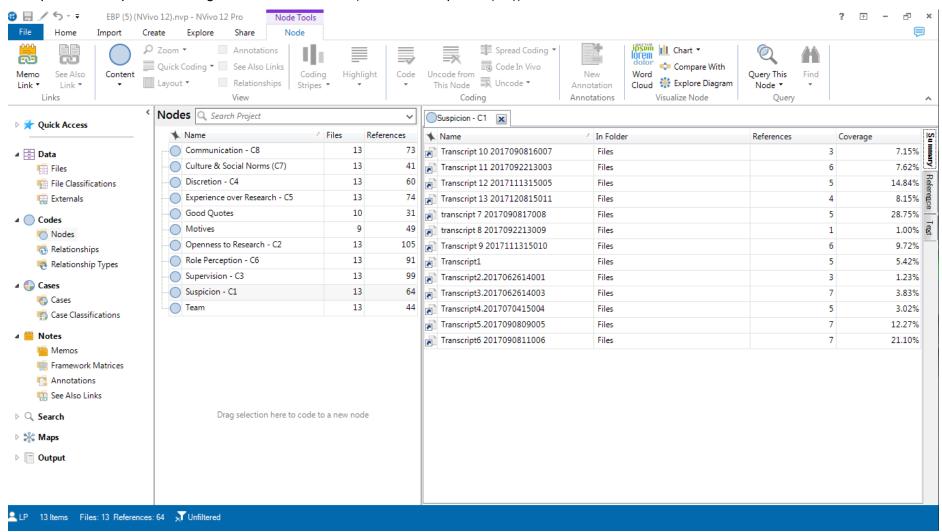
Appendix Eight:

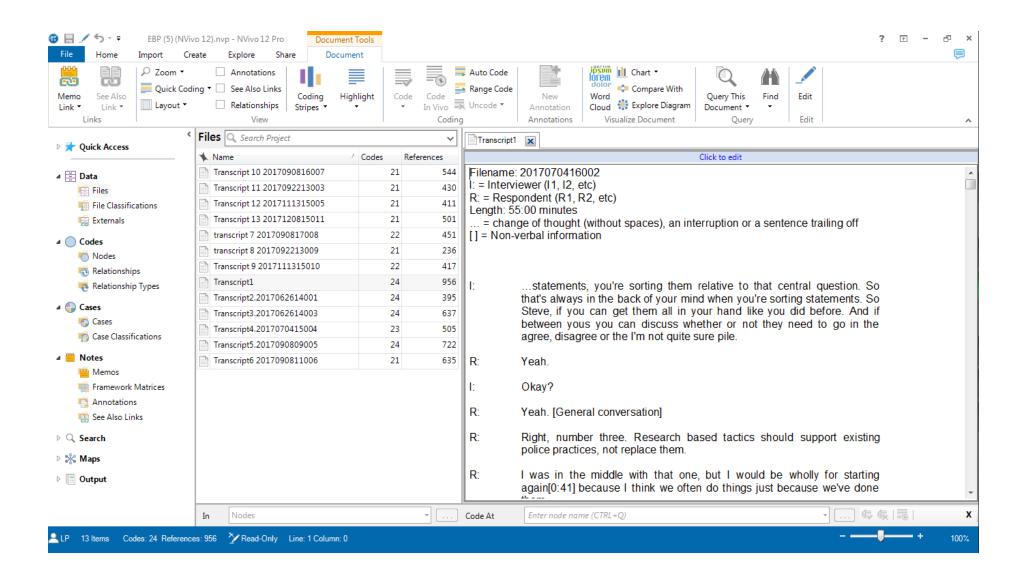
Nodes within NVivo

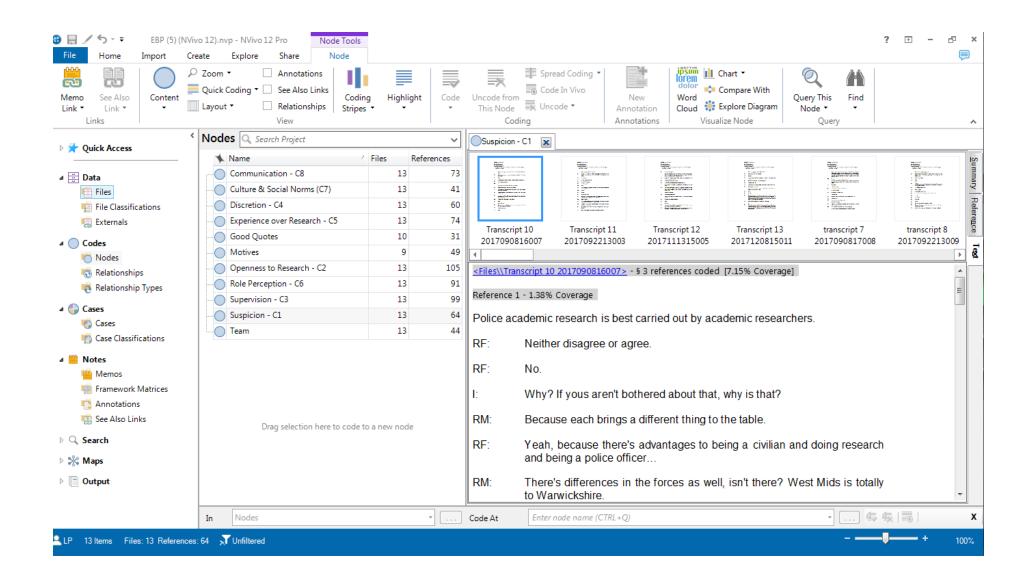


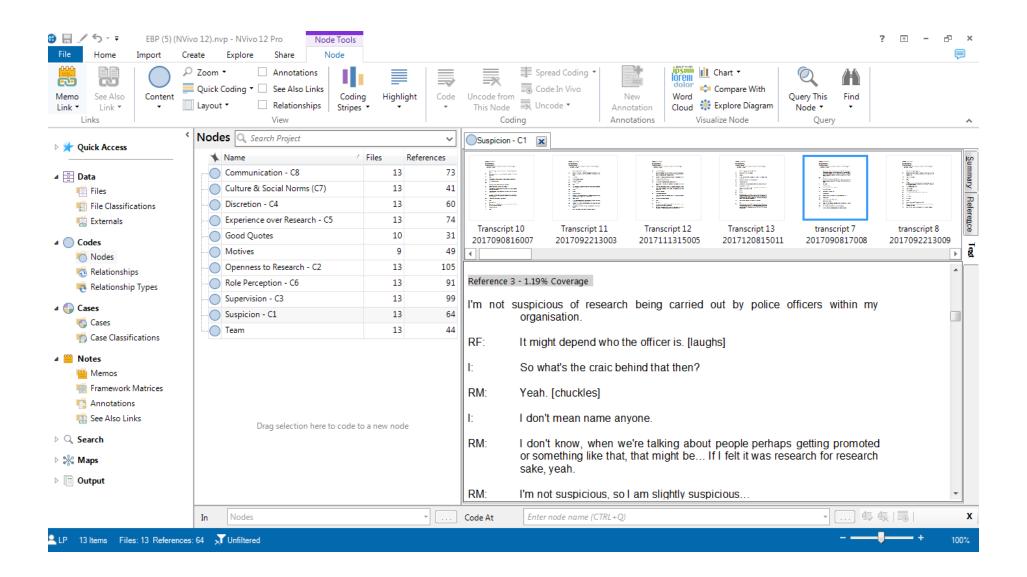
Appendix Nine:

Group Q Transcript with Coding and Node Allocation (related to suspicion (C8))









Appendix Ten:

Q-methodology Participant Information Sheet



Thank you for agreeing to take part in this focus group relating to a research study titled,

Getting the Grease to the Squeak: Understanding the operational and cultural context in which science, technology and evidence can enhance police practice

This study is being conducted by Lynsey Pinchen who is undertaking a PhD at Northumbria University. The researcher is not an employee of the organisation you work for. You do not have to take part in this focus group if you do not wish to do so, it is purely voluntary and you can withdraw at any time, you need just inform the researcher present.

What is this study about?

This study aims to look at how police culture influences frontline officers and their working practices particularly those which come from police academic research and 'Evidence Based Policing' (EBP).

EBP as a form of police academic research has been identified as an effective means through which evidence obtained from scientific research can support policing methods and procedures (Paoline *et al.*, 2000; Lum *et al.*, 2011; Sherman 2013; Bedford & Mazerolle 2014). Common examples of police tactics which come from research include Positive Arrests DV incidents, Body Worn Video, Restorative Justice Resolutions and Diversion Schemes. Each of these examples presents a real opportunity to enhance police practice by using research-based science, technology and evidence. Whilst there is much existing research highlighting the potential for research and EBP to enhance police practice, there is little if any research which examines the way in which police culture affects the adoption of research and EBP on the frontline in everyday policing situations. This research aims to fill this important gap in that knowledge by gathering the opinions of officers on the frontline who implement the tactics which come from such research.

What will you be asked to do?

During this focus group, you will be asked firstly as an individual to sort 48 statements relating to your role as a police officer onto a grid provided. You do not need any pre-requisite knowledge of police research, the 48 statements all relate to various aspects of your everyday role as a frontline police officer. After completing the first 'sort' individually you will then be asked to carry out the same sorting process again this time however in a small group consisting of other officers from the focus group. After completing both the individual and the group 'sort', the researcher will ask the group for comments relating to the group 'sorts' they have produced.

This focus group will take no longer than 60 minutes and will involve 7 to 10 frontline police officers of your rank and the researcher. This focus group will be audio recorded to allow the researcher to transcribe what is said during each focus group for analysis. Any comments made within the focus group will not be attributed to any particular individual, however as there will be other officers in the group, it is not possible to guarantee complete anonymity. You will be asked to sign a consent form

agreeing that you will respect the confidentiality of other participants by not discussing focus group content outside of the group.

What will happen to data collected during this focus groups?

Handwritten notes made by the researcher during the focus groups will be kept in a locked and secure environment on university premises and destroyed upon completion of the researcher's PhD.

Audio recordings will be transferred from the researcher's digital recording device to the researcher's password protected Northumbria University account as soon as practicable. Once this has occurred the original files will be deleted from the recording device. The audio files will be deleted upon completion of the researcher's PhD.

Research findings will be provided to you as a research participant in the form of a brief summary document after the research program has been completed (May 2018).

What happens if you do not wish to take part in this study?

If you do not wish to take part in this study you need just inform the researcher present of your wish to not take part.

How you can make contact with the researcher after the focus group?

If you have any queries regarding this research and your participation, or wish to discuss this matter further please contact:

Lynsey.pinchen@northumbria.ac.uk

Appendix Eleven:

Q-methodology Consent Form



Dear Participant,

You have agreed to take part in a focus group relating to a research study titled,

Getting the Grease to the Squeak: Understanding the operational and cultural context in which science, technology and evidence can enhance police practice

This study is being conducted by Lynsey Pinchen who is undertaking a PhD at Northumbria University. The researcher is not an employee of the organisation you work for. You do not have to take part in this research if you do not wish to do so, it is purely voluntary and you can withdraw at any time you need just inform the researcher. Please read the following statements:

Consent

I consent to take part in this research.

I have had the research explained to me by the researcher and have read a copy of the Focus Group Participant Information sheet (Form LP/2a). I have read and understand the aims and purpose of the study.

I am willing to be take part in this focus group.

I understand that the focus group discussions I will be involved in will be audio-recorded and notes will be taken by the researcher.

I understand that I can withdraw my consent at any time, without giving a reason and without prejudice.

I know that my name and details will be kept confidential and will not appear in any printed documents.

I understand that the digital recordings and any personal information will be kept secure and confidential by the researcher. I understand that they will be kept by the researcher until the end of the project and will then be disposed of in accordance with Northumbria University's retention policy.

I am aware that anonymised summaries will be produced from the discussions to be used in the research report and in other publications.

I understand that none of the participants will be identified in the project report or in other publications based on this project.

I understand that complete anonymity cannot be guaranteed given that I am to take part in a focus group with other participants. I agree to protect the anonymity of both myself and other participants by not disclosing any focus group content or comments outside of the focus group.

I am aware that copies of any reports or publications will be available on request to participants.

I understand that I should I require a copy of this consent form I need just inform the researcher.

Signed (participant):	Signed (researcher):	Date:
- 8 (-	8 (,	

Should you wish to complain on the grounds of ethics please contact: charlotte.bilby@northumbria.ac.uk

Appendix Twelve:

Demographical Information Form



Please provide the following characteristics by circling the answers which are applicable to you. Please note **you will not be identified** by this data, it purely to assist the researcher in interpreting findings from this focus group.

1. How old are you?

18 to 24 years old 25 to 34 years old 35 to 44 years old 45 to 54 years old 55 years or older

Prefer not to say

2. What ethnicity are you? geographical area of work?

White
Asian or Asian British
Black or black British
Chinese or other Ethnic Group

Mixed

Prefer not to say

3. What gender are you? educational qualification?

Male Female Transgender Prefer not to say

4. What best describes your sexual orientation?

Heterosexual Lesbian Gay Bi-sexual Prefer not to say

5. How many years service have you served as a police officer?

0 to 1 years service 1 to 2 years service 2 to 8 years service 8 to 15 years service 15 years service or more 6. What rank are you?

Constable Sergeant

7. What role do you predominantly fulfil?

Emergency Response Policing Community Policing

8. What describes your current

Rural Urban

Mix of Urban/Rural

9. What is your highest level of

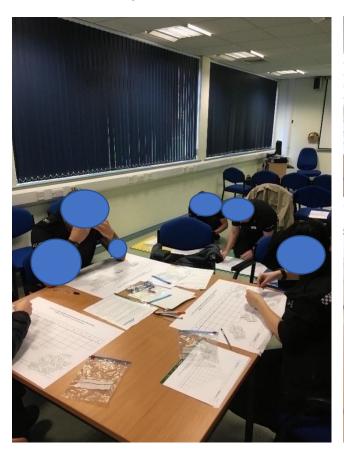
GCE/ GCSE
A Level/ NVQ
HNC/ HND
Undergraduate degree

Postgraduate degree PhD or other higher degree

None of the above

Appendix Thirteen:

Officers completing individual Q-sorts





Appendix Fourteen:

Questionnaire statement	Exclusion criteria
1 18.1. Policing is a craft learned through 'on the job' experiences	Similar Q, no SSDs
2 18.2. Operational experience is more valuable to police officers than research based tactics	Direct Q, no SSDs
3 18.3. There are enough officers to meet demand	Removed
4 18.4. EBP tactics should support existing police practices not replace them	Similar Q, no SSDs
5 18.5. Operational policies are there to be followed even if I don't agree with what they say	Removed
6 18.7. I take shortcuts to get through my daily workload	Removed
7 18.8. I prefer to work on my own so that UI can use my discretion as I see fit	Removed
8 18.11. I am happy to implement EBP tactics where I believe they would help the victim	Not Q or similar, no SSDs
9 18.12. Discretion allows me to apply my own judgement in real life situations	Removed
10 18.13. I am more likely to implement EBP tactics if they are measured by individual performance figures	Not Q or similar, no SSDs
11 18.14. Use of EBP tactics is likely to increases the time I spend on paperwork	Not Q or similar, no SSDs
12 19.1. My daily work priorities are are different to what my senior managers expect them to be	Removed
13 19.2. The extent to which I comply withh supervisor's instruction is dictated by how legitimate I believe it to be	Removed
14 19.3. The discretional shortcuts I use in my day to day role are unlikely to be approved of by senior managers	Removed
15 19.4. It is right that officer discretion is controlled in certain circumstances and not in others	Removed
16 19.5. My daily priorities are different to what my supervisor/expect them to be	Removed
17 19.6. If I do not agree with my supervisor/s on how to deal with an incident I would use my discretion to find a way around it	- Removed
18 19.9. I am sceptical of the benefits of new research projects being introduced in my organisation	Not Q or similar, no SSDs
19 19.1. If I do not agree with force policy on how to deal with an incident I would use my discretion to find a way around it	Removed
20 19.11. I priortise my workload based upon what I believe to the most important tasks at the time even if these are not in line	₩ Removed
21 19.13. The discretional shortcuts I use in my daily role are accepted by my supervisor/s as a way of 'getting the job done'	Removed
22 23.2. Discretion allows me to adapt policies when dealing with incidents	Removed
23 23.4. Police culture acts as a barrier to implementing EBP tactics on the frontline	Direct Q, no SSDs
24 23.5. Policing incidents are complex and cannot be resolved using research based methods alone	Direct Q, no SSDs
25 23.1. If EBP tactics were directly shown to me to be useful I would use them more often	Not Q or similar, no SSDs
26 23.11. I do not have time within my daily role to to carry out research	Similar Q, no SSDs
27 23.15. EBP tactics are the latest policing fad	Similar Q, no SSDs
28 23.16. EBP tactics cannot be fully integrated in a policing environment	Similar Q, no SSDs

Appendix Fifteen:

Questionnaire statement	Inclusion criteria
Receptivity to Research	
1 23.3. I would be interested in carrying out research in my workplace	Not Q or similar, SSDs (rank & HLAA)
2 23.13. I would be interested in evaluating EBP tactics in my workplace	Not Q or similar, SSDs (rank & HLAA)
3 23.7. EBP tactics are for me to use in my role	Not Q or similar, SSDs (rank & HLAA)
4 18.9. Research is of value to me in my day-to-day role	Direct Q, SSDs (rank & HLAA)
5 23.12. I do not need to know about academic research, just how to use EBP tactics which come from research	Not Q or similar, SSDs (rank & HLAA)
Challenges to Research	
1 18.6. I am suspicious of research being carried out by police staff within my organisation	Direct Q, SSD (rank & HLAA)
2 23.6. I am suspicious of research being carried out by external academics within my organisation	Direct Q, SSD (rank & HLAA)
3 23.9. I am suspcious of research being carried out by police officers within my organisation	Direct Q, SSD (rank & HLAA)
4 19.7. It is important to me to be told why I am being asked implement EBP tactics	Similar Q, no SSDs*
5 23.14. I am more likely to use EBP tactics if their purpose has been clearly explained to me	Similar Q, no SSDs*
6 23.17. Access to information is key to their success in the workplace	Not Q, SSDs (rank & HLAA)
7 19.8. My supervisors are more likely to to implement EBP tactics if they are measured by performance figures	Similar Q, no SSDs*
8 19.12. My supervisors are more likely to to implement EBP tactics if it is beneficial to their promotion prospects	Direct Q, no SSDs*
9 18.10. EBP tactics lessen the opportunity for me to use my discretion	Similar Q, no SSDs*
10 19.14. I am wary of EBP tactics which control officer discretion	Similar Q, SSD (rank)
11 23.8. The more discretion I am allowed the more likley I am to implement EBP tactics	Similar Q, no SSDs*
12 23.1. I am more likely to implment tactics if my colleagues are doing so	Similar Q, no SSDs*

Appendix Sixteen:

Non statistically significant data

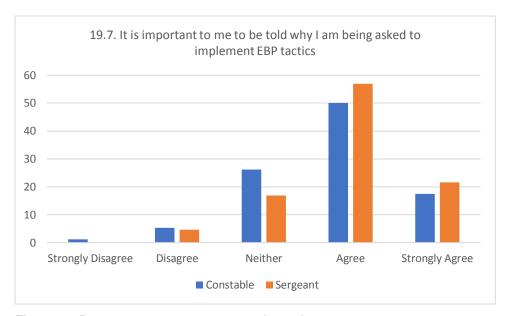


Figure 50. Responses to statement 19.7., by rank

19.7	Constable	Sergeant
Strongly Disagree	1.1	0.0
Disagree	5.3	4.6
Neither	26.1	16.9
Agree	50.0	56.9
Strongly Agree	17.4	21.5

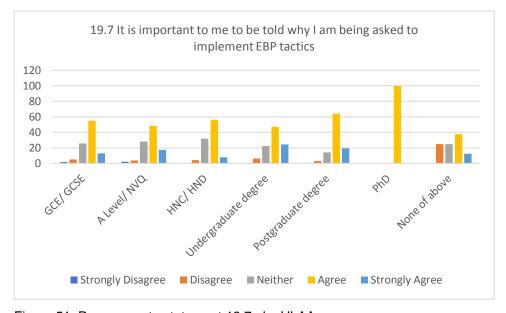


Figure 51. Responses to statement 19.7., by HLAA

19.7	GCSE/ CSE	A Level/ NVQ	HNC/ HND	UG Degree	PG Degree	PhD	None
Strongly Disagree	1.6	1.9	0.0	0.0	0.0	0.0	0.0
Disagree	4.8	3.9	4.0	6.1	2.8	0.0	25.0
Neither	25.8	28.2	32.0	22.5	13.9	0.0	25.0
Agree	54.8	48.5	56.0	46.9	63.9	100.0	37.5
Strongly Agree	12.9	17.5	8.0	24.5	19.4	0.0	12.5

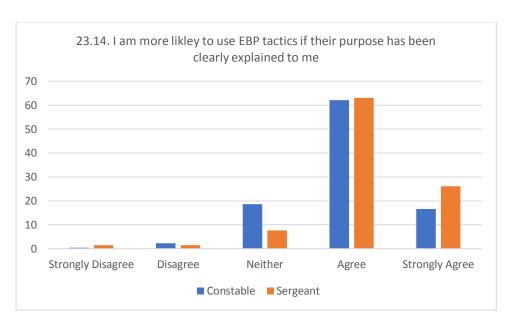


Figure 52. Responses to statement 23.14., by rank

23.14	Constable	Sergeant
Strongly Disagree	0.4	1.5
Disagree	2.3	1.5
Neither	18.6	7.7
Agree	62.1	63.1
Strongly Agree	16.7	26.2

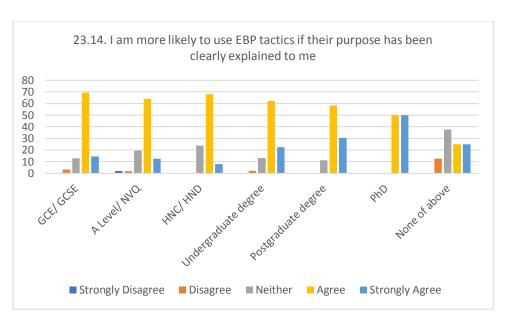


Figure 53. Responses to statement 23.14., by HLAA

23.14	GCE/GCSE	A Level/ NVQ	HNC/ HND	UG Degree	PG Degree	PhD	None
Strongly Disagree	0.0	1.9	0.0	0.0	0.0	0.0	0.0
Disagree	3.2	1.9	0.0	2.0	0.0	0.0	12.5
Neither	12.9	19.4	24.0	13.3	11.1	0.0	37.5
Agree	69.4	64.1	68.0	62.2	58.3	50.0	25.0
Strongly Agree	14.5	12.6	8.0	22.5	30.6	50.0	25.0

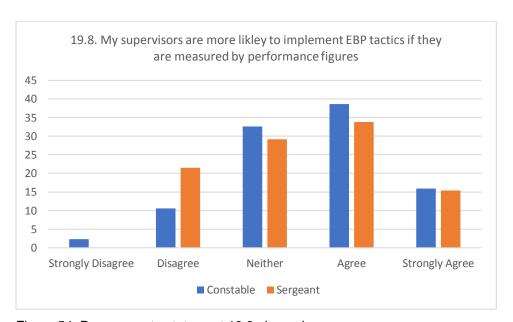


Figure 54. Responses to statement 19.8., by rank

19.8	Constable	Sergeant
Strongly Disagree	2.3	0.0
Disagree	10.6	21.5

Neither		32.6	29.2		
	Agree	38.6	33.8		
Ī	Strongly Agree	15.9	15.4		

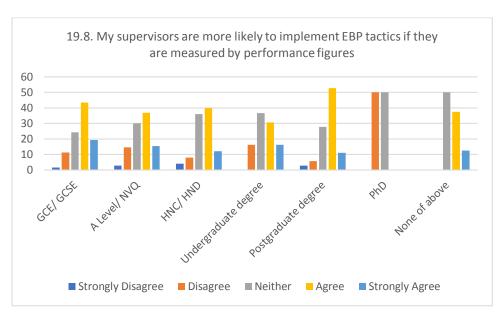


Figure 55. Responses to statement 19.8., by HLAA

19.8	GCE/ GCSE	A Level/ NVQ	HNC/ HND	UG Degree	PG Degree	PhD	None
Strongly Disagree	1.6	2.9	4.0	0.0	2.8	0.0	0.0
Disagree	11.3	14.6	8.0	16.3	5.6	50.0	0.0
Neither	24.2	30.1	36.0	36.7	27.8	50.0	50.0
Agree	43.5	36.9	40.0	30.6	52.8	0.0	37.5
Strongly Agree	19.4	15.5	12.0	16.3	11.1	0.0	12.5

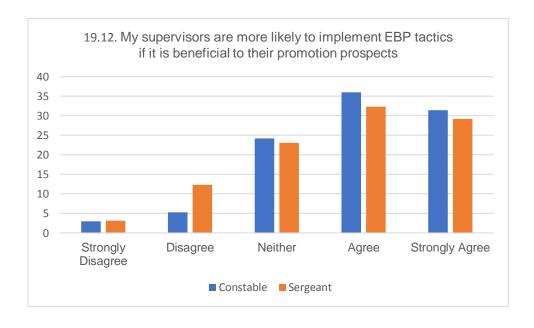


Figure 56. Responses to statement 19.12., by rank

	Constable	Sergeant
Strongly Disagree	3.0	3.1
Disagree	5.3	12.3
Neither	24.2	23.1
Agree	36.0	32.3
Strongly Agree	31.4	29.2

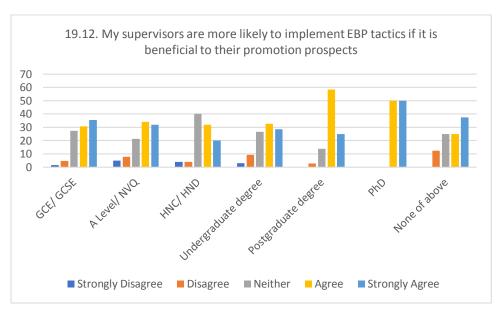


Figure 57. Responses to statement 19.12., by HLAA

19.12	GCE/ GCSE	A Level/ NVQ	HNC/ HND	UG Degree	PG Degree	PhD	None
Strongly Disagree	1.6	4.9	4.0	3.1	0.0	0.0	0.0
Disagree	4.8	7.8	4.0	9.2	2.8	0.0	12.5
Neither	27.4	21.4	40.0	26.5	13.9	0.0	25.0
Agree	30.6	34.0	32.0	32.7	58.3	50.0	25.0
Strongly Agree	35.5	32.0	20.0	28.6	25.0	50.0	37.5

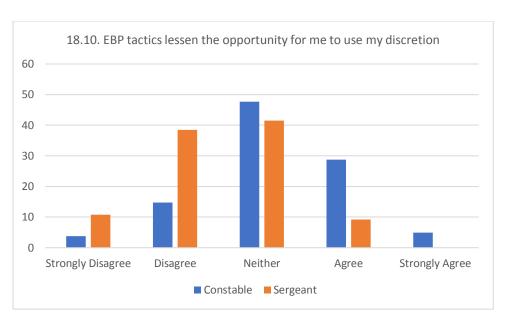


Figure 58. Responses to statement 18.10., by rank

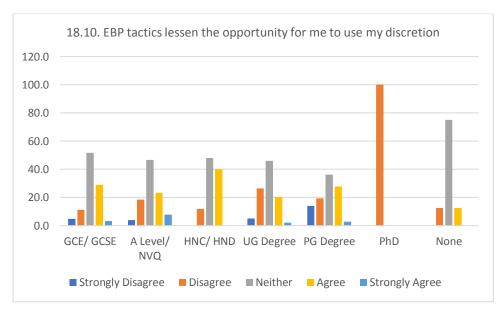


Figure 59. Responses to statement 18.10., by HLAA

18.10	GCSE/CSE	A Level/ NVQ	HNC/ HND	UG Degree	PG Degree	PhD	None
Strongly Disagree	4.8	3.9	0.0	5.1	13.9	0.0	0.0
Disagree	11.3	18.5	12.0	26.5	19.4	100.0	12.5
Neither	51.6	46.6	48.0	45.9	36.1	0.0	75.0
Agree	29.0	23.3	40.0	20.4	27.8	0.0	12.5
Strongly Agree	3.2	7.8	0.0	2.0	2.8	0.0	0.0

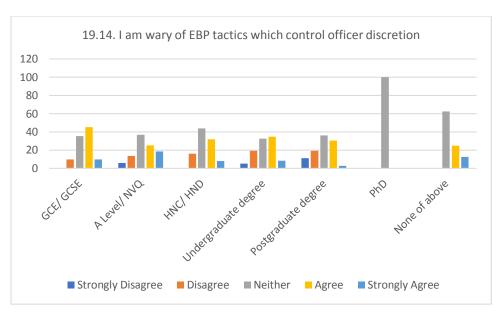


Figure 60. Responses to statement 19.14., by HLAA

19.14	GCS/CSE	A Level/ NVQ	HNC/ HND	UG Degree	PG Degree	PhD	None
Strongly Disagree	0.0	5.8	0.0	5.1	11.1	0.0	0.0
Disagree	9.7	13.6	16.0	19.4	19.4	0.0	0.0
Neither	35.5	36.9	44.0	32.7	36.1	100.0	62.5
Agree	45.2	25.2	32.0	34.7	30.6	0.0	25.0
Strongly Agree	9.7	18.4	8.0	8.2	2.8	0.0	12.5

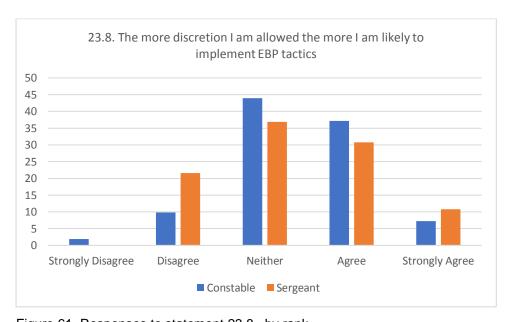


Figure 61. Responses to statement 23.8., by rank

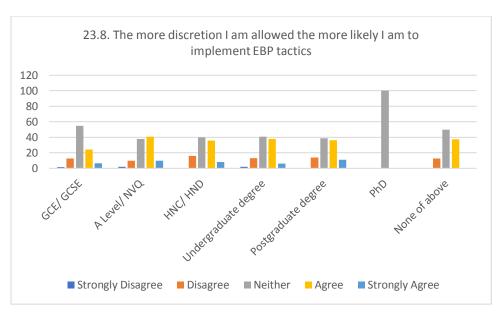


Figure 62. Responses to statement 23.8., by HLAA

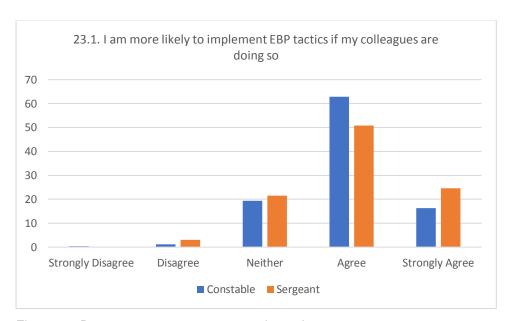


Figure 63. Responses to statement 23.1., by rank

23.1	Constable	Sergeant
Strongly Disagree	0.4	0.0
Disagree	1.1	3.1
Neither	19.3	21.5
Agree	62.9	50.8
Strongly Agree	16.3	24.6

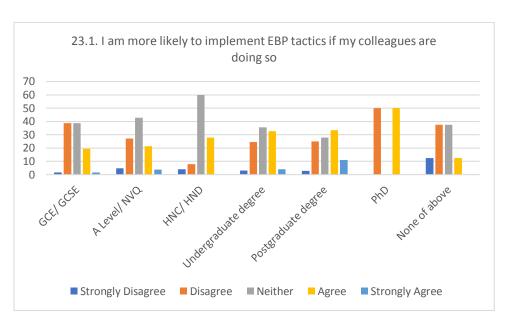


Figure 64: Responses to statement 23.1., by HLAA

23.1	GCE/ GCSE	A Level/ NVQ	HNC/ HND	UG Degree	PG Degree	PhD	None
Strongly Disagree	1.6	4.9	4.0	3.1	2.8	0.0	12.5
Disagree	38.7	27.2	8.0	24.5	25.0	50.0	37.5
Neither	38.7	42.7	60.0	35.7	27.8	0.0	37.5
Agree	19.4	21.4	28.0	32.7	33.3	50.0	12.5
Strongly Agree	1.6	3.9	0.0	4.1	11.1	0.0	0.0

Appendix Seventeen:

Sergeant factor arrays: scores for each item by factor

Factor Arrays No. Statement Item F2 F3 Police work is a craft not a science 2 1 1 -3 Operational experience is more valuable to officers than RBTs 2 5 0 3 RBTs should support existing police practices not replace them 3 -1 0 4 I am suspicious of research being carried out by police staff within my force -4 -2 -2 5 Police academic research is of value to me in my day-to-day role -2 2 1 RBTs lessen the opportunity for officers to use their discretion 6 -1 -2 7 RBTs are more likely to be used if they are measured by individual performance figures -1 -4 -2 8 It is important for officers to be told why they are being asked to use RBTs 4 2 2 Supervisors are more likely to implement RBTs if they are measured by performance 9 0 0 -1 Supervisors are more likely to implement RBTs if to do so is beneficial to their 10 promotion 2 2 -1 11 I am wary of RBTs which control officer discretion -3 3 -1 12 Officers are more likely to use RBTs if their colleagues are doing so 4 1 1 Police culture acts as a barrier to implementing RBTs on the frontline 13 -3 5 Policing incidents are complex and cannot be resolved using research-based methods -4 14 -2 0 I am suspicious of research being carried out by external academics within my 15 -3 -4 -4 16 The more discretion RBTs allow the more likely they are to be used by officers 0 3 0 I am not suspicious of research being carried out by police officers within my 17 3 -1 18 Officers are too busy within their daily role to carry out research themselves 1 5 0 19 Officers are more likely to use RBTs if their purpose has been clearly explained 4 3 20 RBTs cannot be fully integrated in a policing environment -2 -2 -2 21 Officers are more likely to use RBTs if they are genuinely supported by their supervisor 3 4 22 0 3 It is appropriate that officers should be expected to use RBTs in their role -3 23 Police officers whatever their rank should not be carrying out research in their role -4 -4 -1 24 Police academic research is best carried out by external researchers -2 0 2 25 I am open to using new police tactics which come from academic research 2 3 3 26 RBTs are helpful to me in my role 0 0 2 There is a real need for academic research which supports frontline officers in what 27 -1 -2 28 Generally speaking, frontline police tactics are outdated -5 -3 1 29 Police academic research should drive all frontline practices -5 -4 2 Officers are more likely to use RBTs if they are accepted by their team 30 1 1 0 Police officers told by a senior officer to use research-based tactic should do so without 31 -1 -5 -5 Officers do not need to know if they are being used to carry out research within their 32 organisation -1 -3 The tactics officers are told to use do not appear to have any research-based evidence 33 to support their use -4 -1 3 Academic police research should play a greater role in deciding which frontline tactics 4 34 0 -2 35 Officers will use RBTs if they are genuinely supported by their senior managers 0

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36	The decisions officers make in policing situations should not be controlled by RBTs	1	4	-1
37	I value the use of my discretion above all other police officer skills	-2	4	1
38	Research-based practice is the latest policing fad	-1	-3	-2
	Academic research has no real value when it comes to dealing with everyday policing			
39	incidents	-3	3	-3
	Police work is about responding quickly to situations, not waiting for research results to			
40	come to fruition	0	2	-3
	I don't care where the tactics I use originate from, just that they are effective in helping			
41	me in my role	5	5	0
42	Officers do have time within their daily role to take part in research projects	1	-5	0
	Officers do not need to know in depth details of academic research, just that the tactics			
43	help them in their role	0	0	1
44	RBTs have been created to save money	2	0	-1
45	RBTs should be developed to help offenders stop re offending	3	2	5
46	Police academic research has no place in frontline policing	-2	-3	-5
47	RBTs have been developed to help officers in their daily role	2	-1	0
	Areas for future academic research should be identified by frontline officers carrying out			
48	the role	1	0	-1

Appendix Eighteen:

Constable factor arrays: scores for each item by factor

				Factor Array		
	Statement	F1	F2	F3		
1	Police work is a craft not a science	-1	1	5		
2	Operational experience is more valuable to officers than RBTs	2	5	4		
3	RBTs should support existing police practices not replace them	1	3	1		
4	I am suspicious of research being carried out by police staff within my force	-4	0	-5		
5	Police academic research is of value to me in my day-to-day role	0	-3	0		
6	RBTs lessen the opportunity for officers to use their discretion	-1	4	3		
	RBTs are more likely to be used if they are measured by individual performance					
7	figures	0	0	0		
8	It is important for officers to be told why they are being asked to use RBTs	2	1	0		
	Supervisors are more likely to implement RBTs if they are measured by					
9	performance figures	1	3	1		
	Supervisors are more likely to implement RBTs if to do so is beneficial to their					
10	promotion	4	0	1		
11	I am wary of RBTs which control officer discretion	-2	2	4		
12	Officers are more likely to use RBTs if their colleagues are doing so	2	-1	2		
13	Police culture acts as a barrier to implementing RBTs on the frontline	0	0	-2		
	Policing incidents are complex and cannot be resolved using research-based					
14	methods	-1	1	2		
	I am suspicious of research being carried out by external academics within my					
15	organisation	-3	0	-3		
16	The more discretion RBTs allow the more likely they are to be used by officers	1	-1	3		
	I am not suspicious of research being carried out by police officers within my					
17	organisation	2	-2	1		
18	Officers are too busy within their daily role to carry out research themselves	4	4	-1		
19	Officers are more likely to use RBTs if their purpose has been clearly explained	3	1	1		
20	RBTs cannot be fully integrated in a policing environment	-2	2	0		
	Officers are more likely to use RBTs if they are genuinely supported by their					
21	supervisor	2	0	2		
22	It is appropriate that officers should be expected to use RBTs in their role	1	-4	-2		
23	Police officers whatever their rank should not be carrying out research in their role	-3	-2	-4		
24	Police academic research is best carried out by external researchers	-2	-4	-1		
25	I am open to using new police tactics which come from academic research	5	0	3		
26	RBTs are helpful to me in my role	0	0	2		
	There is a real need for academic research which supports frontline officers in what					
27	they do	3	-3	-1		
28	Generally speaking frontline police tactics are outdated	-1	-4	-5		
29	Police academic research should drive all frontline practices	-4	-5	-2		
30	Officers are more likely to use RBTs if they are accepted by their team	3	-3	1		
	Police officers told by a senior officer to use research-based tactic should do so					
31	without question	-5	2	-4		
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	Officers do not need to know if they are being used to carry out research within			
32	their organisation	-2	-1	-3
	The tactics officers are told to use do not appear to have any research-based			
33	evidence to support their use	-3	-3	-1
	Academic police research should play a greater role in deciding which frontline			
34	tactics should be used	0	-2	-1
35	Officers will use RBTs if they are genuinely supported by their senior managers	1	-1	2
36	The decisions officers make in policing situations should not be controlled by RBTs	-1	1	3
37	I value the use of my discretion above all other police officer skills	-1	5	5
38	Research-based practice is the latest policing fad	-2	2	0
	Academic research has no real value when it comes to dealing with everyday policing			
39	incidents	-4	1	-2
	Police work is about responding quickly to situations, not waiting for research results			
40	to come to fruition	0	4	-1
	I don't care where the tactics I use originate from, just that they are effective in			
41	helping me in my role	4	3	4
42	Officers do have time within their daily role to take part in research projects	-3	-5	-2
	Officers do not need to know in depth details of academic research, just that the			
43	tactics help them in their role	0	3	-3
44	RBTs have been created to save money	0	-2	-3
45	RBTs should be developed to help offenders stop re offending	5	2	0
46	Police academic research has no place in frontline policing	-5	-1	-4
47	RBTs have been developed to help officers in their daily role	1	-2	0
	Areas for future academic research should be identified by frontline officers			
48	carrying out the role	3	-1	0