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**AN INVESTIGATION INTO
EXPERIMENTATION AS A MEANS TO
ENCOURAGE A POLICE SERVICE TO WORK
MORE EFFECTIVELY.**

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JUNE 2013

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ABSTRACT

The research to be considered is an investigation into experimentation as a means to encourage a police service to work more effectively.

The research aims in more details are:

- To understand contemporary literature on ‘police learning methods’.
- To understand contemporary literature on ‘delivering effective policing and improvement’.
- To investigate the current approach to experimentation in Cheshire Police.
- To analyse the impact of experiments in developing police practice.
- To draw conclusions around the factors which act as contributors or blockers to successful experiments in policing practice.

This qualitative phenomenological analysis of experimentation seeks to review a sample of case studies within Cheshire Police. Taking the learning from the limited literature around experimentation in policing the research seeks to analyse the impact that learning and recognised success factors and barriers and blockers have on the ability of the organisation to develop operational effectiveness.

The research demonstrates evidence of learning and an understanding of the success factors and blockers and barriers, but draws the conclusion that often there is no evidence of improved operational effectiveness. The evidence shows improved effectiveness in management understanding and at a time of recognised austerity, an ability to effect structure change. However the focus to achieve operational delivery of ‘what works’, Neyroud (2011), still requires greater focus in experimentation within the organisation.

Declaration of Own Work

This work is original and has not been submitted previously for any academic purpose. All secondary sources are acknowledged.

Signed: _____

Date: _____

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1. Chapter One: Introduction

1.1. Background to the Research

The ontology on which such a review is based is that ‘police find themselves operating in difficult times...competing notions of what policing ought to be ... how to deal with law and order issues amid the complexity of contemporary life’, Cox (2011) and Her Majesty’s Inspectorate of Constabulary, describing this period as the ‘biggest financial challenge of a generation’, HMIC (2011).

With this as the background to current policing in the United Kingdom the government commissioned a review of police leadership and training by Neyroud (2011), which set its goal to transform policing, ‘from being a service that acts professionally to becoming a professional service’.

In facing these challenges Cheshire Police has adopted a system thinking methodology, Seddon (2003), to change development and learning within a reducing budget. Part of this methodology has been the adoption of experimenting with concepts and ideas, in order to develop new thinking, introduce new ideas and ultimately learn what is effective and as importantly what does not work, so this can be stopped and reduce waste (cost).

1.2. Research Question

By addressing the research question: ‘an investigation into experimentation as a means to encourage a police service to work more effectively’, the author seeks to learn and gain an understanding of whether experimentation in policing process, is a practical application and method to improve police effectiveness.

The proposal seeks to review experiment case studies of issues relating to frontline policing and in particular the experiences of those who have conducted experiments within Cheshire Police to provide learning and understanding that will provide information as to the whether this method impacts police effectiveness.

The research aims in more details are:

- To understand contemporary literature on ‘police learning methods’.
- To understand contemporary literature on ‘delivering effective policing and improvement’.
- To investigate the current approach to experimentation in Cheshire Police.
- To analyse the impact of experiments in developing police practice.
- To draw conclusions around the factors which act as contributors or blockers to successful experiments in policing practice.

1.3. Justification for the Research

This research seeks to add to and inform a wider national change to the professionalisation of policing, Neyroud (2011), the recent creation of the College of Policing, responsible for the establishing policing as an evidence based profession, with objectives to:

- *Identify evidence of what works in policing and share best practice*
- *Support the education and professional development of police officers and staff*

College of Policing (2013) and inform the changes required within Cheshire Police to continue to deliver an effective service, with a reducing budget.

In addition the link with practical police delivery and academic study, is one that is recognised by Patterson, (2011) as in the relative early stages, with Lundin and Nulden, (2007) identifying a gap in the study of ‘*everyday mundane police work*’ as opposed to major crime. Both justify the requirement for academic assessment of how ‘*everyday*’ policing is assessed in the work environment and whether it delivers practical improvements to effectiveness.

1.4. Methodology

This research design is a descriptive and interpretivist approach to a qualitative case study of experiments in Cheshire Police. Such an approach and philosophy has been chosen based around a number of factors. The philosophy for a qualitative research is the recognition that this is an explorative investigation of experiments as a means to learn and improve effectiveness in Cheshire Police. Taking a descriptive approach this is recognised by Hulley et al. (2001), in their medical assessment of descriptive research, as a 'toe in the water' and a pre-cursor to more quantitative research, which would translate to the study of experiments in Cheshire Police as they are a new concept in policing and not widely adopted as a method of learning.

The reason for choosing an interpretive ontological methodology is based on the phenomenology studies by Husserl (1970), where the emphasis is on the study of phenomena which are described, rather than explained based on pre-existing theories. Such research is recognised by Lester (1999) as 'particularly effective at bringing to the fore the experiences and perceptions of individuals from their own perspectives'.

The research strategy will look to identify a sample of experiments which have taken place within Cheshire Police over the past two years; the selection of those experiments will be determined in part by the accessibility of those involved and the information/data which can provide information for the research.

Having identified a sample of experiments the strategy is to gain information from those who actively participated in the development of the experiment, by means of a semi structured interview. It is felt that such a method will retain some degree of focus on areas identified through the academic research, whilst allowing scope for wider observations.

The information provided in the interviews will provide the data for the qualitative analysis, being semi structured a number of areas have been identified through the literature review, however there is the option to identify additional factors, which may require additional review of academic literature to review any theory or hypothesis proposed.

1.5. Outline of the MBA Dissertation Chapters

Literature Review

This chapter seeks to provide a theoretical understanding of the chosen research topic area, which builds a foundation upon the literature reviewed, thereby identifying research issues. From this understanding a conceptual framework is proposed for a theory of experimentation to deliver policing more effectively.

Methodology

This chapter considers the methodology of the descriptive and interpretivist approach to a qualitative case study of experiments being researched and discusses in detail the justification for methods chosen to answer the research question and the limitations of the method adopted.

Findings

This chapter presents the analysis of the data collected and seeks to relate the relevance to the research question and aims.

Conclusions and Implications

This chapter considers the findings for each of the research aims and attempts to present the conclusions.

Recommendations

Within the final chapter, it seeks to provide recommendations for consideration based on the conclusions found in the previous chapter.

1.6. Definitions

Frontline Policing

What may appear to be an obvious description of an activity, has taken on political connotations in a period where politicians seek to impress on the public that cuts to policing do not necessarily mean cuts to service. In the political arena it therefore needs to be defined, although the common sense understanding for this research will suffice for most readers – namely uniformed and non-uniformed policing, often responding directly to calls from the public and involves the investigation of crime, responding to anti-social behaviour and calls for safeguarding of individuals.

1.7. Summary

This chapter outlines the research problem and why this is particularly relevant at this time in policing and in terms of the wider spending cuts for public services. It outlines the aims of the research, seeking to bring together learning and understanding of practical, as well as theoretical concepts of policing, to develop improved effectiveness, through the use of experiments.

It outlines the qualitative methodology adopted and proposed use of semi structured interviews to gain data from those directing experiments, to be analysed for their impact on the effectiveness of policing.

2. Chapter Two: Literature Review

2.1. Introduction

This chapter aims to build an understanding of the academic and theoretical research that is relevant to the topic area. It seeks to review the literature relevant to component parts of the research, primarily in the policing environment, but also in the wider public sector and where relevant in specialist areas of research pertinent to concepts being explored.

Having identified relevant theoretical understanding it seeks to draw together the findings of the literature to present a conceptual framework of the theory of experiments as a means of encouraging the police service to work more effectively.

2.2. Mapping the Literature

This literature review will aim to identify the key academic literature that informs the debate regarding current police learning through experiment and ultimately whether that translates to a more effective and measurably improved service, identifying predictable success and failure factors.

The initial review of literature was based around searches for research conducted in the police service. This identified a far greater proportion of research conducted in the United States of America and as such much of this was reported in international police journals. Whilst this had relevance in some cases, in others it demonstrated a difference in approach to policing, that completely nullified the relevance to this research.

There is however a number of United Kingdom based journals in policing, where relevant topics had been presented and many of these led to the wider review of the topic area in the public sector, managerial and professional development journals.

What did become particularly relevant in the literature review was the need to review and draw relevance to statute, government departmental (Home Office) policy, guidance and

review, as well as similar literature from inspection bodies (Her Majesty's Inspectors of Constabulary).

By far the biggest factor in ensuring the relevance of the literature reviewed however was the ontological acceptance that significant changes have occurred since the financial crisis began in 2009. The epistemology therefore in researching the literature was that much of the research carried out prior to the crisis was based in an environment where finance was not such a key driver. The axiology of the review is that since the financial crisis and consequent comprehensive spending reviews, finances are such a key factor in all public service delivery, that to ignore the relevance would be to condemn the research before it had begun.

For these reasons my primary searches for literature were aimed at those since 2009, with those most recent proving to be more relevant to the current financial situation. The initial searches for 'police experiment' highlighted a lack in relevant literature directly related to experimentation in policing. In itself this confirmed the author's view that experimentation is still a relatively untried concept in police learning.

As a consequence the literature review began reviewing literature relating to police learning and education, which identified a number of relevant studies and comments regarding appropriate methods of learning and those that had the best success. From this the link to public sector learning and in particular the health and medical services provided a variety of literature relevant to the use of experimentation as a method to improve effectiveness. Again what this continued to identify was that police academic and theoretical research is not systemic within police learning, yet inductive research within professions such as nursing and doctors is more prevalent, as recognised by Page (2012), citing Maputle and Nolte (2008).

Having reviewed literature relating to learning, to address the research topic required additional study of the impact different types of learning have on the police organisation and ultimately how effective they have been as a method to deliver improved service. Again the breadth of literature specifically related to this topic was limited, particularly with the parameters set around the financial crisis. What did become apparent however was

that there was a separate piece of research completely related to police effectiveness and how is it defined. For this reason rather than explore 'police effectiveness', my literature review concentrated on demonstrating the issues faced in policing, with the aim of seeing through the qualitative research and data gathering how that situation was addressed.

A final observation in regard to the literature review is the growing value of social media assisting research and awareness of contemporary studies. Through these medium researchers, university lecturers and College of Policing staff are constantly directing followers to recent research. Whilst such guidance is useful it does make concluding the literature review more difficult being constantly aware of new research.

2.3. Police Learning

The seminal study by Bradley and Nixon (2009), 'Ending the Dialogue of the Deaf', asked the question why despite a growth in academic research surrounding policing the impact was not what had been promised. The relationship between universities and police departments have not fully developed, the consequence identified by Boba (2003), is that officers are not skilled for analysis and researchers lack the operational understanding of the police environment, thereby preventing strategic interventions.

If we recognise this to be a period of significant change, then one recognised constant in policing has been the cornerstone of Peel's principles, where the police are the community they act to serve. If this is the case, the implication is clear as society changes so must the police and the impact was recognised by Guyot (1979), where he describes police flexibility as an attempt to '*bend the granite*'.

If such intransigence does exist in policing, and there is extensive literature identifying the links between academic research and police behaviour Patterson (2011), Innes (2010), and some dating as far back as the early 1900s Rydberg & Terrill (2010) then it is essential to review what environment needs to exist for learning to occur, with Sherman (1998), advocating '*evidence-based policing*,' arguing that '*police practices should be based on scientific evidence about what works best*'.

With much of the major studies of police learning based on major crime, scant attention has been paid to the learning that takes place in everyday mundane police work Lundin & Nulden (2007). As a consequence police organisations are poor at understanding the difference between training and education. White (2006) describes police organisations that design educational experiences that are more about 'how' rather than the higher order 'why', something he notes is bound up in notions of liability and control. Drawing on Lawrence Stenhouse's Wind in the Willows analogy, he notes:

Toad learned the syllabus, he could row a boat and drive a car, but he did not learn their value or the social responsibilities implied.

The research would therefore suggest that if police organisations are to become learning systems, where learning lies at the core of the management process Kolb & Kolb (2009), then they need to adopt the experiential learning theory, as '*the process whereby knowledge is created through the transformation of experience*' Kolb (1984), the concepts of which are the learning cycle, learning style, learning space, deep learning and development.

The study of learning from error in the criminal justice system by Doyle (2010) draws on the lessons and history of medicine and the studies by Berwick (1989), which recognised that every failure was a lesson and that ultimately what were often identified as '*user*' error were often '*system*' failings. Within Cheshire Police such understanding has been developed from a systems thinking methodology which contains aspects of systems thinking, lean thinking and intervention theory observes Jackson, (2009). It is a combination of system ideas, based around the work of Taiichi Ohno's Toyota Production System, Ohno, (1988) and Deming, (1982). Seddon, (2003), claims it to be:

'a method for ... achieving the ideals many managers aspire to : a learning, improving, innovative, adaptive and energised organization. It provides the means to develop a customer-driven adaptive organization'.

Whilst police standards and training have devolved to the newly formed College of Policing, it is recognised that there is little study on how police officers learn, aside from Chan (2003). Those studies of police education identify the emphasis on acquisition and

transfer of knowledge, which White (2006) concludes is '*naïve*' and '*discredited technical rationality models*'.

The studies of Chan (2003) and Heslop and White (2011) identify that policing is a '*craft*' where the social, cultural and emotional aspects are essential to police learning. With this recognition the need to develop methods of learning in the workplace in policing is widely supported by wider academic studies of work based learning, with the epistemological base articulated by Dewey (1938) and Sennett (2008) as one rooted in pragmatism. Further research such as that of Gear et al (1994), Eraut et al (2000, 2005), Felstead et al (2005) and Eraut & Hirsh (2007) all suggest the most effective learning is in the workplace, with Klofas, Hipple, & McGarrell, (2010) stating that practitioner based learning in action learning could restore the trust between the police and academic researchers.

Recognising the axiology of the literature review prior to the onset of austerity, Blundell (2007) and Davis (2007) suggested that UK police groups operated within national strategies that deny experimentation and were less able to innovate than their US counterparts, the Comprehensive Spending Review appears to have changed thinking with the recently abolished National Policing Improvement Agency stating in its review, Campbell and Kodz (2011) the need to find new and better ways to do things.

2.4. Measuring Effectiveness and Improvement

The difficulty has been and remains, in measuring police effectiveness, what is their role? The Home Office are on record more than one occasion in the past twenty years, Home Office (1995) (2010), stating that the main function of the police is to catch criminals and the Peelian principles of preventing crime and disorder. Indeed the current Home Secretary Theresa May has been on record to say that there is '*one clear objective: to cut crime*', Home Office (2011).

Yet the observed reality would question the official stance, previous studies have consistently shown that no more than 25% of calls to police are regarding 'crime', Waddington (1999), Johnston (2000), with this authors own studies Seddon (2012) showing only 9% of calls to Cheshire Police were ultimately recorded as a crime.

This divergence of purpose has been recognised in the studies of Sharp (2005), who argued the primary purpose of the police had never been clearly articulated, with Blair (2010) and Home Office (2008) recognising the police had become the public service of last resort, attributed to by the reduction in agents of social control. Such a view is supported by Villiers (2009) who observes the police accumulating responsibilities which cannot be reconciled with their official purpose.

With this background the method by which effectiveness and improvement are measured, cannot be directly linked to a single objective (despite the Home Secretary's proclamation). Traditionally in the public sector performance measurement has been directly linked to budget and resource allocation, with output targets and performance indicators, Kelman (2006). Yet it is recognised that this does not fulfill the role of service improvement, Kelman & Friedman (2009), Sanger (2008) and Radnor & McGuire (2004) and leads ultimately to Harkin (2011) who recognises the difficulty in measuring police effectiveness.

Amongst many others Fryer et al. (2009) recognised that performance measurement in the public sector had led to deviant behaviour in management manipulation of data around targets. Such behaviour was also identified by Wouters & Wilderom (2008), but they went on to direct that performance measurement should serve to support employees do their work better, through allowing them to have a voice in the formulation of relevant performance procedures.

In the most recent meta-analysis study by Telep and Weisburd (2012), a study analysing effectiveness of police practice to reduce crime, they conclude that there are large gaps in their study. They draw conclusions about particular police practice, but as this study relates to crime only, as was identified previously this represents a study of only part of policing.

2.5. Success factors, Barriers and Blockers

Whilst the study of police experimentation is limited there are studies of policing practice, which whilst focusing on the study of particular practices, do highlight factors which support or hindered the effective delivery of that particular practice.

From reviewing the literature there are a number of consistent themes identified as requirements for success, as well as an absence leading to failure or unrealised potential. These themes are reviewed below from the author's observations, which will later be matched to existing observations and studies, as well as the conceptual model.

A number of studies observing police activity have recognised the necessity for the direct involvement of the staff delivering the activity, with Yang, (2008) finding that stakeholder participation is '*directly and positively related to honest performance reporting*'. In the case study of problem orientated policing in Atlanta, Stone, (1993), observed that the program suffered greatly because the police were not fully committed to problem orientated policing.

The consequence of police officer failure to engage or '*buy-in*' to the proposed concept under consideration is as Johnston, (2000) witnessed the police officers dismiss it as '*rubbish work*', even though there is clear evidence that it is what the public request from the police.

The studies of police learning show that in order to have honest evaluation and learning the culture of the organisation needs to actively seek out information of its own performance, as observed by Mayne, (2008). With such a strong culture Goh, (2012), predicts that the organisation will be more likely to develop innovative new strategies for continuous improvement.

However, Thomas (2007) stated that there were few incentives in the public sector for individuals to learn from mistakes and experiment with new strategies to improve them. Such findings are supported by Rosenbaum, (2010), who quantifies the myriad of pressures on policing which restrict their ability to apply critical scrutiny on their methods, as they are compelled to defend their action in the face of criticism.

A recurring theme of the few studies of police experimentation that have taken place has been the observations that officers engaged on or in the experiments are not able to fully explore and gain the learning, The studies by Stone (1993), Sherman, Buerger and Gartin

(1989) and Weisburd et al (2010), all highlight the need for manageable caseloads and not being tasked with major crime which abstracts them from the study.

Identified in a number of studies was the failure for strategic direction in policing to drive a culture that recognised the importance of learning through experimentation. These studies recognised that the shortage of critical research with evaluation of police policies and procedures – using randomised trials and strong quasi-experiments – has limited the ability to make strong conclusions about the effectiveness of most policing practices, Rosenbaum (2010), something identified in the development of ‘*modern police science*’ in the EU, Jaschke (2010) and during one of the last reviews by the National Police Improvement Agency, NPIA (2011) it noted:

‘Robust experimental evidence in the area of organisational change and business improvement was found to be very limited ... as such it is not possible to make any casual statements about ‘what works’.

As has previously been recognised in this research the relationship between universities and police departments have not fully developed, the consequence identified by Boba (2003), is that officers are not skilled for analysis and researchers lack the operational understanding of the police environment, thereby preventing strategic interventions.

In a similar study of improvement programmes in the public sector Radnor and Walley (2006) identified a series of success factors and barriers (*Table 1*), which, were present in the associated literature.

Table 1.

SUCCESS FACTORS	BARRIERS
Organisational culture and ownership	People
Developing organisational readiness	Lack of ownership
Management commitment and capability	Identity of improvement team members
Do not under resource	Failure of leadership
External support	Compartmentalisation
Communications and engagement	Weak link between improvement programmes and strategy
Strategic approach	Lack of resources
Teamwork	Poor communication
Timing	

Critical success factors and barriers for improvement programmes Radnor and Walley (2006)

In addition to reviewing the study by Radnor and Walley (2006), recognising the limitations of direct related police studies it became clear that the drivers and barriers identified for success in creating a learning environment through experimentation were indicative of the same issues identified for successful companies. In recognising the similarities the author sought to review models of success and recognised the similarities with the McKinsey 7-S Model, first put forward in Peters and Waterman, (1982) and one which is still cited as a structure for successful companies. This model as its name suggests states there are seven attributes for a successful company which all begin with 'S'. It further groups them into 'Hard Elements' – Strategy, Structure and Systems – and 'Soft Elements' – Subordinate Goals, Staff, Skills and Style.

In Table 2, below the author's findings from the literature review, those of Radnor and Walley (2006) and the McKinsey 7-S Model, Peters and Waterman (1982) are pulled together to group and show the similarity between the studies.

Table 2.

McKINSEY 7-S MODEL	HARD / SOFT	AUTHOR'S REVIEW	SUCCESS FACTORS	BARRIERS
Strategy	Hard	Strategic Support and Direction	- Strategic approach - Timing	Lack of ownership
Structure	Hard	Capacity	Do not under resource	- Identity of improvement team members - Compartmentalisation - Lack of resources
System	Hard		Developing organisational readiness	Weak link between improvement programmes and strategy
Subordinate Goals	Soft	Culture	Organisational culture and ownership	
Staff	Soft	Staff Involvement	Teamwork	People
Skills	Soft	Skills	- Management commitment and capability - External support	Failure of leadership
Style	Soft		Communications and engagement	Poor communication

2.6. Conceptual Model

To take forward this research it is necessary to bring together the concepts researched through the literature review and use an appropriate conceptual model to influence the research and data gathering. In order to select an appropriate model it is necessary to outline the concepts that need to be modelled.

The research seeks to understand the impact of experiments which have taken place in Cheshire Police; therefore this is not research about the factors which encourage experiments to take place. It is research from the point at which the experiment has been carried out and seeks to understand whether it does impact police effectiveness and what factors influence this.

From the review carried out there are three concepts which are subject to the research, the first is Police Learning, which for this research will look to what extent does the ability and desire to learn about police practice influence the outcomes of the experiment. The second concept is Success Factors and Barriers and Blockers, which for this research will look to use McKinsey's 7-S Model headings, particularly the grouping around hard and soft elements. The final concept is that of effectiveness, which from the lack of consensus in the literature will be based around the evidence presented by those subject to the research and for them to justify effective.

Having established the concepts it is important to create an appropriate conceptual model for the research to provide meaningful learning. The initial consideration was for complicated models drawing connections between police learning, all 7 of McKinsey's 'S's' and effectiveness, seeking to demonstrate flow and cause and effect. The decision however was taken to use the simplicity of a two-by-two matrix as per *Table 3*, which demonstrates the epistemological view of this research that police learning and the presence or absence of McKinsey's 7-S's will have a direct bearing on the effectiveness of police experiments.

Table 3.

Success factors/Barriers and Blockers

		Low	McKinsey 7 S Model	High
Learning	High	Evidence of learning but no evidence of improved effectiveness	Improved effectiveness, evidence base	police with
	Low	No improvements to police effectiveness and no learning	Improve effectiveness but no understanding of how to replicate	

2.7. Summary

This chapter gives an axiological perspective of the range of literature that has been reviewed in relation to relevance to policing in the United Kingdom and post financial crisis in the public sector. It identifies three concepts – police learning, success factors / barriers to experimentation and measuring effectiveness.

By drawing these concepts together it presents a hypothesis of how these concepts are related and ultimately how they will influence each other, this in turn will influence the structure and design of the methodology for the research.

3. Chapter Three: Methodology

3.1. Introduction

This chapter outlines the consideration made in relation to selecting the methodology for this research. It seeks to build on the literature review and meet the requirements of the proposed conceptual model. This reflects to views of Myers, (2009) who states that a research method is a strategy of enquiry, which moves from underlying assumptions to research design and data collection.

3.2. Research philosophy and principles

The philosophy for this research is the recognition that this is an investigation of experiments that occur in Cheshire Police and the impact they have on police effectiveness. The philosophy chosen has to recognise that the use of experiments in policing is a relatively new method of learning and creating an evidence base to develop practice. It has to recognise that policing as a subject of research is a social environment involving the whole range of human complexity from the individuals within the organisation and their relationships to the individuals who are served by policing.

The decision is therefore to carry out qualitative research, which according to Domergan and Fleming (2007) '*...aims to explore and to discover issues about the problem on hand because very little is known about the problem. It uses 'soft' data and gets 'rich'*'. This will take a descriptive approach which is recognised by Hulley et al. (2001), in their medical assessment of descriptive research, as a '*toe in the water*' and a pre-cursor to more quantitative research, which would translate to the study of experiments in Cheshire Police as they are a new concept.

Within this approach it will take an interpretive phenomenological analysis approach, as described by Smith (1996). As an interpretive approach this will access the meanings attributed by those contributing to the research Orlikowski and Baroudi (1991), however recognising the inevitable bias that all humans bring to a situation, the wider

phenomenological approach will allow for not only presentation of the data, but also the interpretation by the author of that data.

3.3. Research Strategy

3.3.1. Justification for the Methodology

The justification for choosing a qualitative descriptive method recognises the fact that this research looks at a new method of learning in Cheshire Police, accepting that the principles of that learning have not yet been set and therefore whilst a study of literature and a conceptual model has been put forward, it is likely that it will require an interpretation of events or phenomena in terms of how those contributing put them forward, as put forward by Denzin and Lincoln (2003), who put more simply state that human learning is best carried out through qualitative research, and supported by Domergan and Fleming (2007).

In choosing the interpretive ontological methodology, the author seeks justification from that described by Smith (1996), as well as the phenomenology studies by Husserl (1970), where the emphasis is on the study of phenomena which are described, rather than explained based on pre-existing theories. Such research is recognised by Lester (1999) as *'particularly effective at bringing to the fore the experiences and perceptions of individuals from their own perspectives'*.

Through the interpretive phenomenological approach the author is accepting that he will be reliant on the quality of data provided by the contributors, but draws comfort from Walsham (1993) who argued that in the interpretive tradition there are no correct or incorrect theories. He even goes as far to say they should be judged on the interest they give to the researcher, which given the views of Deetz (1996), the interpretive approach allows the researcher to ask questions such as 'why' and 'how', then this approach is justified by the authors professional interest in the experiments and his position within the organisation.

Through the inclusion of the interpretive phenomenological analysis approach, in allowing for final interpretation of the findings by the author, the justification for such a methodology is based on the literature review undertaken and a need to widen the scope of

learning within policing to allow this research to see whether it can add to the relevance of literature to practical policing and the furtherance of a learning organisation.

In choosing this approach I was drawn to the 'critical interpretive' studies of Walsham (2005) and consider the adoption of a critical realism approach, Mingers (2004). Such an approach would have fully recognised my role as an active participant and undoubtedly manifested my personal views in critiquing the findings. I did however feel that at this initial research stage of a new concept the impact of the research would best stand scrutiny if it is presented without judgement on the outcomes, which does not deny the need for analysis and evaluation.

3.3.2. Limitations of the Methodology

The limitations of the methodology selected were outlined in the study by Lincoln and Guba (1985), who listed what they saw as the disadvantages of qualitative research:

- Researcher bias can bias the design of the study
- Research bias can enter into data collection
- Sources or subjects may not all be equally credible
- Some subjects may be previously influenced and affect the outcome of the study
- Background information may be missing
- Study group not representative of wider population
- Analysis of observations can be biased
- Any group that is studied is altered to some degree by the very presence of the researcher
- It takes time to build trust

A key issue, as listed, and the fundamental difference between qualitative and quantitative research, is the nature of the data gathered. In quantitative research the numbers provide hard evidence based data that links directly to the research, determining scientifically a result. In the case of qualitative, it relies on human intervention and input, which inevitably

carries bias. Whilst the researcher may try to remain subjective, the language, the choice of methodology, all has a bias bearing on the outcome.

In this research the author's individual bias on the research is recognised, as Walsham (1995) highlighted and built upon in Walsham (2005, 2006). As the lead for developmental change in the past the author has to be recognised as the initial instigation of experiments in Cheshire Police, in addition he remains a senior officer in a hierarchical organisation, so this will impact on the research and findings. In disclosing the author recognises the caution shared by Lincoln and Guba (1985) that the researcher's '*biases, motivations, interests or perspective of the inquirer*' are made explicit. It is however recognised by Walsham (2005) that this will give both advantages and dis-advantages to the research, all of which will have to be considered when drawing conclusions and findings from this research.

The second predominant theme highlighted by Lincoln and Guba (1985), is the lack of consistency and appropriateness of those who contribute to the research, whether individually or as a group. This does present limitations to the qualitative research process as the number selected within a Masters Research project will never be fully representative. However, the nature of the approach taken is that there is learning from the views of all contributors, as it will represent their perspective on phenomena and will remain valid for the purposes of this research.

3.3.3. *Validity, Reliability and Triangulation of the Data*

Having chosen to take a qualitative descriptive approach, based on an interpretive phenomenological analysis, it will not provide the level of data that could be scientifically checked as a quantitative approach would. In order to ensure that it is valid for the purposes of the research the author will need to justify why those contributing to the data are valid. Within the scope of the research this is covered in more detail within. 3.4 Construction of the Methodology.

The reliability of the data provided requires two aspects to be covered, in a technical sense the reliability of data presented as accurate is detailed within 3.4 Construction of the Methodology. The second aspect is an issue of how reliable are the contributors, with the

data they provide. As this is a phenomenological approach such an issue should not be relevant as the views of the contributor, whatever they are provide relevant data, even if of itself it is incorrect. The issue of reliability could be an issue, taking account of the author's personal position in the organisation, and as discussed above this is a factor that needs to be explicit to those contributing and in the conclusions when presenting the data.

In terms of triangulating the data, this will be carried out in the analysis phase of the research and the data from all contributors will be triangulated against each other, but also against the literature review findings. Whilst not anticipated, the approach adopted will allow the author to collect additional data if it is felt it would provide a better interpretation of the existing data.

3.4. Construction of the Methodology

3.4.1. Technique Selection

In order to select the most appropriate technique for gathering data for the research, it needs to reflect the necessity of addressing the requirement of the conceptual model, as well as ensure the research strategy is met, Daymon and Holloway (2010). As a qualitative descriptive piece of research it requires gaining information from individuals who have been sufficiently involved in the experiments in Cheshire Police.

There are a number of techniques widely used to achieve this data direct from individuals, Doyle (2004), including questionnaires, structured interviews, Berg (1998), semi structure interviews, unstructured interviews, Greene (1998). In order to select the appropriate technique there is a basic understanding that in order to gain 'rich' data this requires one to one interviews, DiCicco-Bloom and Crabtree (2006), thereby negating the questionnaire option. As a consequence this will limit the number of contributors owing to the time taken to arrange, undertake and analyse the data, however as a piece of initial research any data gathered is considered relevant.

To achieve the requirements of this research the decision has been made to carry out semi-structured interviews, an option recognised by Kvale and Brinkmann, (2009), as the most

effective and convenient means of gathering information. This technique allows for a series of set questions which are formulated based on the review of the academic literature and directly seek to provide data to test the conceptual model. In doing so it is accepted that this will restrict and guide the interview and will potentially build in bias, depending how those questions are set Gubrium and Holstein, (2002). The advantage of the semi-structured status is that the questions form part of the research to ensure if bias is present then it is visible to the reader.

In keeping with the phenomenological approach the flexibility that exists within the semi structured interview allows for open questions and the option of asking the ‘why’ and ‘how’ questions. This allows for the contributor to fully articulate their understanding of the phenomena and provides an option to provide data which may be outside the conceptual model. This is important as the use of experiments in policing is untested and whilst the literature provides a guide the practical implementation may illicit unidentified issues, which it would be remiss not to include within this research, or comment.

3.4.2. Contributor Selection

In carrying out the technique selected to achieve the research strategy there is a need to understand why those who are interviewed are selected. The previously identified limitations of the qualitative approach is the potential inherent bias, with the possibility that the selection of the interviewees will in itself be biased based on the author’s knowledge of the individuals and their respective experiments. In addition, there is also recognition that in a hierarchical organisation all the contributors will be a lower rank than the author, and such a situation has to recognise the study of Adler and Adler, (2002), that the vulnerability of the interviewees may be exacerbated by fear that the interviewer is assessing them.

The first decision is to identify that the research will seek to gather data from those responsible for organizing the experiments, not necessarily those involved in the experiments. The rationale for this is that in some cases officers and staff were not aware they were in an experiment and also they would not be aware of sufficient data to carry out the research.

To provide some understanding around how this selection process will take place it is worth describing the pool of people who are appropriate to provide data. Within Cheshire Police there have been relatively few, perhaps less than twenty experiments undertaken in the past two years, most of them led by different individuals. The range of experiments is from force led experiments carried out on behalf of the organisation for the chief officers, right through to team leaders, identifying an issue and carrying out experiments in their own spheres of influence.

As the capacity to research will not allow for all the experiments to be assessed consideration has been given to a number of options to reduce bias. If random selection were to be adopted this would undoubtedly remove bias, however it would inevitably create a logistical problem of gaining access to the individual within the time constraints. (In an organisation that works 24 hours, 7 days a week, with variable rest days across multiple locations, with all staff holding operational functions it is worth a piece of research to understand the impact this has on an organisation to deliver change, when interested parties cannot get together).

Therefore, despite the bias reservations, it will be a process of identifying persons who have managed the experiments and checking mutual availability. If it is a bias the intention with such a relatively small number of individuals who will form the study, is to select a cross section of force wide and smaller experiments to gain a wider spectrum of views. Having selected the contributors it is worth observing why they may agree to support the study; Bloom (1996) suggests that the contributors may gain from the experience, whereas Lowes and Gill (2006) suggest that others will do so altruistically to help others. Whilst both observations will have some validity the findings of Berg (2001) state that contributors may find the interview interesting and Hiller and DiLuzio (2004) suggest it may validate their own experiences.

In order to gather data for this research the numbers required to provide sufficient data and be feasible within the timescales and practical within the police environment were considered. The numbers of experiments assessed will remain small – 4 to 6 – and as a consequence the numbers of individuals who can provide direct information will be

manageable, but the quantity of data from each participant will potentially be quite significant.

3.4.3. Question Design for Semi Structured Interview

As this will be an interpretivist approach consideration was given to general questions regarding the experiment and compiling and reviewing all the notes at the end to illicit observations, more in the manner of grounded theory, Glaser and Strauss (1967). Whilst such a method has academic backing, the potential time to manage the large volumes of notes and information would preclude this as an option. It would also fail to recognise the pre-existing knowledge and world view of the author, therefore whilst one to ones will be arranged, the interviews will be semi structured around set questions based on the literature review, with the option for further expansion at the end of the interview.

In selecting the questions a number of parameters have to be followed, first and foremost the number of questions, this is not about selecting a number but being cognisant of the fact that this will dictate the length of the interview, the volume of data to be analysed and as importantly the amount of time the participant can give to the interview.

In selecting the questions themselves they were chosen in an attempt to avoid bias, but at the same time they do seek some responses in relation to the review of literature to challenge and test the conceptual model. Therefore the questions themselves need to be supported by theoretical research to remain valid.

In selecting the question type reference was made to the conceptual model, so the concepts – police learning, success factors and barriers and blockers and finally effectiveness – form the basis of the questions for the semi structured interviews, which are listed below.

1. *Please describe your experiment and why did you undertake it?*

This question seeks to give an opening to the interview and is looking for the interviewee to give their interpretation of the purpose of the experiment and the factors which caused it to be undertaken, recognising the observations of Klofas, Hipple, & McGarrell, (2010) that learning in the operational police environment can increase trust between police and academic research. To avoid bias there is no reference to learning expectations at this stage.

2. *What did you learn from carrying out the experiment?*

This question directly addresses the concept of police learning proposed in the conceptual model. It draws on the studies by Seddon and Cairns (2002), Lundin and Nulden (2007) and Neyroud (2011) regarding police learning needing to be practitioner focused. The question is deliberately open to allow for reference to personal learning in carrying out the experiment, as well as the direct learning from the experiment.

3. *How did you learn from carrying out this experiment?*

This question seeks to illicit information regarding evidence based learning, without giving bias as to what they would be expected to have done. This question relates to the observations of Sherman (1998), regarding evidence based learning and defining ‘*what works*’.

4. *Why did the experiment achieve the outcomes that it achieved?*

By asking the question ‘why’, as opposed to ‘what’ it is seeking the interviewee to consider the factors which caused it to deliver and draw conclusions from them, rather than just provide a list. This picks up on the success factors observed by Radnor (2006) and Peters and Waterman (1982), as well as Thomas (2007) observations regarding there being few incentives to learn.

5. *How could the experiment have been improved?*

In this question to have asked 'why' the experiment was not as successful it could have been, would have had potential to imply and bias that the experiment was not successful. In addition this could place the interviewee in a defensive position, justifying the experiment. If the question had been 'what', then there is a risk that a list could be given, without elaboration. Using 'how' attempts to make no judgement positive or negative in relation to the experiment and allows the interviewee to elaborate, without being defensive. This again builds on Radnor and Walley (2006) and Peters and Waterman (1982).

6. *What has been the consequence of carrying out this experiment?*

This question seeks to avoid bias in relation to where the impact of the experiment may have occurred e.g. within the team carrying out the experiment, the community, the organisation. At the same time it seeks to avoid bias in relation to positive or negative consequences and leaves that to the interviewee to make reference to. This seeks to draw on the findings of Kelman and Friedman (2009) and Sanger (2008) who state that learning should be about improved service.

7. *How has the experiment impacted on the effectiveness of policing?*

As the final question it is more directed and seeks the interviewee to provide information on police effectiveness. By asking the 'how' question it looks to draw the interviewee to think about what is police effectiveness and how have they sought to measure this, something Harkin (2011) recognised as being difficult. There is likely to be bias in this question as the interviewee is likely to look at positive impact, something is down to the culture of policing to be defensive.

8. *Have you any other observations that you wish to make as a consequence of conducting an experiment?*

This final question allows for any issues the interviewee wishes to mention but feels the previous questions have not facilitated.

3.4.4. Interview Procedures

All the interviews will be digitally recorded with the consent of the interviewees. Permission will be sought for all the interviews to be conducted on Cheshire Police premises and in the duty time of the officers. It is felt that to try to complete this outside of duty time would be logistically difficult and a number of participants would be unable to commit that time.

3.4.5. Data Analysis

The primary data source for this research will be the transcripts of the semi structured interviews. As it is semi structured and the questions designed against the conceptual model – Question 2 and 3 police learning, Question 4 and 5 success factors and barriers and blockers and Question 6 and 7 effectiveness – the initial analysis will look to review and compare the responses from the interviewees against each concept.

In addition the fact that this will be a semi structured interview anticipates that there will be additional data which sits outside the conceptual model. This will be reviewed for patterns, however the small number of interviews may mean that even one key theme from one interviewee may be analysed and provoke the necessity for further research.

The analysis will look to test the conceptual model; it will also review the data from the interviewees in relation to areas where the literature had gaps, such as measuring police effectiveness and the level of police learning. In relation to the concept of success factors and barriers and blockers these will be compared to McKinsey's 7-S's to see if there are similarities and if possible from the data assess the impact of each of the 'S's'.

3.5. Ethical Considerations

Following the research by Diener and Crandall (1978) which identifies four main ethical areas for concern: harm to participants, lack of informed consent, invasion of privacy and deception, consideration is given to each of these areas.

In relation to the participants, it is a consideration that in a hierarchical organisation as policing the participants may feel that they had no option but to engage with the author's research owing to his rank. This is considered by the author and endeavours will be made to assure the participants that their engagement is voluntary. In addition the identities of the participants will be anonymous in the research and the data requirements are such that they are unlikely to be highlighted in a manner that will identify the originator, however if particular concerns are raised these will be reviewed.

In relation to consent, this has been formally obtained to cover the research, the participants, and the use of police knowledge, time and premises to undertake the research.

In relation to privacy this research, whilst looking at police practice will not be privy to individual cases relating to members of the public or the privacy of any other individual. There is a potential issue of naming the organisation subject to the research. Whilst the research will hold integrity, there is no guarantee that the findings will be positive. As this is an exercise in research and learning the decision as to make the company anonymous will be made when the findings are known, which is unlikely to impact on the research or its credibility.

As regards to deception the author has declared that this is original research and will ensure throughout that the integrity is maintained.

3.6. Summary

This chapter introduces the chosen methodology philosophy as a qualitative descriptive, using interpretive phenomenological analysis to gain understanding from the contributor's perspective, whilst allowing interpretation from the author. This approach supports the conceptual model presented in Chapter Two and the use of semi structured interviews will be used to provide the data for analysis.

4. Chapter Four: Findings and Analysis of the Data

4.1. Introduction

This chapter presents the findings from the semi-structured interviews that were conducted as part of this research methodology outlined in Chapter Three. The results seek to relate the relevance of the data obtained to the research questions and aims, whilst providing the data for the conclusions in Chapter Five.

Through an assessment of the responses to questions outlined in Chapter Three, a qualitative review has been carried out, coding the responses against the concepts of police learning, barriers and success factors to change and finally measures of police effectiveness.

4.2. Contributor Selection

As had been identified in the previous chapter, the selection of the contributors was as much a logistical process as ensuring a cross section of individuals. In total six contributors were interviewed, all were serving police officers of a junior rank to the author and all had at sometime come under the command of the author, with two having been under the direct supervision in the past. Of those other potential contributors who were not interviewed, this was due to logistics and no person declined to participate in the exercise.

Whilst there are many factors that could be analysed about the contributors, those factors that are drawn upon in this chapter include the rank of the officers at the time of conducting the experiment and the department they were attached to whilst carrying out the experiment.

It had been anticipated that the contributors would be managers in the organisation, as only those who were directing the experiments would be selected and the author was not aware of experiments conducted by non-managers. Of the six interviewed two were sergeants, which are the first line of supervision in policing and the remaining four were the next line

managers –Inspectors. To place this in perspective there are eight tiers of management in policing, the contributors were on the first two tiers and the author is on the fourth tier.

Whilst all the contributors had operational policing experience within twelve months prior to the case study experiments, at the time of carrying out the experiments four of the contributors were seconded to non-operational project teams, with responsibility for organisational development and change. The remaining two officers were both operational Inspectors, carrying out the experiment alongside their usual duties.

4.3. Case Study Experiments

Whilst there is no necessity for a full précis of each case study experiment, there are, as with the contributor observations some facts which have a bearing on the final conclusions.

Of the six case study experiments two were solely related to experimentation of process and procedure, one was related solely to operational policing and the remaining three had elements of both.

All the case study experiments were carried out in the workplace, based on and around the actual police activity at that time, as opposed to in a controlled environment with hypothetical scenarios. They ranged from the recording of police data, the pattern of police patrolling through to the total response of policing across a whole local authority area.

4.4. Findings from Semi Structured Interviews

In line with the proposed methodology each contributor was interviewed by the author, using the eight questions as the framework. Where there was a need for clarification or elaboration supplemental questions were asked during the interview. Each interview was audibly recorded and these were later used by the author to create transcripts, which were used as the basis for the qualitative analysis.

Taking the learning from the literature review the interview transcripts and recordings were used to code and abstract data in line with the proposed conceptual model. Whilst the

questions were selected in line with the three themes: police learning; success factors and barriers and blockers and; police effectiveness, the style of the questions were deliberately open. Whilst the primary purpose of this had been to avoid bias, an unexpected consequence was the freedom it gave the contributor to respond in a broad way, or as was exhibited a relatively narrow way. This directly leant itself to the method of coding adopted by pulling out references to the three themes, as well as McKinsey's 7S's across all the responses.

Having abstracted the base data, this has been analysed in relation to the role of the contributor at the time of the experiment and the nature of the experiment undertaken. The intention is to analyse the data in response to the research aims and allow for further critical analysis and observation in the concluding chapter. As a qualitative piece of research the analysis consists of descriptive observations, relating to the individual contributors and the manner in which they presented their information. This includes observations on what they concentrated upon in responding, alongside patterns in the words and phrases that all contributors used. Where analysis of patterns has been feasible this is presented in numerical format to provide greater opportunity for interpretivist analysis.

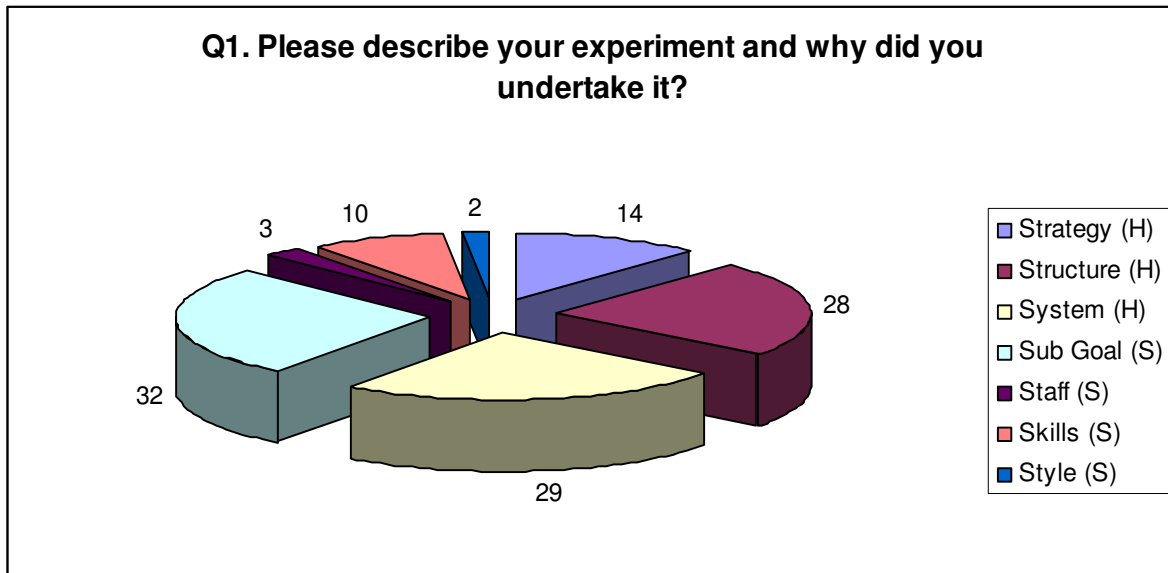
4.4.1. Analysis and findings from individual questions

Whilst each contributor was asked each question during the interview and the responses from all contributors were coded and analysed the individual analysis from each question do not in isolation add to the research. The decision however to code the question responses using two methods – three themes and McKinsey's Model – did illicit findings, which were on some occasions valid to assess in isolation and ultimately add directly to addressing the research aims and the conclusions in Chapter Five.

Question 1 was the opening of the interview, designed to provide an understanding of the experiment and whilst the focus for the research was not around why experiments had taken place it did provide an opportunity for some contributors to speak widely about the experiment and cover many of the aspects subject to this research.

Figure 1 represents an analysis of the contributor's responses to the first question as coded using McKinsey's Model and reflects the fact that all 7 S's were referred to in the opening responses describing the experiments.

Figure 1.



Question 2 was designed to seek information regarding police learning, whilst this directly lends itself to comments on learning; the analysis reviewed the responses against all three themes (Figure 2) and McKinsey's 7S Model (Figure 3).

As would be expected from a question on learning Figure 2 represents the largest number of references were related to learning, however significantly in responding to this question the proportion of the responses indicating barriers and blockers was nearly twice that of comments on success factors, with an overall smaller proportion of responses related directly to police effectiveness.

Figure 2.

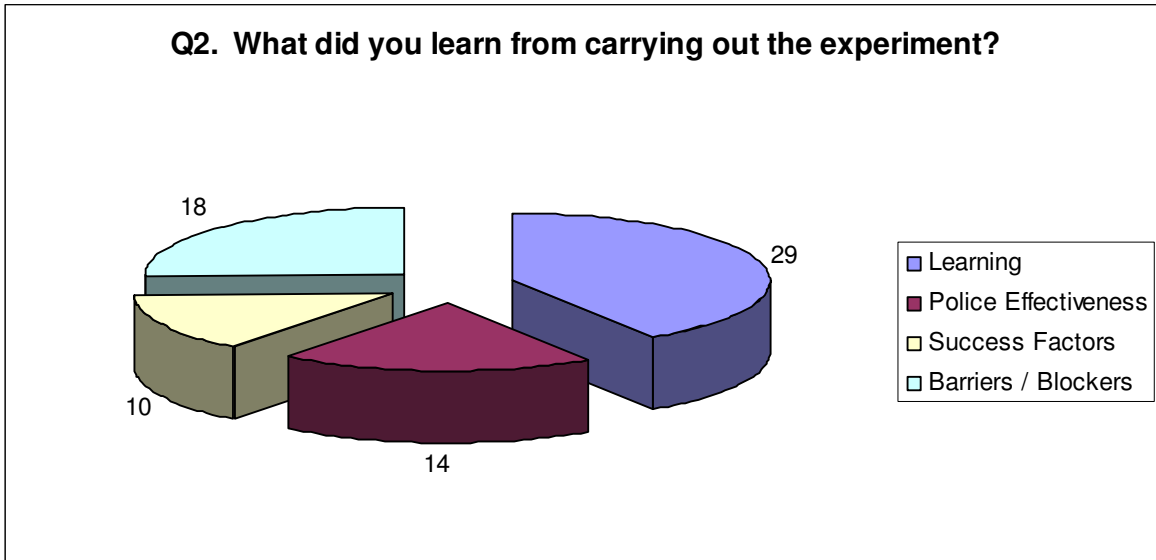
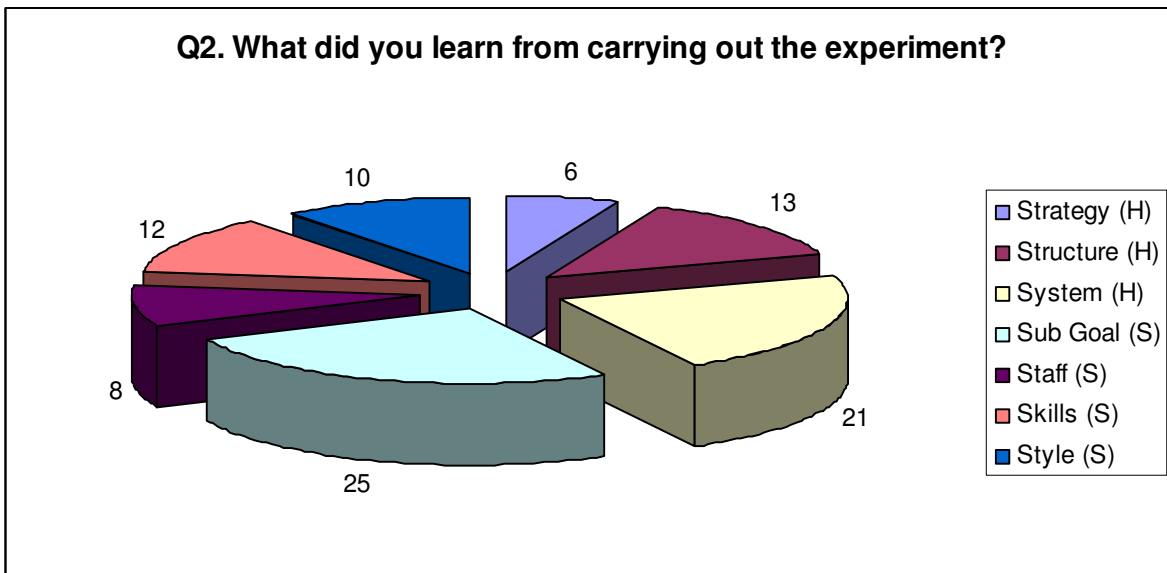


Figure 3 represents the comments to Question 2 assessed against McKinsey's 7S's, the largest theme mentioned is 'Sub-Goal', which refers to comments often around the culture of the organisation.

Figure 3.



Question 4 by asking the question ‘why’ the outcomes were achieved, sought the contributors to understand the influences that caused the outcome. *Figure 4* and *Figure 5* represent the analysis of the data.

Figure 4.

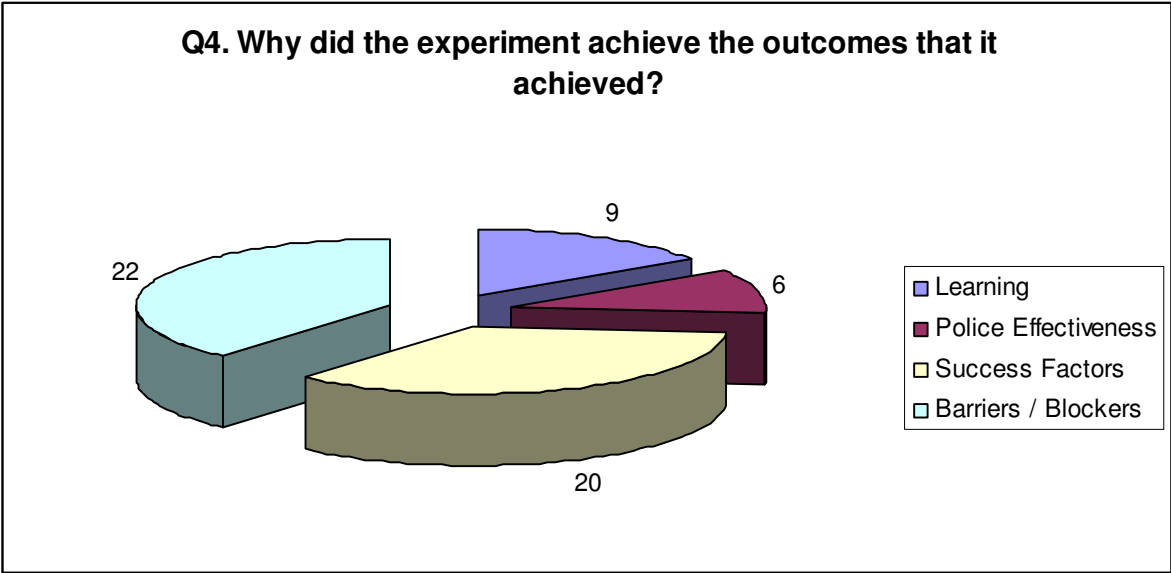
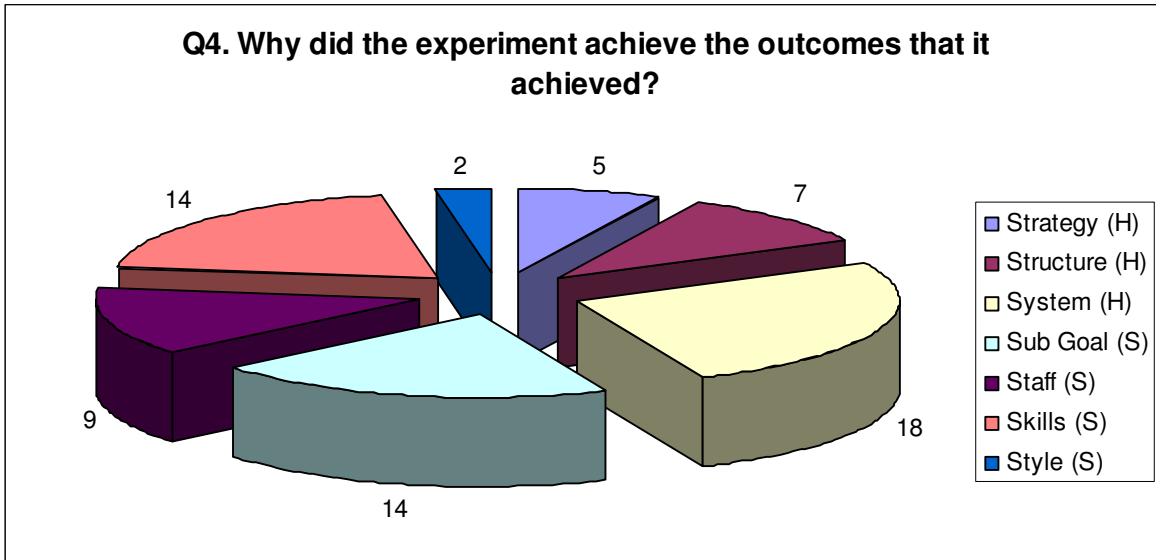


Figure 4 demonstrates the breakdown of responses against the three themes and demonstrates the contributors thoughts were predominantly on the success factors and barriers and blockers, as the question was designed, with an even split on success factors and barriers and blockers.

Figure 5 demonstrates that the contributor’s responses covered all of McKinsey’s 7S’s, with comments regarding ‘Style’ being the smallest, which covers comments regarding communication. Such omissions in the responses may be an indication that ‘Style’ was not a consideration and may be an unconscious impacting factor on the outcomes of the experiments and their effectiveness.

Figure 5.



Question 5 whilst designed to illicit responses on success factors and barriers and blockers, did provide an opportunity for responses relating to improved learning and improved police effectiveness.. *Figure 6* and *Figure 7* represent the analysis of the responses.

Figure 6.

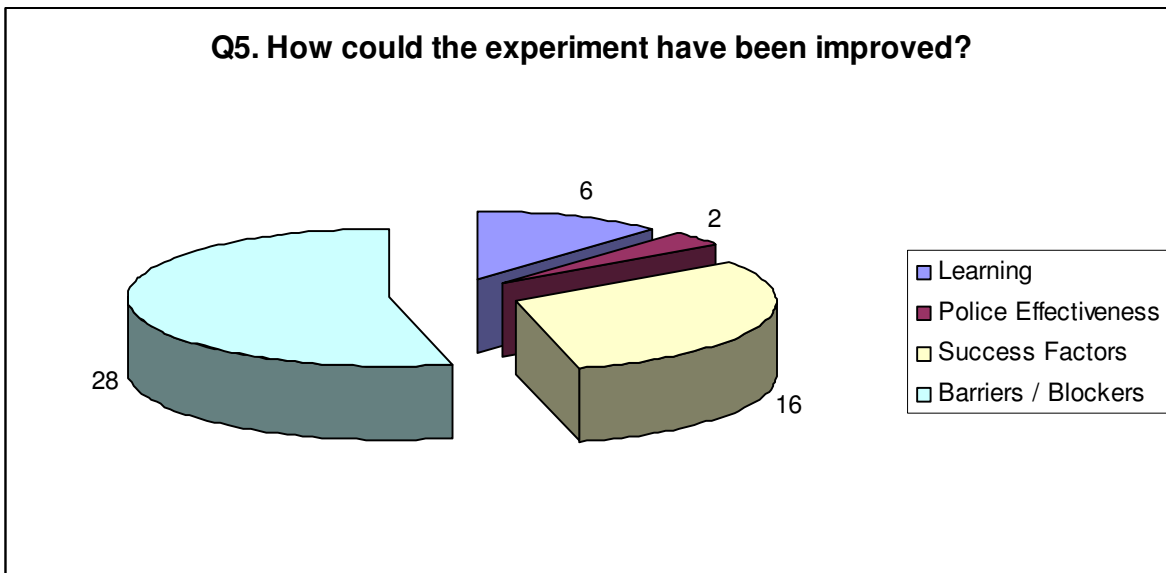


Figure 6 shows more than half the responses from the contributors were in relation to barriers and blockers. An indication that improvement can be achieved more by addressing them, rather than the additional benefits of learning or emphasis on the success factors.

Figure 7.

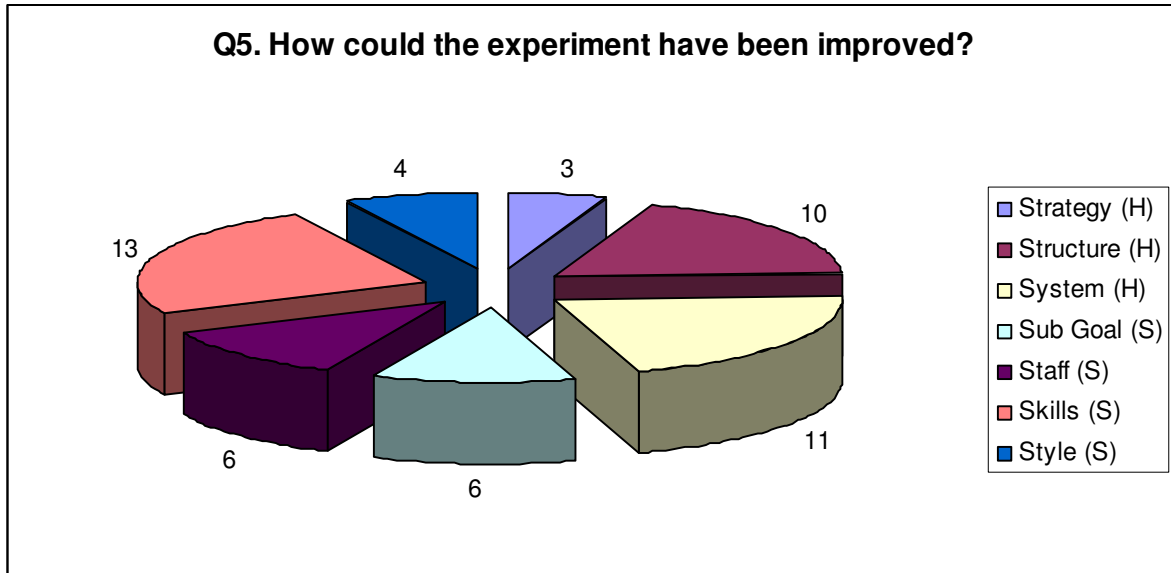


Figure 7 shows a broad representation of McKinsey's 7S's, highlighting that reviewing the responses under different themes can provide a different perspective. The analysis under McKinsey's 7S's implies that contributors recognise a whole, perhaps more systemic, approach is needed to improvement.

Question 6 was designed to illicit responses regarding police effectiveness, with Figure 8 and Figure 9 representing the responses.

Figure 8.

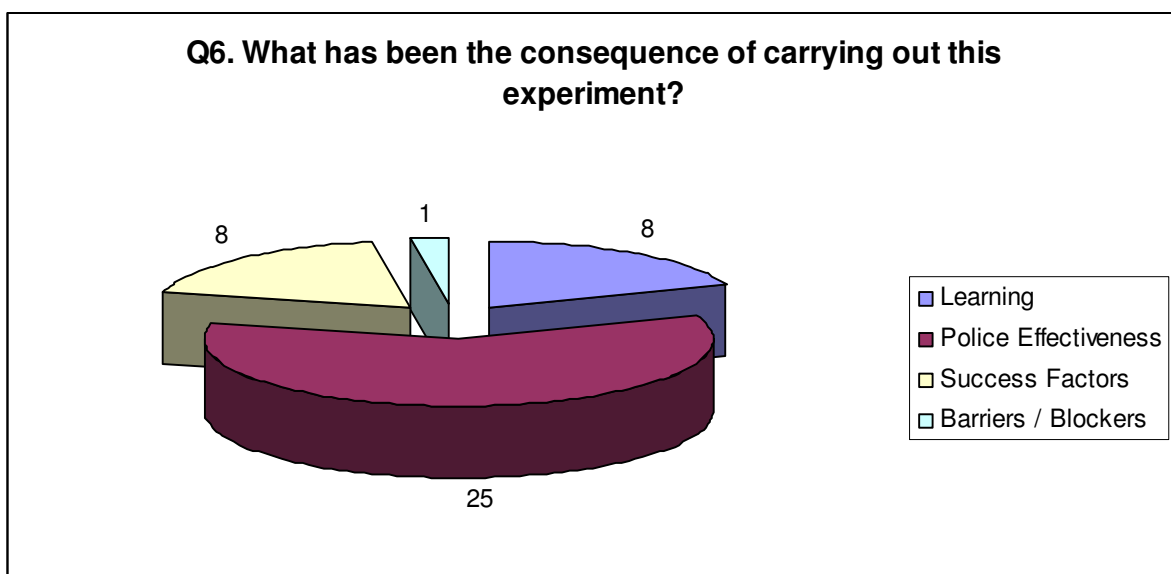


Figure 8 indicates the consequence of the experiments has been around police effectiveness, however on its own this analysis does not indicate whether that is positive or negative. It also indicates that some of the consequences of the experiment have been around learning, but this remains a relatively small proportion of the consequences.

Figure 9.

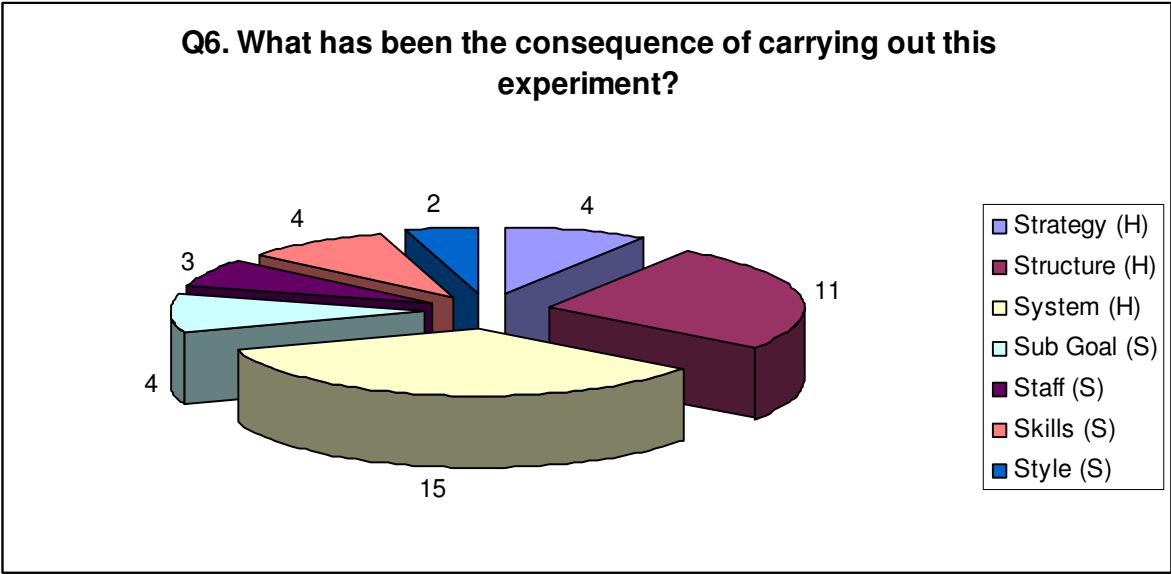
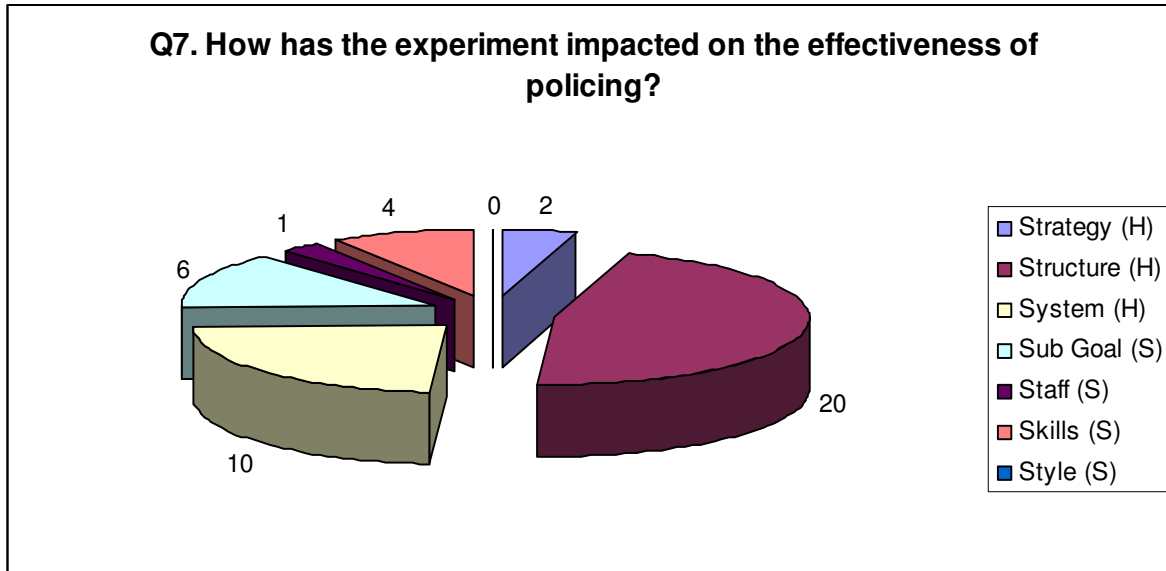


Figure 9 provides a wider variety and depth of data in response to question 6 and implies that the consequences of the experiment have been predominantly in what McKinsey called the ‘hard’ areas of a successful company. In this context it relates to organisational preparedness, capacity building and resources linked to strategic aims. This may well relate to recognition that much of the context of current police change is under the shadow of further financial restraint.

As with question 6, the analysis of the responses to question 7 are far more informed by the analysis using the McKinsey 7S model. Figure 10 highlights the single largest area referred to by the contributors in answering this question was around ‘Structure’. This implies the contributors see their experiments as having caused changes to structure as the single largest impact, something which may not be a surprise bearing in mind the financial climate. Again the emphasis remains on the ‘hard’ elements on McKinsey’s Model, something that is assessed further in the analysis.

Figure 10.

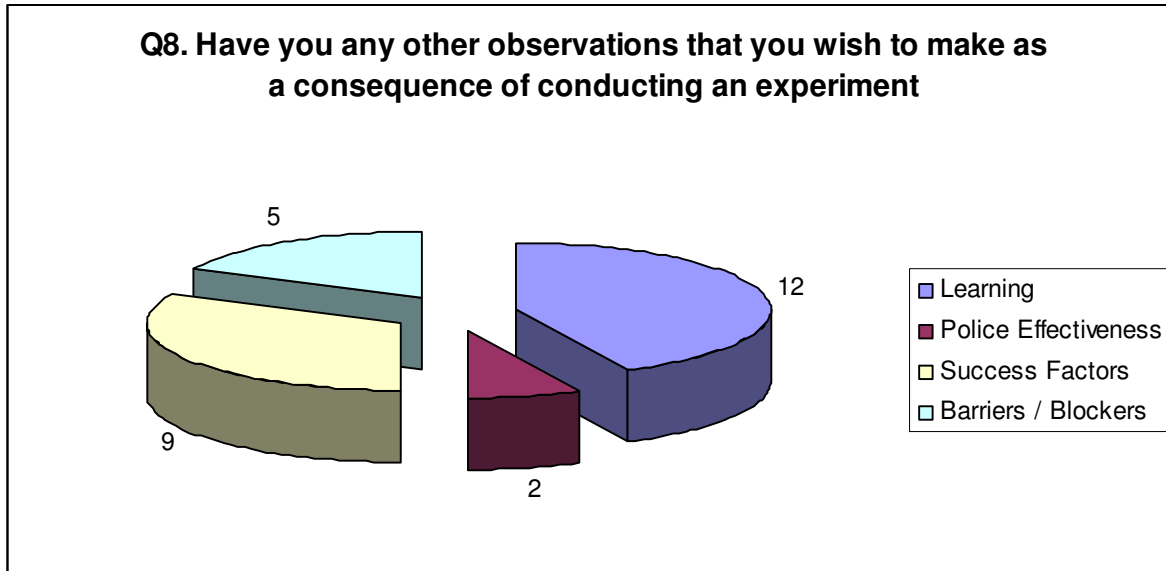


The final question was designed to illicit any outstanding issues that the contributor felt may be relevant to the interview and the subject matter. It was also observed that it was the question that directly evoked the most reflection by the contributor, in two cases the contributors took this as an opportunity to discuss their reflections of the experiment, having now been subject to the interview. In fact two further candidates chose to share their reflections of the interview immediately it had concluded.

What came out was that given this short opportunity to discuss and think about their activities and thoughts in carrying out the experiment, it was in fact the only chance they had to reflect upon it. Whilst the author was keen not to introduce bias to the interview and avoid prompts and suggestions (particularly with his background knowledge of many of the individuals and experiments), it transpired that in doing so it in some part acted as a coaching session, where contributors were able to learn themselves from the interview.

Figure 11 highlights the reflective nature of the contributor's responses, with the largest segment of responses being around learning and included self learning. Further analysis of this is carried out further in this chapter.

Figure 11.



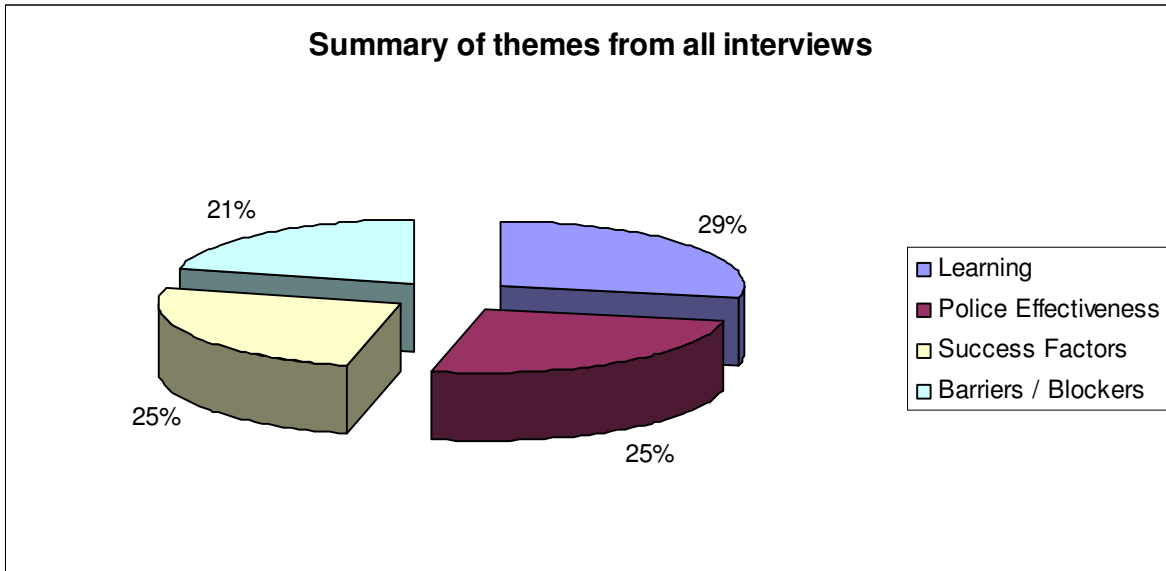
4.4.2. Analysis and findings from combined responses

Having analysed the responses to the individual questions, to provide more depth and understanding the analysis looked at wider patterns and themes across the whole interview. In part this is recognition that as part of a semi structured interview contributors and the author are liable to talk freely and not always respond in neat orderly fashion to assist the research. In addition however it is often the non-directed references in responses which illicit the greater learning of where the priorities lie, even if that is not part of the conscious thinking.

As a consequence this next analysis seeks to find wider patterns through the combining the findings from the individual questions and is presented in *Figure 12*, and *Figure 13*.

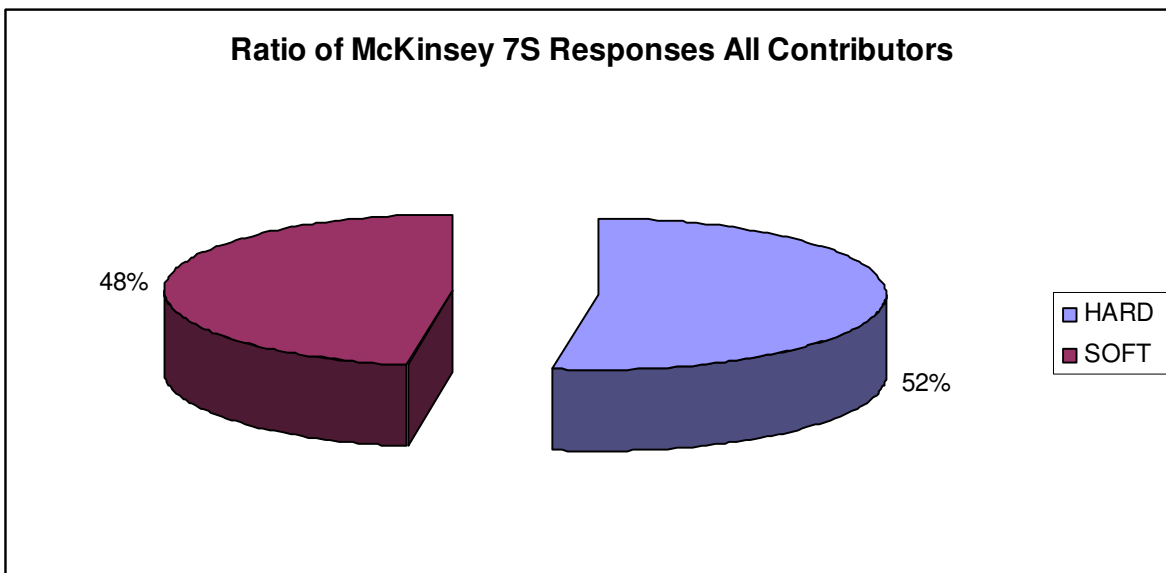
In summary whilst there are three themes, the breakdown of the success factors and barriers and blockers (*Figure 12*) identifies a relatively even split between the four headings. In itself this reflects that the contributors have concentrated significantly more of those factors that support or hinder the experiment, than the learning that can come from the experiment and the delivery of police effectiveness.

Figure 12.



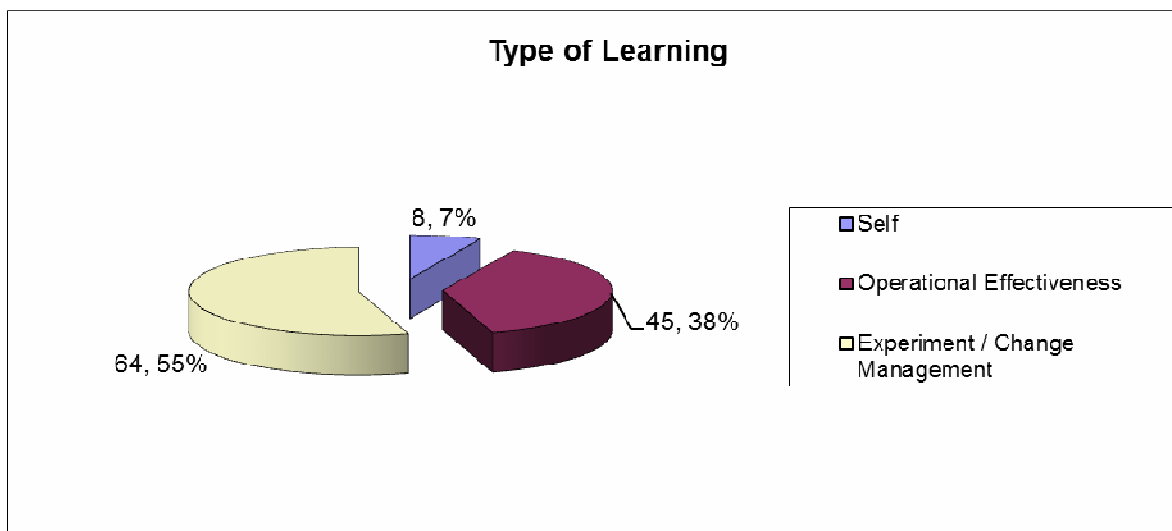
In the analysis using McKinsey’s Model *Figure 13* demonstrates a fairly even split between references to the ‘hard’ and the ‘soft’ elements of a well run organisation. It is not surprising as previously mentioned that ‘Structure’ and ‘System’ are the largest segments, but ‘Sub Goal’, is noticeably significant reflecting the prominence of culture in the contributors responses.

Figure 13.



In an attempt to gain a more interpretive understanding of the data analysis a further review of some key themes has been undertaken. In relation to learning *Figure 14* reflects a deeper analysis of the types of learning that the contributors achieved from conducting the experiments.

Figure 14.



The findings show that the greatest learning comes in relation to managing an experiment and general issues of change management. To some extent this supports the findings of Patterson, (2011) and Lundin and Nulden, (2007), who identified that police learning and the study of ‘*everyday mundane police work*’ needed to link more directly to practical improvements in effectiveness.

In analysing this position further the analysis seeks to gain an understanding of how effective the experiments were, as perceived by the contributors. Through the questioning they articulated the aims as they perceived them to be and ultimately whether they had been delivered. *Table 4* reflects a summary of their articulations regarding the experiments and the measures of effectiveness.

On first analysis of *Table 4* there appears to be contradictions, in Experiment 1 and 5 the feedback was that the aims had been met, yet there was no evidence. In Experiment 4 there was an acceptance that the aims were not met, but an acceptance that it was not relevant as an ulterior purpose had been achieved.

Table 4.

POLICE EFFECTIVENESS DELIVERED BY EXPERIMENT				
	Initial Aims	Measure of Effectiveness	Evidence of Effectiveness	Initial Aims Met
Experiment 1	Yes	No	No	Yes
Experiment 2	Yes	Yes	No	No
Experiment 3	Yes	Yes	Yes	Yes
Experiment 4	Yes	No	No	No
Experiment 5	Yes	Yes	No	Yes
Experiment 6	Yes	No	Yes	Yes

In regards to their necessity to deliver police effectiveness it was implicit in many of the responses that the aim of many of the experiments was to achieve the delivery of a pre-determined option. The experiment was to ensure that the option was achievable, not necessarily to learn whether it was the most effective option.

The comment from one contributor, '*no direct cause and effect*' typifies the attempts to link their experiment to anything wider than the narrow deliverables. The mixed interpretation by the contributors as to evidence, demonstrates the difficulties identified by Bradley and Nixon (2009), as to the academic rigor of police studies.

All this however is not to say that the contributors were not seeking to gather evidence, with four of the six contributors creating a baseline of data to undertake the experiment on. What appears however to have occurred is that the baseline was the evidence upon which the experiment was undertaken, the gaps then appeared in capturing the learning and changes to data during the experiment.

One constant reference to quality learning that came from the contributors was the ability or capacity to capture information directly from the frontline. Where this occurred the learning increased and where it could not occur or was delayed there was an acceptance that valuable learning was lost.

One key phrase that was repeated by all the contributors was ‘buy-in’ and the slightly wider connotation of support. Within the analysis ‘Staff’ includes staff involvement and ‘Skills’ includes management commitment and capability.

Throughout all the interviews there were eighteen direct quotes of ‘buy-in’ primarily in relation to officer and staff ‘buy-in’ and thirteen references to management support. Whether the numerical analysis reflects the prominence of this, the observation from the author in conducting the interviews was that this combination was seen with all the contributors as vital to achieving delivery, success and support within Cheshire Police.

In relation to management support many contributors directly cited a senior manager who ‘supported’ their experiment, with one contributor citing the lack of an identified senior manager to ‘support’ the experiment as a limiting factor in its delivery. Interestingly one contributor whose experiment was concentrated on operational activities cited a culture of implicit support from senior managers; therefore no requirement was needed for a nominated ‘supporter’.

Having carried out the literature review and formulated a conceptual model based around the proposed correlation with McKinsey’s 7 S Model and Learning to create improved delivery of police effectiveness; this was placed into a two-by-two matrix (*Table 3* repeated below for ease of cross reference). In order to test this conceptual model the data extrapolated from the interviews was used. With no baseline of data to identify ‘high’ and ‘low’ the only anchorage was within the research data. As a consequence the basis for high and low came from the frequency of references from each contributor, identified in *Table 4*, with the highest frequency being deemed high and the lowest low, and the rest graded proportionately.

Prior to testing the analysed data however the contributor's self-assessments as recorded in *Table 4* were matched into the two-by-two matrix and recorded in *Table 5*. This reflects a spread, with Experiment 4 showing no improvements to police effectiveness and learning, but Experiment 3 and 6 delivering police effectiveness with an evidence base.

In order to test the conceptual model and the self-assessments required the analysed data to be matched into the two-by-two matrix using frequency of references as mentioned. The first extrapolation was based on the contributor references coded against McKinsey's Model and all references to learning. The findings for this are represented in *Table 6* and when compared with the self-assessment in *Table 5*, reflect on two of the six experiments with the similar placing in the matrix. On this basis the analysis would seem not to support the conceptual model, if we are to accept that the contributor self-assessment was an honest reflection of effectiveness.

Having already identified a split in the types of learning – self; organisational effectiveness and experiment/change management *Figure 14*, it was therefore decided to test the conceptual model where only learning references to organisational effectiveness were counted in the frequencies. The rationale for this was that the conceptual model sought to assess police effectiveness and operational effectiveness is directly impactful. When this data was placed into the two-by-two matrix, *Table 7*, the findings were such that four of the six experiments matched the self-assessed matrix. This indicates that the conceptual model is more likely to be aligned to operational effectiveness than managerial effectiveness. This would support the hypothesis that in order to improve evidence based police effectiveness it is not sufficient to learn, regardless of whether the learning is managerial, it is vital to focus the learning on operational effectiveness.

Table 3.

Success factors/Barriers and Blockers

	Low	McKinsey 7 S Model	High
High	Evidence of learning but no evidence of improved effectiveness		Improved police effectiveness, with evidence base
Learning	No improvements to police effectiveness and no learning		Improve effectiveness but no understanding of how to replicate
Low			

Table 5.

Contributor Assessment
Success factors/Barriers and Blockers

	Low	McKinsey 7S Model	High
High	E2		E3 E6
Learning			E1 E5
Low			

Table 6.

All learning
Success factors/Barriers and Blockers

	Low	McKinsey 7 S Model	High
High			E1 E6
Learning	E4 E5 E2		E3
Low			

Table 7.

Operational Effectiveness
Success factors/Barriers and Blockers

	Low	McKinsey 7 S Model	High
High	E2		E6
Learning		E5	E3 E1
Low	E4		

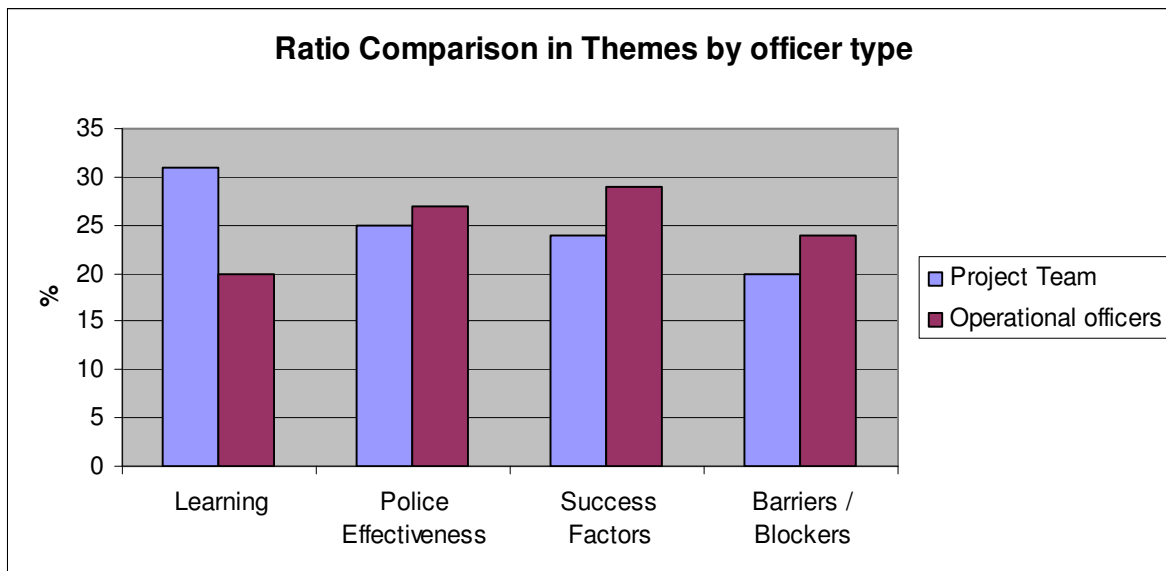
4.4.3. Analysis of findings by officer role and experiment type

Whilst there is an acceptance that the qualitative assessment of six contributors does not reflect Cheshire Police, the interpretive ontological methodology seeks to learn from the observation and comments of the contributors. With this in mind the data was analysed to identify any findings cognisant of the contributor's role at the time of the experiment or the type of experiment undertaken.

Whilst there is a recognition that in statistical terms one individual can tip the balance in terms of references to particular themes, the qualitative nature of the research allows for the author to balance this with their understanding, having conducted the interviews. The next analysis therefore seeks to analyse the patterns between different roles and types of experiments.

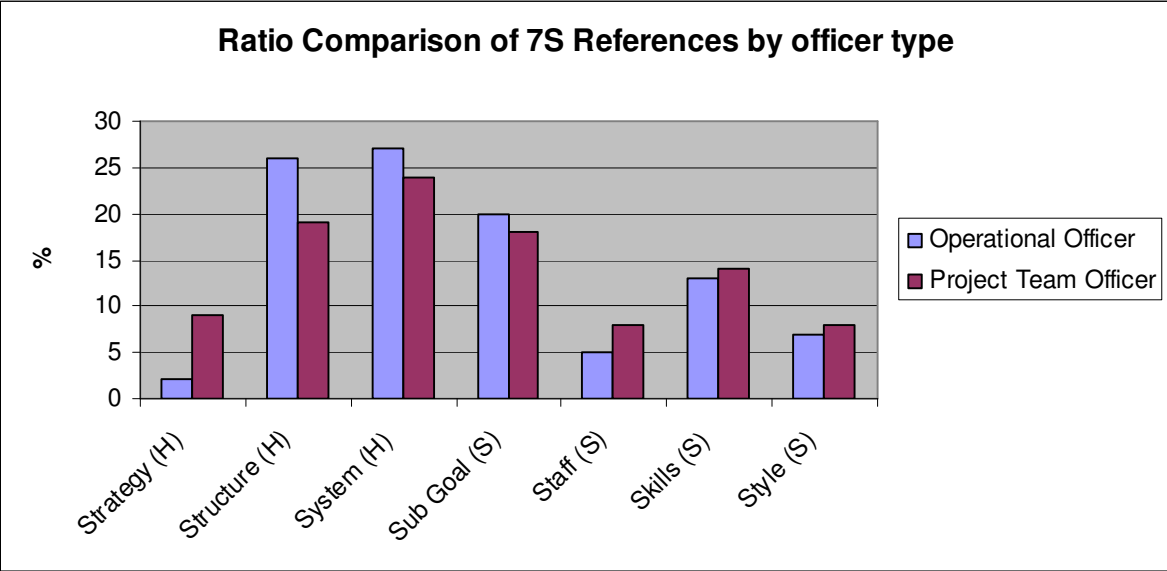
When assessed as a comparison ratio, as per *Figure 15* the analysis of the themes mentioned seeks to show where the emphasis lies in what the contributors responded. Here there is a clear difference, with the focus of those officers on Project Teams more concentrated on learning, than those operational officers.

Figure 15.



Whereas when assessed against the McKinsey Model the difference in *Figure 16* highlights that over half the references made by operational officers are in relation to ‘Structure’ and ‘System’, with relatively little reference to ‘Strategy’. This would imply that operational officers, engaged directly in delivering policing are focused on a more narrow area of the organisation, whereas given the opportunity to come away from the frontline, in a Project Team the thinking becomes wider and more strategic.

Figure 16.



The findings are similar when viewed against the experiment type, as per *Figure 17* and *18*. They show that where the experiment is more inclined to operational delivery the emphasis of the contributor is less inclined to learning and more towards the police effectiveness.

It is also worthy of note that only one officer represents ‘Operational only experiment’, but interestingly the focus is clearly on the success factors as per *Figure 17*.

Figure 17.

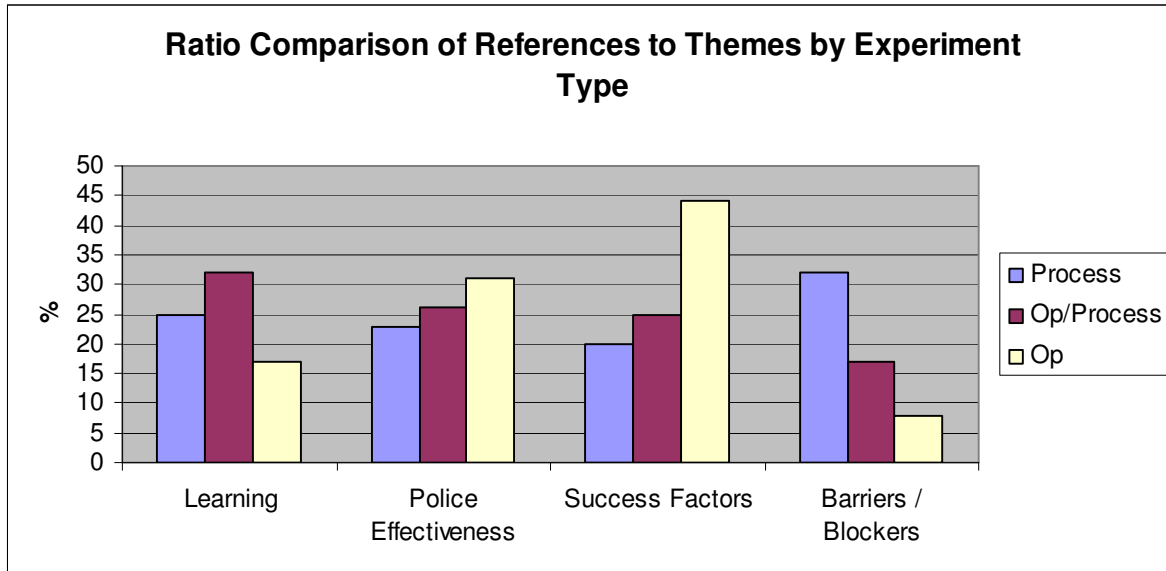
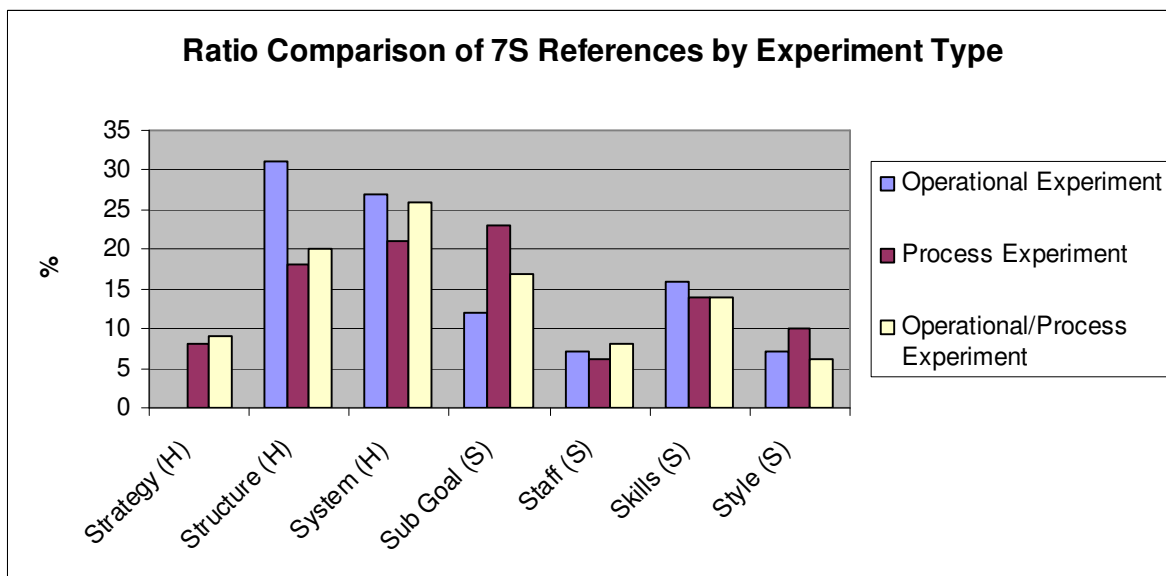


Figure 18.



4.5 Summary

This chapter presents the findings of the semi structured interviews and the analysis of that data. It presents the information as narrative and in chart form, seeking to highlight key findings and areas of interest that will be drawn upon in the concluding chapter.

5. Chapter Five: Conclusions and Implications

5.1. Introduction

This chapter presents the conclusions against the research findings and analysis presented in Chapter Four. It seeks to use the findings and analysis, alongside the literature review to address the initial aims of the research. At the same time it also presents an evaluation of the methodology as a means of researching the proposed aims and ultimately the overall research question: An investigation into Experimentation as a Means to Encourage a Police Service to work More Effectively.

5.2. Critical Evaluation of Adopted Methodology

The adopted methodology selected six contributors to be interviewed by means of a semi structured interview. Owing to practical reasons the selection of contributors was limited to the six who were interviewed. This presented potential issues of bias and influence with the nature of the professional relationship of the contributors and the author.

In the case of two of the candidates they are currently within the line management structure of the author. This might question whether they were co-operating volunteers or felt compelled to support because of the hierarchy issue. Having then agreed to be interviewed did the fact that the author was a senior manager have an impact on their ability to be comfortable in providing an honest reflection of the phenomena they were describing. In particular this may have impacted on the willingness to identify barriers and blockers, which may involve managers or even the author.

With the remaining four contributors having all worked under the management of the author in the past the issue of potential bias was a significant concern. In an attempt to minimise this all contributors were informed that the request to participate was outside the work framework and that there was no obligation to participate. The details of the interview and the fact that it would be recorded were all made aware to the contributors prior to them agreeing.

The author's observation is that Cheshire Police have already begun to understand the benefits of reflection and systemic understanding, and it was probable that those officers who have conducted experiments were more open to interviews for learning. The author's perspective therefore is that whilst cognisant of the potential issues, the belief before and following the interviews is that contributors demonstrated a comfort in answering the questions and an ease with the author.

Having ensured that the contributors were confident to speak openly to illicit the best information for analysis the issue of the experiments themselves had to be considered in relation to bias. The author was directly aware of all the experiments and had been partially involved in two of the experiments. As a senior manager in Cheshire Police the author is also responsible, with all police officers in the organisation, for the implementation of the outcomes from four of the experiments.

This knowledge and involvement so directly with the case studies meant that the author had to ensure he kept his bias limited during the interviews. The design of the semi structured interview assisted in reducing the bias from the author, but it is recognised that to assist the flow of the interview and seek to fill gaps in understanding further questions were asked. The author did seek to be non-judgmental; however there is a chance that his personal views were reflected in the points sought in clarification. Such issues were identified in choosing the type of research and the recognition that this is a descriptive piece of research and whilst bias may not have been fully eliminated, there remains a value in all the responses from the contributors.

The decision to use two methods (three themes and McKinsey's 7S Model) to code the transcripts proved to be useful in providing a greater depth of analysis. On one level the analysis using the three themes often highlighted a pattern of responses which the questions had been designed to illicit, it was therefore questionable as to whether they were directed and biased responses. The analysis using the McKinsey Model however provided a greater depth of information which often worked well in supporting the three themes data or on occasion on its own, to provide findings from the interviews.

Overall therefore the adopted methodology was an adequate method to gain data and understanding for this qualitative interpretive phenomenological research. It was successful in gathering rich data that was able to be analysed and provide an understanding of the impact experimenting has on delivering police effectiveness.

5.3. Analysis on Findings on Each Research Aim

The research aims will be considered here separately and conclusions drawn from the presented data analysis in Chapter Four.

5.3.1. To understand contemporary literature on 'police learning methods'.

Through the research the author identifies contemporary literature regarding police learning, Bradley and Nixon (2009), Chan (2003), Heslop and White (2011), Klofas, Hipple, & McGarrell, (2010), Patterson (2011) and Innes (2010)) which demonstrate the frustrations with aligning police learning to a more robust evidence based model and alongside more effective academic research. The findings of Campbell and Kodz (2011) conclude that the police need to find new and better ways to do things.

In order to gain a greater understanding it required a wider understanding of non police literature, to recognise to the deficiencies in literature regarding police learning. The studies by Kolb & Kolb (2009) and Kolb (1984) suggest that to improve the learning systems of an organisation they should adopt an experiential model of learning, where the concepts are learning cycle, learning style, learning space, deep learning and development.

The authors understanding of this review of literature suggests that experiments in the workplace would satisfy the '*learning cycle*' and '*learning style*' suggested by Kolb & Kolb (2009). However to fully satisfy and address the frustrations of previous studies the '*learning space, deep learning and development*' are required to raise the level of effective learning in policing.

5.3.2. *To understand contemporary literature on ‘delivering effective policing and improvement’.*

Within the literature regarding police effectiveness there is no clear consensus as to what defines policing, as the role continues to grow and change as society’s expectations change. Therefore the ability to define effectiveness is limited within the literature to small areas of practice, predominantly around the investigation of crime, which is recognised as being only 25% of police demand, Waddington (1999), Johnston (2000).

The complexity in understanding ‘effective policing and improvement’ is summed up in the study by Harkin (2011) who recognises the difficulty in measuring police effectiveness. Even the meta-analysis study by Telep and Weisburd (2012) recognised that there were large gaps in the study of police effectiveness.

The understanding from the literature consequently supports the difficulty police officers have in attributing experimental learning and development to defined measures of effectiveness.

5.3.3. *To investigate the current approach to experimentation in Cheshire Police.*

The interviews provided by the contributors gave a rich narrative to the type of experiments that had occurred across Cheshire Police. The fact that they covered a range of operational and process aspects of the organisation reflects that it is being adopted to address a variety of issues.

The inclusion of project team officers and operational officers, demonstrates a wider acceptance of experiments as a method to develop new thinking. The analysis in *Figure 15* however highlights that the project team officers concentrate proportionately more on the learning than the operational officers. This may suggest that in order to maximise the learning the operational officers lack either the capacity or the capability, or as Kolb & Kolb (2009) state ‘*learning space, deep learning and development*’, highlighting the academic frustrations of a lack of evidence based learning in policing.

Whilst the research did not seek to understand the reasons why experiments took place through the analysis identified in *Figure 1* it was identified that 71% of the responses regarding the description of the experiment and the reasons for it relate to the ‘hard’ elements around strategic direction, the structure of the organisation and the systems of delivery. This would suggest that experimentation currently reflects the necessity to reduce the size of the organisation and continue to deliver a service with a reducing budget.

Through the analysis in *Figure 14*, the breakdown of learning type is heavily weighted towards learning around experimentation and change, as opposed to organisational effectiveness. This reflects the lack of maturity as a means of learning and developing operational effectiveness, as much of the emphasis from those conducting the experiments is centred on the experiment process, rather than improvements to police effectiveness and improvement.

5.3.4. To analyse the impact of experiments in developing police practice.

From the analysis of the data *Table 4* succinctly represents the impact of experiments in Cheshire Police. At the current time where the aim is the delivery of a pre-determined objective this is achieved. This is supported in *Figure 8*, which evidences the consequences of the experiments are police effectiveness, but the lack of evidence suggests that the contributors do not see the clear objective of policing to ‘*cut crime*’, Home Office (2011) and support the observations of Harkin (2011) that measuring police effectiveness is difficult.

However when viewed with *Figure 10*, it reflects the assessment of effectiveness is predominantly around structure change, aligned to the budget reductions. Such findings are perhaps predictable in light of the observations of Cox (2011) and HMIC (2011) that the police are facing the ‘*biggest financial challenge of a generation*’.

When viewed through the data in *Figure 14*, it highlights however that the emphasis on learning being on the experiment processes as opposed to police effectiveness supports the findings of Wouters & Wilderom (2008), that when employees have a voice in the

formulation of procedures, the measures of performance should support them to do their work better.

Through the application of the conceptual model and the two-by-two matrixes the impact that the emphasis on experiment and change process has, compared to that of operational learning is shown. Where the operational learning is applied there is a higher proportion alignment to an improved effectiveness with an evidence base.

This would suggest that as previously mentioned the experimentation process is still immature, supporting the findings of Telep and Weisburd (2012) that there are still large gaps in the study of police effectiveness. However the desired aim for the organisation should be to strive for operational learning through experimentation to achieve evidence based improvements to effectiveness. What was observed by the author was the need to create opportunities for those engaged in experiments to reflect on what they have done to focus the learning and accelerate the wider operational development of experiments to improve police practice.

5.3.5. To draw conclusions around the factors which act as contributors or blockers to successful experiments in policing practice.

Through the analysis of the data it is clear that the identified success factors and barriers and blockers reviewed in Chapter Two are significant factors in the experimentation. The data reflected in *Figure 4* and *6* demonstrates the significant impact the barriers and blockers have in restricting the success of the experiment and ways in which the outcomes could be improved. All of these support the findings of Radnor and Walley (2006), who identified a series of success factors and barriers, all of which are included within *Figure 13*.

With *Figure 12* highlighting that 46% of the responses concerned the success factors and barriers and blockers it demonstrates the contributor's awareness of these issues. Much of this is represented as the learning regarding the experimentation and change process. The findings in *Figure 17* however show that operational officers concentrate on operational effectiveness and success factors, proportionately concentrating less on learning and the

blockers. This follows the findings of Stone (1993), Sherman, Buerger and Gartin (1989) and Weisburd et al (2010), who recognised that capacity of operational staff is a factor in maximising learning.

Of the issues that are identified within the success factors and barriers and blockers, the most repetitive theme highlighted as a success factor if achieved but a barrier if not is ‘buy-in’ and support. As commented upon by all the contributors this seems to be the single most prominent theme that impacts on the success of the experiment. This ranges from the support of strategic leaders, senior managers their ‘buy-in’ to visibly support the experiment, to the ‘buy-in’ of those staff delivering the experiment and their feedback around practicalities. Such observations were highlighted through the study of Johnston, (2000) who witnessed the police officers failure to ‘buy-in’ saw them dismiss the tasks as ‘rubbish work’.

On drawing a conclusion on this, the recognition by contributors in *Figure 3*, is that the scale of change driven by the budget reductions and the use of new methods of learning, such as experimentation is very much around culture (Sub Goal) and those who conduct change need to learn what factors influence the culture, to ensure that the delivery of experiments concentrates on delivering an evidence based effective service.

5.4. Conclusions about the Research Question

The research question to be considered is: ‘An investigation into Experimentation as a Means to Encourage a Police Service to work More Effectively.’ The presupposition was that Cheshire Police are conducting experiments in order to work more effectively.

The conclusion to the research would be that based on the literature and the findings that experimentation does fulfil the need highlighted by Campbell and Kodz (2011) that the police need to find new and better ways to do things. Experimentation offers the basis upon which evidence based learning can occur within an experiential learning cycle as advocated by Kolb & Kolb (2009).

However the findings regarding where the concentration of learning has been, around the process of experimentation, (*Figure 14*) would support the observations of Boba (2003), in that officers are not skilled for analysis. But the contradiction to this is that there is evidence of analysis and learning in relation to improving management and there is also evidence (*Figure 10*) that contributors can deliver changes required to deliver structure change and budget reduction. The conclusion to be drawn from this is that officers are skilled for analysis, but rather than concentrating learning on effective delivery, they are concentrating on improved management and structure.

The conclusion drawn from this is that at the beginning of the research the study highlighted '*competing notions of what policing ought to be*' Cox (2011). This complexity and failure to define policing, has allowed the experimentation in Cheshire Police to measure success with little evidence of effective delivery and demonstrate effectiveness on delivery of pre-determined objectives, which in this current climate are often based on reducing financial outgoings.

At a time when significant change in policing is required, it is no longer sufficient to experiment for the sole purpose of learning, if that learning does not demonstrably lead to a positive impact on police effectiveness. This research suggests that experiments have the potential to deliver that learning, but the focus needs to be directed and more concentrated in the future.

5.5. Limitations of the Study

The study undertaken using the interpretive qualitative methodology provided the opportunity to gather a rich body of information from those who had managed experiments. The limitations of the study were however that the information particularly in relation to operational effectiveness was unchallenged.

As a consequence the question and understanding of what is effective policing remained unanswered and the contributor's interpretation of delivery of effectiveness was open to a self determination. In a number of the experiments delivering an aim was perceived to be

successful effective delivery, without necessarily providing evidence that could be used to take the learning forward.

The failure of the study to gather additional or independent data to challenge the effectiveness of the delivered aim meant that there was no option to measure which factors had the greatest impact. In addition there was no opportunity to test the effectiveness against measures such as improved service and reduced costs; as a consequence the research remained an analysis of the perceptions of those conducting experiments.

5.6. Opportunities for Further Research

The opportunity for further research is based around the identified limitations of the study. A more quantitative study of experiments undertaken in Cheshire Police would analyse the effectiveness of the experiments based on evidence of hard factors such as cost and measurable service delivery.

This further research would provide some wider understanding of effectiveness, have the additional benefit to the organisation of providing support for cost savings and ultimately recognise that experimentation can provide improvements to effectiveness at a time when budgets in policing are reducing.

5.7 Recommendations

This study has built upon the author's involvement with experiments in Cheshire Police. The learning for the author has ensured that he will look to see that the organisation maximises the opportunities for experimentation. However the recommendations from this learning will be to introduce a panel of multi-disciplines designed to support experimentation, provide expertise and ultimately to ensure that experiments deliver learning regarding effectiveness.

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