CRIME HOT SPOT POLICING IN THE QUEENSLAND POLICE SERVICE: A WORK BASED PROJECT

A Thesis submitted by

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ABSTRACT

This research project supports the Queensland Police Service (QPS) commitment to embrace innovation and to strengthen the organisation's capability to prevent, disrupt, respond to and investigate crime and to deliver safe and secure communities. The purpose of this research is to champion networks and partnerships across the QPS, other policing jurisdictions and academic experts in the field to create opportunities that have a higher probability of yielding a sustainable impact on preventing crime. Hot spot policing is policing focused on small and specific geographical locations where crime is concentrated. The appeal of focusing limited resources on a small number of high-activity crime areas is based on the belief that if crime can be prevented in these hot spots, then total crime rates across a city will reduce. This research is a work-based project that presents unique findings with evidence-based solutions to inform future practice in hot spot policing. The research methodology used in this study was exploratory, using a quantitative design aimed at gaining in-depth insights and understandings, combined with multiple sources of information and perspectives, to answer the research questions: 'What is an effective framework for hot spot policing that increases QPS efficiency in reducing the incidence of crime in a policing district' and 'What steps are required to create capacity and strategic resourcing for effective hot spot policing in the QPS'? As part of the project, the researcher completed a literature review, presented findings from a Crime Hot Spot Experiment conducted in the researcher's workplace, collected and analysed data from a survey and discussed learnings from policing experiences. The outcome of the research project was the creation of a fit-for-purpose, sustainable policing framework that outlines the steps required to create capacity and strategic resourcing for effective crime hot spot policing in the QPS.

CERTIFICATION OF THESIS

I Emma Thomson declare that the Thesis entitled Crime Hot Spot Policing in the Queensland Police Service: A Work-based Project is not more than 100,000 words in length including quotes and exclusive of tables, figures, appendices, bibliography, references, and footnotes. The thesis contains no material that has been submitted previously, in whole or in part, for the award of any other academic degree or diploma. Except where otherwise indicated, this thesis is my own work.

Date: 17 September 2022

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TABLE OF CONTENTS

LIST OF FIGURES

CHAPTER ONE: INTRODUCTION

The prevention of crime, the preservation of peace and the protection of communities are fundamental functions of policing services. The crime environment in which police operate has become increasingly complex and dynamic (QPS 2020). Several factors continue to challenge police capabilities in terms of identifying, targeting and preventing criminal activity (QPS 2020), such as crime complexity and seriousness, economic, social, technological and environmental impacts, and police resourcing and training.

Policing organisations hold rich data across numerous information sources, including crime rates and crime locations, however this information has not always been utilised effectively or used at all to determine specifics about specific crime areas and the causal factors for it. In addition, the demand for a policing response to the community can be so high that reactive policing becomes the focus due to limited resources. With limited resources and limited time, the use of proactive, evidence or intelligence-based strategies sometimes takes a back seat, leaving the questions of why does crime occur, where exactly does it occur and, ultimately, what should police do to prevent it, unanswered. The challenge for policing organisations, including the QPS, is to identify innovative opportunities to deliver high quality, efficient policing services during a period of government budgetary constraints and limited resources (QPS 2020).

The hot spot policing approach is aimed at doing this and is built on the premise that police resources, such as uniform police patrols, can be used more efficiently and effectively to reduce crime by directing frontline officers and tactical operations to locations where crime is disproportionately concentrated (Ready and Thomson

2021). Numerous studies on hot spot policing have consistently found that the majority of crime is geographically concentrated in narrowly defined locations making practical sense for a police focus on these specific areas to affect crime rates (Weisburd and Braga 2019).

1.1 Research Justification

The author of this research project is a police officer in the QPS. The QPS is the principal law enforcement agency responsible for policing the Australian state of Queensland. Queensland is approximately 1.8 million square kilometres with an estimated resident population of 5,273,417 as at 30 September 2021 (Queensland Government 2022a). There are more than 12,000 police officers and 4,000 support staff employed by the QPS who work to ensure the safety and security of the community of Queensland. At the time of commencing this research and while conducting the 'Logan Crime Hot Spot Experiment' (to be discussed in Chapter 3) the author was the Officer-in-Charge of the Logan District Tactical Crime Squad (TCS). This squad was situated in the Logan policing district, one of 15 policing districts in Queensland. The Logan policing district covers over 3200 square kilometres across 70 suburbs and towns inland of the Gold Coast from Springwood to the border with the state of New South Wales (NSW). There are distinct geographical areas within Logan policing district, including residential, commercial, industrial, rural, entertainment, recreational, urban and town settings. The community is diverse with 215 different cultures, and the district is known as a busy, dynamic, and complex policing environment. Since the year 2000 the Logan policing district has seen a general increase in reported offences at a greater rate than that of the state of Queensland overall with the peak being in 2019 (Queensland Government 2022b). It is unknown whether this increase can be attributed to population growth

and/or an increase in reporting or simply the occurrence of crime. It is within this policing district that the researcher spent 20 years as an officer across multiple roles.

Throughout this time as an experienced practitioner, the researcher identified that often in high crime areas, the targeting of crime was predominantly reactive and focused on large geographical areas. Policing organisations attempt to keep up with the relentless volume of crime whilst utilising the limited resources available to them. This reactive and broad style of policing often leads to the formation of ‘quick fix’ strategies that are based on limited research, intelligence, and collaborative input from key areas, including external agencies and the community. These types of policing operations are often expensive, involve limited planning and structured taskings, and require large resource deployment, often affecting other policing activities.

Unfortunately, these strategies can appear to yield acceptable results in the short-term providing a false sense of achievement or success. One vital issue with policing this way is that it is difficult to attribute successes, such as reductions in crime, to the actions of police. Before long, police move onto the next issue that requires targeting, leaving the last one potentially to flare up again without ever establishing or measuring where exactly the crime problem was, why the problem was there, and what police did effectively, if anything, to solve the problem. To address these issues, the researcher, with support from Griffith University in Brisbane, Australia, conducted an experiment bringing an innovative Intelligence-led strategy to persistent crime hot spots in the Logan policing district. The role of the researcher/practitioner in that experiment was to plan, coordinate and evaluate the policing study with the guidance of Associate Professor Justin Ready (Ready and Thomson 2021). For this present research project, the author builds on the findings

from the Logan hot spot experiment using quantitative data from key policing stakeholders to inform effective hot spot policing in the QPS.

Strategically, this research project supports the QPS commitment to embrace innovation and to strengthen the service's capability to prevent, disrupt, respond to and investigate crime and to deliver safe and secure communities (QPS 2020).

1.2 Purpose

Current research suggests that there is a gap regarding the effective implementation of crime hot spot strategies, implying that a collaborative approach involving the community and external agencies, in addition to numerous policing areas, would enhance the outcomes of such a strategy (Weisburd and Braga 2019). This project aims to demonstrate that implication by leveraging the knowledge and experiences of others and, by using a collaborative approach, the opportunity exists to focus on comprehensive strategies that attack crime and disorder at all levels (Weisburd and Braga 2019).

The present research aims to provide a platform to facilitate collaborative networks and partnerships across the QPS and other policing jurisdictions to create opportunities that have a higher probability of yielding a sustainable impact on preventing crime and on delivering best practice responses to enhance community safety (QPS 2020). The outcome of the research project will be the creation of a fit-for-purpose, sustainable policing framework that outlines the steps required to create capacity and strategic resourcing for effective crime hot spot policing in the QPS. To achieve this outcome the researcher chose to organise the knowledge drawn from research participants into three categories being: people; procedures (also known as processes); and products. This principle, sometimes known as the "three-Ps", is

used by business, organisations and project managers to develop strategies or public relations ventures (Matei and Nitu 2012). Goh (2005) stated the “three-P’s” are derived from the term ‘knowledge management’ (KM) and known as a generic process through which organisations generate value from knowledge. The researcher wanted to use this integrated approach to facilitate the selection of the best people; the improvement of processes; and make better use of information to provide efficient products for police (Matei and Nitu 2012). The researcher used the ‘three-Ps” principle to gather different types of knowledge contributions on people skills and experience, best practice hot spot procedures and strategies, and knowledge on useful products and tools to create a framework for crime hot spot policing and improve performance outcomes for preventing crime. Goh (2005) suggested KM transforms knowledge-based assets or the accumulated intellectual resources, provided by the research participants in this case associated with people, processes and products into knowledge capital.

1.3 Research Problem

This research is a work-based project that provides the QPS, and potentially other policing organisations and professionals, with evidence-based solutions to inform future practice in hot spot policing. Evidence-based studies in Australia on this topic are rare, and this is the first of its kind in Queensland. The outcomes of this research therefore aim to contribute to the knowledge of other professionals faced with the same or similar challenges in crime hot spots. The intent of this research project aimed to answer two high level research questions: 1) What is an effective framework for hot spot policing that increases the QPS’s efficiency in reducing the incidence of crime in a policing district; and 2) What steps are required to create capacity and strategic resourcing for effective hot spot policing in the QPS?’

1.4 Background and Context

Hot spot policing is “policing focused on small and specific geographical locations where crime is concentrated” (Lum 2017). For this study, and for the previous Logan hot spot experiment conducted by the researcher in cooperation with Griffith University, a crime hot spot location refers to a street segment defined by the street’s end or by its intersection with another street.

Through hot spot policing strategies, law enforcement agencies can focus limited resources in those areas where crime is most likely to occur (NIJ 2020). The appeal of focusing limited resources on a small number of high-activity crime areas is based on the belief that, if crime can be prevented in these hot spots, then total crime rates across a city or a policing district will reduce (NIJ 2020). Many policing organisations have used the hot spot concept; however, the police strategies, tactics or interventions used or performed in these hot spots have varied widely, making it difficult to pinpoint what does and does not work (Lum 2017). In addition, the methods used to identify hot spots, which also differ in size and crime risk, are varied (Lum 2017).

Although somewhat successful, hot spot policing is just one of a range of strategies used to combat crime. Other theories exist that show important outcomes, including community policing, problem-orientated policing and community crime prevention. Hot spot policing is traditionally an evidenced-based policing strategy; however, to increase the efficiency and effectiveness of hot spot policing, this study considered giving more attention to integrating elements of other theories to better understand and to identify why crime is occurring and how the police and community can work together to address the problem (Weisburd and Braga 2019).

1.5 Significance and Scope

Although numerous successes have been observed over the years in terms of ‘fighting crime’, it is difficult to analyse why exactly the successes came about. Crime continues to happen in the same places, and police continue to work hard to stop it without entirely appreciating why it happens there and what works to prevent it. There is a requirement to conduct measurement and analysis to link police actions appropriately with the outcomes. It is for this reason that the researcher implemented the initial crime hot spot experiment in the Logan policing district. The researcher wanted to know where the highest crime locations were, what made them hot spots, what action to take and ultimately, how to measure what was done so that crime outcomes could be attributed to policing efforts. The Logan hot spot experiment measured the effect on crime after a 'policing dosage', made up of numerous policing interventions, was implemented in 10 crime hot spots over eight weeks. The hot spots were identified using two separate sources of crime data and environmental observations before the locations were assigned randomly to 10 control and 10 experimental sites. In short, the intelligence-led policing operation in the Logan policing district resulted in a 16-23 percent drop in crime at micro-locations (Ready and Thomson 2021). From the Logan hot spot experiment, the researchers were able to substantiate from the research that hot spot policing can be effective. This research aimed to extend and refine the findings and to look at the importance of having a collaborative approach informing more comprehensively what we do and how we do it in these hot spots. By engaging with and drawing information from multiple policing areas and academic/experts, the researcher has gained better knowledge and insights to facilitate the provision of a framework to

provide clear guidelines for the implementation of crime hot spot strategies efficiently and effectively throughout the QPS.

1.6 Thesis Outline

The thesis covers six chapters, Chapter One being the introduction. Chapter Two is a literature review divided into five sections: 1) Background of crime hot spot policing; 2) Crime hot spots; 3) Hot spot policing interventions; 4) A collective approach and 5) Summary and conceptual model. Chapter Three provides an overview of the Logan hot spot experiment, including the background, methods, the policing operation, findings and recommendations and significance. Chapter Four describes the methodology adopted to address the aims of the study, and covers the research paradigm, method, research design, the survey, participants, data analysis, limitations, and ethical considerations. Chapter Five provides the results, which are divided into the three themes of: people, procedures and products, background characteristics of the participants and the hot spot policing framework. Chapter Six is the discussion of the results and Chapter Seven, the conclusion, which discusses the MPSR program learning objectives, the project outcomes and limitations finishing with the conclusion.

CHAPTER TWO: LITERATURE REVIEW

2.1 Background

In the past 40 years, the nature of policing has expanded beyond a person-focused approach to include a location-based approach (Kochel and Nouri 2018). Hot spot policing entails focusing police attention on small geographical locations where crime concentrates, thereby having the potential to make policing organisations more effective and efficient at targeting crime. This strategy is one of only a few policing strategies grounded in both theory and research (Kochel and Nouri 2018). It makes logical sense to focus police efforts on high-crime locations over high-crime individuals, given that crime is more concentrated by place than among persons; moreover, physical places do not move (Lum 2017).

In addition, targeting hot spots can potentially have an effect on the behaviour of offenders who are connected with that place (Nagin, Solow and Lum 2015). Hot spot policing is built upon theories about crime at 'places', treating a place (e.g., an address, a street segment or other small geographical areas) as the unit of analysis. Weisburd and Braga (2019) argued that there is strong theoretical justification for hot spot policing, and that evaluation evidence provides a solid empirical basis for the continued experimentation with and development of this approach.

2.2 Crime Hot Spots

Numerous studies in this area have found consistently that the majority of crime is geographically concentrated in narrowly defined locations, such as a street segment (Weisburd and Braga 2019). From a police operations standpoint, street segments are small behavioural settings that allow police to disrupt criminal networks and to strengthen guardianship near vulnerable targets. Street segments also have discrete

physical boundaries that create defensible spaces (Newman 1976) and a sense of ownership among the people who reside in those areas. Street segments are small enough to enable officers to apply sufficient dosage and treatment integrity during operations, optimising the residual deterrence effect of police after they have departed from the treatment areas. In the late 1980s, Lawrence Sherman and his colleagues provided the first application of theory to the spatial analysis of crime in places by conducting one of the most influential studies in hot spot policing. Sherman et al. looked at crime addresses in the city of Minneapolis, and he found that only 5% of the addresses in Minneapolis accounted for 50% of the crime calls to the police (Sherman, Gartin and Buerger 1989). This research also found that 5% of addresses accounted for 100% of calls for serious crime such as robbery, sexual assault and vehicle theft. Similarly, Spelman and Eck (1989) found that 10% of victims accounted for 40% of all victimisations in a given police jurisdiction. These findings provided empirical support for the proposition that places, particularly micro-locations, are important for reducing crime. Other researchers found similar results in different locations using different methodologies, all reporting a high concentration of crime in micro places (Pierce, Spaar et al. 1988; Weisburd, Maher et al. 1992; Weisburd, Green et al. 1994). Weisburd (2015) called this phenomenon the “law of crime concentration” (p. 135), given that the finding became so common. Attempting to explain the concentration of crime at specific places, Weisburd (2015) drew on Cohen and Felson's (1979) routine activity theory, , which specified that crime occurs when motivated offenders and suitable targets converge in time and space in the absence of capable guardians such as police.

Drawing on “routine activity theory”, Clarke and Felson (1993) subsequently conducted similar studies, and they also concluded that these places bring together

motivated offenders, suitable targets and an absence of capable guardians. Environmental and place-based criminologists have discovered that these locations, sometimes referred to as micro crime hot spots, are often nodes for businesses, leisure and/or travel activities, and they commonly have features or facilities that create criminal opportunities and that facilitate offending (Lum 2017). This was the case for the Logan hot spot experiment, in which 14 of the identified 20 hot spots, which made up the 10 control and 10 experimental locations contained one or more of these elements, such as parks, transport links, shops and businesses.

Crime pattern theory attempts to explain how the design of the environmental backdrop and the movement of people throughout space contribute to the increased risk of crime (Weisburd and Eck 2017). Specific characteristics of places put them at greater risk of crime occurring. Weisburd and Eck (2017) suggested that the reconsideration of traditional criminological theories, such as social disorganisation, is important when trying to understand the social and physical dynamics of hot spots. In support of this suggestion, Lum (2017) found that crime hot spots are often characterised by high levels of social and physical disorder. In preparation for the Logan hot spot experiment, systematic observations of 41 identified crime hot spots were performed measuring degrees of physical disorder, including the state of buildings with broken windows and graffiti, and landscaping and street conditions, including the amount and number of rubbish, cigarette butts and drug paraphernalia (Ready 2019). This collection of data suggested higher levels of disorder in the hot spot locations, confirming Lum's (2017) findings and Weisburd and Eck's (2017) suggestion that it is important to understand the physical dynamics of hot spots.

In addition to routine activity theory and crime pattern theory, Cornish and Clarke (1986) established that another possible theory associated with crime and place is

rational choice theory, whereby it is assumed that offenders apply rational choice in their decision-making about crime, and consider the possibility of apprehension – for example, does the risk outweigh the reward? In 2004, Weisburd and his colleagues found not only that half of the crime was generated by 4-5% of the city's street segments, but also that this concentration of crime remained stable over a 14-year period (Weisburd, Bushway et al. 2004). Significantly, this research, which was based in Seattle in the United States, found that the most problematic locations, a mere 1% of the city's street segments, which also proved to be stable over time, consistently produced 80 to 100 crime incidents per year throughout the study period (Weisburd, Bushway et al. 2004).

It is clear through this discussion of the concepts that form the basis of crime 'hot spot' theory that it makes sense to look at these locations with a more holistic approach. It is relevant that we can use technology to gather data about reported crime and calls for service, and to map specific street segments that cause our community the most harm, but, to combat the problem more fully, conducting an in-depth, comprehensive analysis of the hot spots environment and of the many factors or contributors responsible for the place being 'hot' will contribute significantly to making a long-term impact (Weisburd and Braga 2019). Understanding the environment that requires targeting will provide a platform upon which to explore a wide range of potential strategies to effect sustained success in that place. The Logan hot spot experiment used a physical observational instrument (Ready 2019) (appendix one) to collect environmental data to aid in the grouping for the control and experimental sites and to determine suitable policing strategies. This study also examined the value of such an instrument in aiding the formation of suitable crime prevention strategies.

2.3 Hot Spot Policing Interventions

Traditionally, crime hot spot interventions involved directed vehicular and foot patrols or fixed presence. Other interventions, such as drug enforcement, the targeting of repeat offenders and clearing outstanding investigations within the crime hot spots, along with problem-solving and crime prevention activities, have taken place. It has been difficult, however, to conclude over many years of policing in hot spots what works best in these specific locations to effect crime prevention. One thing that we do know is that hot spot policing generally has positive effects on crime. In recent years, crime scholars and practitioners have advocated the potential benefits of focusing police crime prevention efforts on crime places, with several researchers arguing that crime problems can be reduced more efficiently if police officers focus their attention on these places (Braga 2017). Braga and his colleagues conducted a systematic review of hot spot policing research assessing the effects of focused police crime prevention interventions on crime hot spots. The research provided robust evidence that hot spot policing is an effective crime prevention strategy (Braga, Turchan et al. 2019). In reviewing these studies of focused police interventions in crime hot spots Braga et al (2019) identified 78 tests of hot spots policing in 65 eligible studies finding that nearly 80% showed significant success with crime control gains associated with hot spot policing.

In addition to this localised success, focused police intervention at hot spot locations does not seem to result in the spatial displacement of crime into areas immediately surrounding targeted locations. Rather, crime control benefits seem to diffuse into adjacent street segments (Braga, Turchan et al. 2019). This is apparently because offenders operating at a targeted hot spot cannot easily move their criminal activities elsewhere unless they find other locations with similar criminal opportunities (Lum

2017). This serves as a significant benefit for police when intervening in crime hot spots, particularly when the limited resources of policing are considered.

Lum and Koper (2017) took their research further to suggest that enforcement interventions tailored to the particulars of these crime hot spot places and their problems can be beneficial and can potentially increase the effect on crime. For example, Braga (2019) suggested that tailored and problem-solving approaches at crime hot spots can be more effective than a general police presence at these locations in achieving sustained effects. Braga et al. (2014) conducted a systematic review of research, finding that problem-orientated hot spot policing programs have a greater effect on crime than do strategies that merely increase patrols. In terms of patrols conducted at crime hot spots though, numerous studies have shown that this strategy alone does affect crime; however, the time spent at the crime hot spot is also an important factor (Williams and Coupe 2017). This phenomenon, known as the Koper Curve (1995), has been the focus of many research studies since its identification, and it confirms that the benefits of increased time spent patrolling in a hot spot diminishes after the 15-minute point. Hutt and his research team (2017) found that patrols of 10-20 minutes in a given police shift have a significant impact on reducing crime; however, patrols of less than about 10 minutes and more than about 20 minutes are ineffective at deterring crime. Koper (1995) explains that this duration of time is optimal in creating a residual deterrent effect at a hot spot immediately after police leave the vicinity increasing uncertainty and raising the perceptions of risk at hot spots. Patrols of at least 10 minutes generate significantly more residual deterrence than is generated by simply driving through a hot spot and after 20 minutes, the returns from continued presence diminish (Koper, p. 668).

2.4 A Collective Approach

It therefore becomes clear that the specific types of policing interventions and the time, if merely patrolling, for example, spent at a crime hot spot depend on the types of crime and the type of place. The current policing environment in Australia and abroad has been described by Temple University Professor Jerry Ratcliffe (2016) as being information rich but knowledge poor. The insufficient use of intelligence has led police leaders to call for the greater use of data and criminal intelligence for shaping priorities and operations – an approach defined as Intelligence-Led Policing (ILP). Police organisations increasingly have access to data sources that provide real-time information relating to crime hot spot locations, repeat victimisations, domestic violence and prolific offenders. To date, many applications of intelligence-led policing have been reactive operations designed either to provide tactical case support or to augment traditional policing strategies. Studies of these police interventions have found that ILP increases efficiency and crime control benefits (Telep, Ready et al. 2017). However, the intent of ILP is to re-prioritise police resources so that intelligence is used for proactive strategic planning rather than for reactive tactical support.

In 2017, Braga and Schnell went beyond just putting 'cops on dots' and found that police should put a stronger emphasis on analysing the environment and should pay attention to the environmental conditions at crime hot spots that cause them to be attractive to potential offenders (Braga and Schnell 2017). One approach to hot spot policing with limited research involves engagement with the residents and the community at crime hot spots. Research in this area suggests that policing agencies can improve their place-based approaches by incorporating community-oriented principles (Lum 2017). The idea is to embrace a larger vision of the policing function

in crime hot spots, and to involve internal and external groups, including the community, to co-produce safety, crime prevention and sustained solutions to local problems specific to the place (Lum 2017). Braga (2017*)* concluded that problem-oriented policing interventions seem to generate larger crime control impacts when compared with interventions that simply increase levels of traditional police actions in crime hot spots. Braga also suggested that police should engage in collaborative, community problem-solving approaches to address crime hot spots that can also improve their legitimacy in disadvantaged minority neighbourhoods (Braga 2017). Research has shown importantly that policing in hot spots can affect community perceptions and police legitimacy, particularly when the interventions are seen to be forceful (Kochel and Weisburd 2017). Kochel and Weisburd (2017) recommended that police agencies engage with residents in identified hot spots before implementing focused policing strategies, and allow residents to provide input into the nature of the crime problems and into potential strategies for addressing them. Such an approach not only provides police with a unique insight into that place, but also allows residents to have a voice, an important element of forming procedural justice judgements (Kochel and Weisburd 2017). At a minimum, police should explain their planned actions to residents to avoid generating mistrust of officers' motives. Increasing officer presence with no prior communication to residents to explain this change may lead residents initially to question why they are being targeted with an additional police presence. Furthermore, explaining to residents that hot spot locations are selected using data about residents' calls for service would demonstrate the neutrality of the decision-making process, and should further promote procedural justice and legitimacy (Kochel and Weisburd 2017). Also, and again focusing on procedural justice and police legitimacy, Kochel and Weisburd

(2017) reported that, during community interactions in the course of implementing hot spot policing strategies, police officers should deliver polite and respectful treatment.

2.5 Summary and Conceptual Model

In summary, the literature about hot spot policing shows that this policing strategy works consistently, and that it not only works in the identified hot spot, but also has a positive impact on the areas surrounding it. Research also suggests that hot spot locations are relatively constant over time, and, for this reason, are worth the policing investment. Studies have been conducted measuring what could be done and for how long, and researchers have looked at which theories should be used to guide policing interventions in these places. Some research suggests that the definition of each hot spot should be quite rigorous to allow customised interventions, whilst other research continues to see success with traditional policing patrol methods. Theorists claim that the environment, including its state of disorder and its proximity to parks, shops, businesses, and transport, plays a part in providing a space that criminals find comfortable to commit crime. Despite the research about hot spots advocating focusing police attention on places as opposed to individuals, targeting individuals identified as causing crime in a hot spot may prove advantageous. So there appear to be many factors that can contribute to the crime in a hot spot and numerous ways to combat that crime. The current research about hot spot policing implies that perhaps a more holistic approach when looking at crime hot spot policing is required. Firstly, this is important to identify truly what makes a hot spot 'hot'; detailed information about that place needs to be obtained. With ILP, using police data, including calls for service and crime reporting, is an important scientific foundation on which to build our inquiries and research. The Logan hot spot experiment sought to

optimise the deployment of tactical officers by proactively using intelligence resources in the 1% of crime hot spots that experience the highest concentration of violent, public order and vehicle-related crimes in the Logan policing district. To expand on this and to develop extensive knowledge of a hot spot, the idea of consulting key persons and organisations connected with that place makes logical sense if we want to prevent crime. By collaborating with these connected entities, the researcher in this study gathered the information required to complement the findings from the literature and from the Logan hot spot experiment to form a comprehensive framework that guides the implementation of future hot spot policing in the QPS. There is a gap in the literature regarding the effective implementation of hot spot strategies, suggesting that a collaborative approach will enhance the outcomes of preventing crime in these places. Represented as Figure 2.1, the conceptual model illustrates the relationship among the key variables relevant to the production of a QPS Crime Hot Spot Policing Framework. Explained in simple terms: people and the environment make up and influence a crime hot spot. Multiple areas in policing, including frontline officers in all policing regions and specialist units, and subject experts, including academic researchers and other policing organisations who and that have conducted work in this area, are all vital sources of information and knowledge. Through collaboration, involving these key groups, on the issues presented by the crime hot spots, it is assumed that meaningful, relevant information and valuable contributions will be generated, and will therefore positively influence and inform a comprehensive framework to guide police through the successful implementation of hot spot policing. Based on the available literature and evidence, the following conceptual model for the development of a crime hot spot policing framework is shown in Figure 2.1.

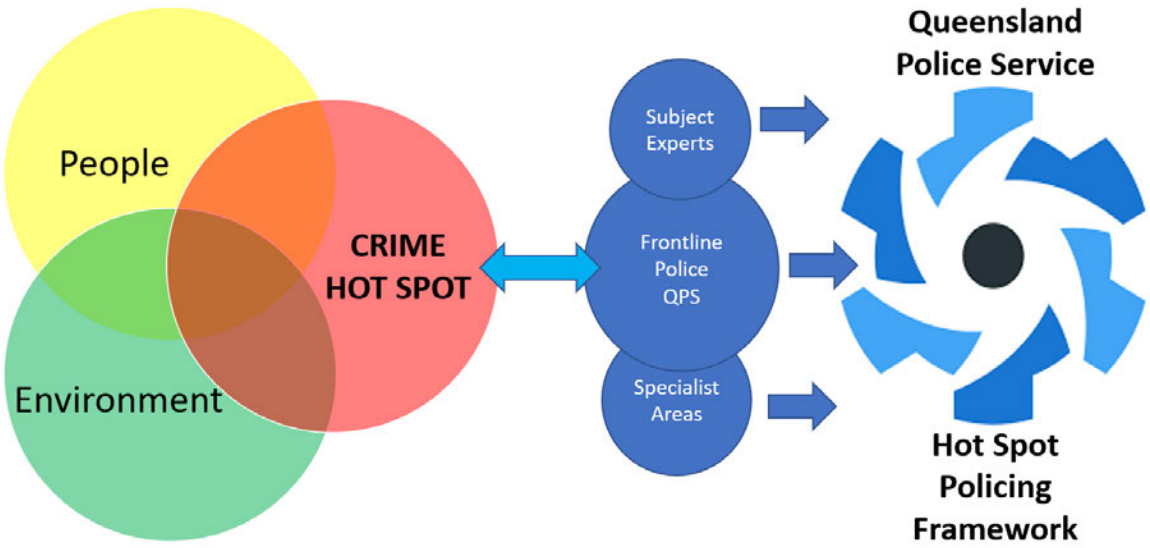


Figure 2.1 Conceptual model of crime hot spot policing.

CHAPTER THREE: THE LOGAN HOT SPOT EXPERIMENT

Please note, the 'Logan Hot Spot Experiment' has not been published widely. The Executive Summary (Ready and Thomson 2021) outlining the experiment was written by Associate Professor Ready and the researcher and show cased within the QPS only. The researcher acknowledges the contribution of Associate Professor Ready for the content of Chapter 3.

3.1 Background

The Logan hot spot experiment, also known as Operation Revelstoke, was conducted by the researcher with support from Griffith University to apply an innovative Intelligence-Led Policing strategy to persistent crime hot spots in the Logan policing district. This hot spot policing experiment was built on the premise that police resources, such as patrol, could be used more efficiently to reduce crime by directing frontline officers and tactical operations to locations where crime is disproportionately concentrated. The research team consisted of: Senior Sergeant Emma Thomson; Associate Professor Justin Ready who guided the planning and evaluation of the operation; and Logan District Intelligence Analyst Senior Constable Murray Ives (QPS), who provided data and analytic support. Owing to the sensitivity of the findings, the details of the hot spot locations were broad as the purpose of the work was focused on the methodology and application of the findings. The study: 1) reviewed the literature that serves as the guiding framework for Operation Revelstoke; 2) discussed the methods used to implement and assess the impact of Operation Revelstoke; 3) presented research findings on crime incidents (QPRIME) and calls for service (QCAD – Queensland Computer Aided Dispatch) occurring in treatment and control areas during the study period; and 4) concluded with recommendations for integrating this strategy into 'Business as usual' (BAU) for frontline units across the QPS.

3.2 Method

The first stage in planning the operation was to examine QPRIME (Queensland Police Records and Information Management Exchange) data from the Logan policing district and LEAP (Law Enforcement Assistance Program) data from the South Metro Region, Victoria to determine the extent to which crime concentrates at street segments in Australia. The LEAP data was used due to the accessibility of the data and comparability to Logan. Ready analysed data from two jurisdictions to provide a reliability check on QPS data, and to improve the ability to generalise the research findings to other jurisdictions. For the Logan hot spot experiment, a street segment was defined as a length of street between two consecutive street intersections, including both sides of the street (i.e., block faces). The analysis focused on three crime categories which included violent/person-on-person, public order, and vehicle-related crimes. These categories were selected because they were consistent with the strategic priorities and operational focus of the TCS. Domestic violence crime types were not selected for this experiment because the focus was placed on crimes occurring in public spaces.

Crimes occurring over a two-year period were geocoded (process of determining geographic coordinates) and aggregated to street segments in the two jurisdictions. The researcher's examined one year of data before the COVID-19 pandemic and one year after it to control for potential period effects. The findings about spatial clustering were noteworthy. Fewer than 1 percent (0.7%) of street segments produced 22% of all crimes in both jurisdictions, and fewer than 5% of street segments accounted for 50% of all crimes. Remarkably, 63% of street segments did not produce one serious crime over the study period.

The second stage of planning was to develop criteria for identifying street segments as crime hot spots. These criteria included: 1) 20 or more QPRIME incidents occurring on the street segment within a one-year period; 2) 20 or more calls for service (QCAD) occurring on the street segment within a one-year period; 3) crime and QCAD incidents occurring on the street segment in half of all fortnights of the year to show that crime was stable; and 4) street segments containing a facility or a public service that artificially inflated the crime count (e.g., hospital or police facility) needed to be removed from the analysis (these places may be used as a default location for geocoded data). Based on the criteria, we identified a total of 41 street segments in the Logan policing district that satisfied the hot spot requirements, and 247 street segments qualified in South Metro Region, Victoria. The proportion of street segments that qualified as hot spots across the two police jurisdictions was notably similar (0.7%), especially when the population of the two areas (335,000 and 1,200,000 respectively) is considered. Hot spot street segments in both jurisdictions produced about 22% of all crimes.

The last stage of planning was to assign randomly the 41 street segments that qualified as hot spots in the Logan policing district to treatment and control conditions. Random assignment to treatment and control groups served two purposes. First, it enabled the TCS and intelligence resources to be focused on only half of the areas, increasing police presence and intelligence capabilities (i.e., dosage) on the street segments where the operation would take place. It also allowed the researchers to generate an “equivalent” control group that would serve as a baseline for comparison purposes. As a result, the evaluation of Operation Revelstoke was designed as a randomised controlled trial (RCT) which is considered the gold standard in evaluation research (Sampson, 2010).

Because the number of street segments that qualified as crime hot spots in the Logan policing district was relatively small (*n* = 41), the researchers used a block randomisation procedure to ensure that random assignment produced two equivalent groups of street segments. Specifically, they matched each street segment that qualified as a hot spot with another one that was identical in terms of crime volume, physical disorder, design/layout and population density. Crime volume was measured based on QPRIME data; the other pieces of information were obtained from systematic observations conducted in each of the hot spots. The research team spent 30 minutes carefully documenting the features of each street segment by walking to multiple viewing areas and coding specific items on the systematic observation survey. The items included indicators of urban blight; signs of disorder such as boarded-up buildings, litter, graffiti, broken windows, drug paraphernalia and abandoned vehicles; structures that attract anti-social behaviour (e.g., bars and bus stops); and the number of residential and non-residential (i.e., commercial) buildings. An identical match was found for 20 of the 41 street segments (10 pairs); the remaining street segments were excluded from the RCT. In the final stage of planning, one hot spot from each pair was randomly allocated to the treatment group and one to the control group. In summary, all 20 street segments qualified as crime hot spots, and the 10 pairs were matched based on identical levels of crime, physical disorder, layout, and population density. After the block random assignment to treatment and control groups was completed, a series of statistical tests was conducted to confirm that the treatment and control areas were equivalent (i.e., comparable in terms of their social and physical characteristics). The t-tests indicated that there were no statistically significant differences between the two groups based on QPRIME crimes, residential buildings,

non-residential (i.e., commercial) buildings, structural disrepair and physical disorder on streets and sidewalks.

3.3 The Operation: Bringing Intelligence-Led Policing to Crime Hot Spots

On a strategic level, Operation Revelstoke: 1) identified 'hot spot' street segments in the Logan policing district that had serious and persistent crime problems; 2) provided ongoing intelligence support to the TCS (i.e., weekly intelligence briefs) for each hot spot; and 3) deployed the TCS to these locations based on new and emerging intelligence (e.g., relating to high-impact offenders, criminal networks, active investigations, warrants and repeat victimisations). On a tactical level, this enabled the TCS to make extended patrol visits to the hot spots (15 minutes, usually out of the vehicle), and to optimise residual deterrence occurring after their departure. While in the areas, the TCS followed up leads, disrupted groups engaging in unlawful behaviour and strengthened social ties with residents and business owners.

During the eight-week intervention period (1 October to 25 November 2019), the TCS conducted a total of 808 extended patrol visits to crime hot spots assigned to the treatment group. It is important to note that no intelligence briefs were provided to the TCS about the hot spots assigned to the control group. These locations were not disclosed to the TCS. However, general duties officers responded to QCAD jobs and maintained the same patrol presence in the control areas. It was business as usual in those locations, which served as the baseline for the analysis that followed.

3.4 Findings

Crime incidents occurring during and after the implementation of Operation Revelstoke were examined. Specifically, the analysis compared street segments in

the treatment group to those in the control group, as well as all the other street segments in the Logan policing district. The analysis focused on the QPRIME categories that were specifically targeted by the operation, including violent, public order and vehicle-related crimes. The findings showed a 23.2% reduction in crime incidents occurring in the treatment areas compared to a 50% increase in crime incidents occurring in the control areas, and a 36.6% increase in crime across the entire district. Bringing intelligence-led policing to crime hot spots appeared to have a significant lagged effect on crime in the treatment areas. The delayed effect may be explained by the uptake time required to develop and integrate location-specific intelligence into TCS's daily operations (i.e., business as usual). As a reliability check on the findings, the research team replicated the analysis using all the QPRIME crime categories. The short length of the intervention and post-intervention periods could potentially create instability in the data when examining only a narrow range of QPRIME categories.

A similar pattern of research findings transpired when all QPRIME crime categories were considered. While there was a 16.3% reduction in all crimes occurring in hot spots treated by the TCS as part of Operation Revelstoke, the control and district-wide trends revealed a 20.4% and 29.5% increase in crime respectively. In short, the intelligence-led operation in the Logan policing district resulted in a 16-23% drop in crime at micro-locations, with slightly larger effects for serious crime. The upward trends occurring both district-wide and in the comparison hot spots suggested that a similar trend was likely to have occurred in the treatment areas without the introduction of Operation Revelstoke. It is worth noting that a 16.7% increase in QCAD calls for service in the treatment areas was observed compared to a relatively stable volume of calls in the control and district-wide areas (–5.6% and 3.3%

respectively). This increase in calls to the police after the implementation of Operation Revelstoke may be a reasonably expected by-product of greater police presence and, perhaps, confidence in the police in the treatment areas. Ready conducted a two-way analysis of variance (ANOVA), providing a significance test examining the effects of the intervention independent of any period effects. The treatment effects observed suggested that it was highly unlikely ($p < .0001$) that the findings could be explained by random chance or sampling bias. In other words, the effects of Operation Revelstoke were statistically significant after controlling for district-level fluctuations in crime.

3.5 Recommendations and Significance

First, the Logan hot spot experiment provided ample capacity to upscale intelligence-led policing at micro-locations through its replication within the QPS and other police jurisdictions. Relatedly, consideration should be given to utilising the District Tasking and Coordination Centre's (DTACC) located in some policing districts in the QPS as a promising platform for sharing location-specific intelligence with frontline units, and for creating a uniform process that delivers real-time information to these units and makes optimal use of their discretionary time. Considering further analysis of street segment level data to understand better the crime types and their concentration at micro-locations would guide more specific prevention strategies. The creation and utilisation of custom-built data driven dashboards to streamline the analysis process and to simplify identification and reporting of crime hot spots would significantly cut workload and enhance the effectiveness of this strategy. This may contribute to better situational awareness for frontline units and capacity for joint initiatives with other agencies and the community. A significant realisation from the Logan hot spot experiment was the importance of the coordinating officer role for both the initial

implementation of the crime hot spot policing strategy and its ongoing management. This role proved vital for ensuring the ongoing targeting and recording of efforts at crime hot spots. The researcher has considered the recommendations and learnings from the Logan hot spot experiment and used this information to contribute to the research questions for this study, and specifically to inform the content of the survey instrument.

CHAPTER FOUR: METHODOLOGY

4.1 Research Paradigm

The researcher utilised the Professional Studies Program – Master of Professional Studies (Research) offered by the University of Southern Queensland, Australia as a structured opportunity to use the workplace, the Queensland Police Service, as a source of learning and professional and personal development. In doing so, the researcher collected relevant evidence to answer the research questions that formed the basis of the project. Combining work-based skills and knowledge with research, the researcher aimed to achieve the "triple dividend" defined by Fergusson, Allred and Dux (2018) as being "designed to benefit the individual researcher, work environment, and community of practice".

Pragmatism was the research paradigm used for this study as it is not committed to any one system of philosophy or reality, and it focuses on the 'what' and 'how' of the research problem (Mackenzie and Knipe 2006). The application of this research paradigm was used to evaluate theories, beliefs and knowledge using a collaborative, problem-solving approach, based in a real-world setting, to inform the practical implementation of hot spot policing to prevent crime. The research methodology used in this cross-sectional study was exploratory, using a quantitative method aimed at gaining in-depth insights and understanding combined with multiple sources of information and perspectives to answer the research questions: "What is an effective framework for hot spot policing that increases QPS efficiency in reducing the incidence of crime in a policing district; and What steps are required to create capacity and strategic resourcing for effective hot spot policing in the QPS?"

4.2 Method

To answer these questions, the researcher divided the project into seven steps. Some of these steps were planned and others occurred because of competing workplace demands and decisions made outside the researcher's control. Of note, prior to commencing the research project, the researcher had finalised the planning, coordination and implementation of the Logan hot spot experiment and commenced the evaluation.

Step one: The researcher commenced the research project by conducting a literature review to enhance professional knowledge and to increase understanding around hot spot policing.

Step two: The researcher utilised this knowledge when collaborating with Associate Professor Ready to analyse data from the Logan hot spot experiment and to co-author the Executive Summary – Bringing Intelligence-Led Policing to Crime Hot Spots: The Logan Experiment (Ready and Thomson 2021).

Step three: The researcher presented the findings of the Logan hot spot experiment to the QPS Executive Leadership Team, resulting in endorsement to expand and implement the Micro Crime Hot Spot Strategy throughout the QPS. The researcher was appointed the project manager for the implementation of the strategy in June 2021 and spent the first three months planning and engaging with stakeholders.

Step four: The researcher combined the literature review, the findings from the Logan hot spot experiment and the learnings from the project manager appointment to construct the survey instrument used for the quantitative component of this research.

Step five: The researcher presented the findings from the Logan hot spot experiment in numerous locations throughout the QPS to educate and discuss future

implementation of the strategy in different policing districts. This process gave the experienced police, faced with combating crime in a policing district, an insight into crime hot spot policing.

Step six: The researcher used the audience from the presentations, the “natural setting” (Creswell 2009) to have face-to-face interactions with QPS participants before inviting them to take part in the survey. The participants from outside the QPS were selected and invited to take part in the survey based on their knowledge and experience with hot spot policing or similar. All participants received an explanatory email from the researcher with a link to the survey inviting participation online. The surveys were sent between September and December 2021.

Step seven: Analysis of the data from the surveys was conducted between January and June 2022.

4.3 Research Design

Using a quantitative research design for this study, the researcher constructed a survey inclusive of both closed and open-ended questions for the collection of data suitable for all participants to aid in creating a comprehensive, holistically informed framework for hot spot policing. The researcher chose a quantitative design to attain greater knowledge and understanding of hot spot policing from people that work in a policing environment and/or have experience in the field. This method of research produced numeric data that allowed the researcher to communicate findings through descriptive and inferential statistics. The USQ survey tool was used by the researcher to build the survey instrument. The instrument was used for asking questions, recording answers, and sorting and displaying results. The researcher also used Microsoft Excel to sort and categorise data into meaningful variables (11) and to conduct further analysis using computational techniques to identify significant

relationships and differences between variables and individual survey questions. The output served as the basis for making inferences from the study. The researcher documented information and learnings as the research progressed.

4.4 Survey Instrument

The survey instrument (Appendix two) was designed by the researcher to explore reflective capacity and opinions of experienced officers and academic/experts in the field regarding the targeting of persistent crime and public order issues at crime hot spots and the management and allocation of resources for that purpose. The researcher believed that the collective input from both experienced officers and academic/experts in the field was important. Giving QPS members a voice and the opportunity to participate actively in the dialogue around how to adopt this approach and how discretionary time and resources should be best used in the field was seen by the researcher as crucial for the successful implementation of hot spot policing in the future. The survey provided the platform for this to happen.

The survey was developed to understand better the opinions about this location-based tasking approach, and how opinions may vary by knowledge, experience, and whether the participants were from the QPS or were an academic/expert in the field. The survey took approximately 15 minutes to complete and asked participants to consider a future in which strategic resources, crime intelligence and officer discretionary time were used on a wide scale to address micro-locations with persistent crime problems. Participation in the survey was voluntary and the names of individual persons were not required in any of the responses.

The researcher constructed the survey by drawing on relevant literature, the Logan hot spot experiment and extensive policing experience. Using the “three-Ps”

principle, outlined in the introduction of this thesis, the researcher constructed 23 questions that were separated into four categories: people; procedures (also referred to as processes); products; and background characteristics. The researcher organised the survey in this way because it provided a logical process in which to generate value from knowledge to create an effective framework. Goh (2005) suggests that knowledge adds value to an organisation through its contribution to people, processes and products and therefore, organisations that are able to capitalise on the opportunities arising from these different types of knowledge-based assets can transform it into knowledge capital to achieve organisational outcomes. The “three Ps” principle was relevant to the researcher because it was important to look at an integrated approach to knowledge management (Goh 2005). The knowledge in people, including the skills, attributes and experiences; the knowledge in procedures, being the sharing of best practices and strategies in hot spot policing; and the knowledge in products such as an operational framework and intelligence data, all contribute to creating a knowledge sharing product or tool, in the present case, a framework to support hot spot policing.

Within the four themes the researcher developed 11 meaningful variables from the 23 questions; the role of the coordinator (VA), the groups to be involved in targeting crime hot spots (VB), suitable external agencies to be involved in targeting crime hot spots (VC), effective training methods to teach the crime hot spot strategies (VD), effective tactics for reducing crime in hot spots (VE), effective environments for crime hot spot policing (VF), challenges of integrating crime hot spot policing into a policing service (VG), the importance of a framework (VH), the participants current role (VI), the participants level of crime hot spot knowledge (VJ) and the participants previous involvement in crime hot spot policing (VK).

The survey themes, questions and variables are outlined in detail below:

1) People: Four questions (Q1 to Q4) sought to establish who should be involved in targeting crime in micro-crime hot spots, and more specifically the characteristics of the person required to coordinate crime hot spot policing in a police district. A 5-point Likert scale was used for three of the four questions to collect the participants' attitudes and opinions about this theme, with a multiple-choice question being utilised to gather views on which external agencies are ideally suited for the implementation of proactive strategies in crime hot spots. Question one (Q1) asked participants about the importance of five separate characteristics for a crime hot spot coordinator providing the researcher with data on each attribute. Each attribute was given a letter from (a) to (e) of question one. In the results section this is represented as follows: Q1(a) individuals rank; Q1(b) coordinating experience; Q1(c) influence among peers; Q1(d) personality (natural leadership); and Q1(e) current role. Variable one (VA), titled 'Role of Coordinator', was calculated from the average of all scores for the five characteristics from question one.

   Question two (Q2) asked participants what groups should be involved in activities/strategies to reduce crime at micro locations. There were eight groups to consider with the participants asked to score how often these groups should be involved. Each group was given a letter from (a) to (h) of question two. In the results section this is represented as follows: Q2(a) crime prevention units; Q2(b) tactical/disruption units; Q2(c) investigative units; Q2(d) general duties/first response units; Q2(e) alternate response units(inquiries); Q2(f) any frontline unit with discretionary time; Q2(g) other government agencies; and Q2(h) community or neighbourhood groups.

Variable two (VB), titled ‘Groups to be involved’, was calculated from the average of all scores for the eight groups from question two.

Question three (Q3) asked participants how important it was to involve external agencies to implement proactive strategies in identified crime hot spots.

Question four (Q4) asked which external agencies were ideally suited, or not, for implementation of proactive strategies in identified crime hot spots. There were 11 external agencies to the QPS for participants to answer, ‘yes’ or ‘no’. For the results chapter, these options were represented as follows: Q4(a) Child/Youth justice; Q4(b) Housing; Q4(c) Corrective services; Q4(d) Education; Q4(e) Health; Q4(f) Local Council; Q4(g) Seniors/Disability; Q4(h)Transport; Q4(i) Support/referral services; Q4(j) Community groups; and Q4(k) Elders/Cultural leaders. Variable three (VC), titled ‘Suitable external agencies’, was calculated from the average of all scores for the 11 listed agencies from question four.

2) Procedures: Five questions in this section of the survey (Q5 to Q9) sought to gather insights on what should be done in crime hot spots and how this should be accomplished. A ranking scale was used for question five (Q5) to ask specifically how people should be allocated tasks related to crime hot spots. The researcher took into consideration that the QPS does have some existing methods in place to task officers including District Tasking and Coordination Centres (DTACC) and QLiTE (iPad) devices with GPS location specifications. A DTACC in the QPS ensures strategic and operational planning for a policing district through resource allocation, planning and

control of activities. The QPS QLiTE device provides access to real time information in the field for frontline officers.

The researcher used a 5-point Likert scale for the remaining questions (Q6 to Q9) to gather opinions on procedures for crime hot spot policing.

Question six (Q6) asked participants to indicate the effectiveness of six educational/training methods in guiding and implementing strategies such as crime hot spot policing. The six training methods were represented as follows: Q6(a) face to face classroom; Q6(b) online interactive video; Q6(c) online no interaction; Q6(d) email and text; Q6(e) SharePoint/Workplace platform; and Q6(f) one on one. Variable four (VD), titled ‘Effective training methods’, was calculated from the average of all scores for the six listed training methods from question six.

Question seven (Q7) asked participants their opinion on the effectiveness of eleven tactics/approaches for reducing crime in persistent hot spot locations. The 11 approaches are represented in the results as follows: Q7(a) directed patrols to crime hot spots for 10-15 minutes, without getting out of vehicle; Q7(b) directed patrols to crime hot spots for 10-15 minutes, getting out of vehicle; Q7(c) engaging with residents and businesses to build trust and identify problems; Q7(d) targeting persistent and prolific offenders who are known to spend time in crime hot spots; Q7(e) tracking the amount of time that frontline officers spend in crime hot spots; Q7(f) identifying repeat victims and developing strategies to reduce repeat victimisation; Q7(g) executing warrants and completing open investigations; Q7(h) using covert intelligence, such as surveillance and informants to target offenders associated with crime hot spots; Q7(i) traffic enforcement in crime hot spots; Q7(j) consulting and

engaging with external agencies to develop third-party policing initiatives; and Q7(k) crime prevention through environmental design. Variable five (VE), titled ‘Effective tactics for reducing crime in hot spots’, was calculated from the average of all scores for the eleven listed tactics/approaches from question seven.

Question eight (Q8) asked participants to advise on the effectiveness of five different environments or settings for crime hot spot policing. The five environments were represented as follows: Q8(a) residential; Q8(b) commercial or industrial; Q8(c) rural; Q8(d) entertainment and recreational; and Q8(e) urban and town. Variable six (VF), titled ‘Effective environments for crime hot spot policing’, was calculated from the average of all scores for the five listed environments from question eight.

Question nine (Q9) asked participants how challenging it would be to integrate a crime hot spot focus into business-as-usual policing in the QPS. The participants were asked to rate the difficulty of nine separate tasks which were represented in the results section as follows: Q9(a) getting frontline officers to complete crime hot spot tactics on the ground; Q9(b) influencing mid-level police managers to engage crime hot spot strategies; Q9(c) developing a location-based tasking system that would complement and not detract from the existing offender-based tasking system; Q9(d) measuring police officer time spent in crime hot spot locations; Q9(e) strategic planning around selection criteria and identifying micro crime hot spots; Q9(f) allocating discretionary resources to crime hot spots; Q9(g) collaborating with external agencies who have an interest in improving high-crime areas; Q9(h) operational decision-making around what tactics to take in crime hot spots;

and Q9(i) evaluating the effectiveness of hot spot policing. Variable seven (VG), titled ‘Challenges of integrating crime hot spot policing’, was calculated from the average of all scores for the nine listed challenges from question nine.

3) Products: These four questions (Q10 to Q13) investigated the types of tools and products required to support the efficient and effective use of crime hot spot policing. Again, a Likert scale was used to explore the views of participants to cover the flexibility of a policing framework, the importance of collecting environmental data and the importance of conducting community satisfaction surveys. Participants were also asked to choose the top four products that they deemed most useful for identifying and prioritising micro crime hot spots.

   Question ten (Q10) asked the participants how important it is to develop an operational framework for a policing district that is flexible, so it suits the district’s crime environment and workforce capacity. Given the importance of this question to the overall study, question ten was represented in the results as variable eight (VH) – Importance of a framework.

   Question eleven (Q11) asked participants how important it is to observe and document the environmental conditions (physical and social) in crime hot spots to aid the formation of suitable crime prevention strategies.

   Question twelve (Q12) asked participants what information would be most useful to police districts to assist in identifying and prioritising crime hot spots for targeting. The participants were asked to choose their top four from a list of eight. The information options were represented as follows: Q12(a) guidelines for data analysis; Q12(b) access to state level data; Q12(c)

dashboard/tool for prioritising crime hot spots; Q12(d) access to district level data; Q12(e) mapping tool showing crime concentration; Q12(f) crime-specific location analysis; Q12(g) analysis of stability/persistence of crime at each location; and Q12(h) real-time crime hot spot analysis.

Question thirteen (Q13) asked participants about the importance of conducting community satisfaction surveys in crime hot spot locations.

4) Background characteristics: These short answer and multiple-choice questions (Q14 to Q23) addressed participants' education level (Q14); and category of participant, being either academic/expert, QPS or another policing organisation (Q15). Given the importance of this question to the overall study, Q15 was represented in the results as variable nine (VI) - Participant role. Further questions included in the background characteristics were; policing rank or title (Q16); if QPS, location of appointment (Q17); policing function (Q18); years of service (Q19); institution or organisation if not police (Q20); and policing organisation (Q21). Prior knowledge in the field of crime hot spot policing (Q22) was also seen as a significant question for the study and is represented as variable ten (VJ). Previous involvement in crime hot spot policing (Q23) was represented as follows: Q23(a) involved in conducting research or evaluating the effects of crime hot spot policing; Q23(b) involved in the implementation of crime hot spot policing at a tactical or operational level; Q23(c) involved in the implementation of crime hot spot policing at a strategic planning level; and Q23(d) no previous involvement in crime hot spot policing. Variable 11 (VK), titled 'Previous involvement in crime hot spot policing', was calculated from the average of all scores for the four listed levels of involvement from Q23. This background characteristics theme was

added to obtain data to facilitate comparing the differences and correlations between the opinions of participants within the QPS to those external to the QPS.

4.5 Participants

Participants in the survey were from both within and external to the QPS. Participants were selected based on one or both of the following: 1) The participant was likely to play a role in the implementation of a crime hot spot policing in the QPS; and 2) The participant, through experience and knowledge, could provide expert advice on hot spot policing. The first group of participants came from the QPS and included persons from specific areas of the organisation. These specific areas traversed intelligence and data analytics, frontline policing, including uniform patrol and first response, tactical, investigative, community, road safety, domestic violence, crime prevention and child protection. The rationale behind including this range of QPS participants was to inform a broad insight, drawing from extensive experience in the practice of policing in specific and unique environments, and to create interest, investment and ‘buy-in’ for the strategy’s implementation state-wide. The QPS participants who chose to take part in the survey consisted of staff officers and police officers from the rank of Senior Constable to Chief Superintendent. The second group of participants came from areas external to the QPS, in Australia, the United Kingdom and the United States of America, and included academics with specific knowledge in the area of hot spot policing research and other officers from policing organisations who had experience with similar concepts. The information, opinions and perspectives gathered from these cohorts provided crucial data allowing the formation of a framework that was both specific to policing districts in Queensland and flexible for unique policing environments with different resourcing capabilities

and crime priorities. It was anticipated that the total number of participants would range from 20 to 50, with 20 to 40 participants to be drawn from the QPS, and 5 to 10 from academics and other policing organisations in Australia and internationally. This number was dependent on the participants' uptake of the survey. The researcher sent the survey to a total of 82 participants across the two groups: 70 within the QPS; and 12 externally. There were 15 participants from the QPS and 6 academic/experts who completed the survey.

4.6 Data Analysis

Data analysis for this research involved three steps. The data collected were firstly analysed within the three separate themes of people, procedures, and products, which looked at the who, what, how, why and where of hot spot policing in the QPS. The researcher calculated descriptive statistics, including measures of frequency (percentages), central tendency (mean), and variance (standard deviation) to describe and summarise features from the collected data. These measures were computed for each question and the 11 variables (VA-VK). The 11 variables were established to represent the information contained in several questions asked of the participants that consisted of numerous sub-questions. Secondly, the researcher calculated Pearson's product moment correlation coefficients (r) to determine whether two variables or questions were correlated. This was done firstly within each of the themes (i.e., people, procedures, products) before comparing the association of variables and selected questions across the themes including background characteristics to determine whether operational policing experience differed from specific content and research experience in terms of opinions. Analytical and critical thinking skills were applied to identify common themes and relationships within the responses of the different sample groups concerning the specified themes which

assisted the researcher in choosing relevant correlations central to answering the research questions. The themes and associated correlations appear as the major finding of the study, with the interpretation of the data being captured in the crime hot spot policing framework (step 3).

Cronbach's Alpha, measuring the internal consistency of the survey, range between 0 and 1.0, with higher values indicating survey questions are internally consistent with one another. The researcher measured the overall reflective capacity and opinions of experienced officers and academic/experts in the field regarding the targeting of crime at hot spots. The 74 items of the survey yielded a Cronbach's Alpha of $\alpha = .86$. A Cronbach's Alpha of $\alpha > 0.80$ is considered an acceptable level of reliability, and therefore the researcher has concluded that there is generally an acceptable level of consistency between survey questions.

Using statistical program SPSS v.7, findings were analysed at the 95% confidence interval with a probability value less than or equal to 0.05 taken to be statistically significant.

4.7 Limitations

One limitation of this study was methodological scope. Owing to limited resources and time constraints, the study confined its research design to a single phase and a single research method rather than the mixed method approach usually applied in a research study of this kind. However, to address this limitation and add depth to this project the researcher used the quantitative findings from the Logan hot spot experiment to inform this study adding significant value to understanding crime hot spot policing in the QPS.

Covid-19 impacted significantly on the research project. The researcher was restricted in travel and engagement opportunities throughout the QPS limiting the ability to communicate with people (potential participants) and to gather data. This limited the pool in which to invite QPS participants to take part in the study resulting in a low number of QPS participants. The researcher performed multiple policing roles throughout the duration of the project that impacted on the ability to have continual focus on the research, thereby slowing the progress of the study.

4.8 Ethical Considerations

Before collecting any data, the researcher obtained a Research Ethics Clearance from the University of Southern Queensland (H21REA148) and the QPS. There were ethical considerations for the QPS as an organisation, USQ as a university and the community in conducting the study. Protecting the privacy of participants was paramount. All participants were provided with an explanation of which data were being collected, how the data would be used and how the researcher was obtaining informed consent. Careful consideration was given to the identity component of the survey to ensure this characteristic was not shown in the results.

CHAPTER FIVE: RESULTS

The first section of the results shows the relationships between the 11 identified variables outlined in Chapter 4. The remainder of the results are organised and explained using the four themes of people, procedures, products and background characteristics.

5.1 Variables

The following 11 variables were identified by the researcher as being meaningful in answering the research questions: 1) the role of the coordinator (VA); 2) the groups to be involved in targeting crime hot spots (VB); 3) suitable external agencies to be involved in targeting crime hot spots (VC); 4) effective training methods to teach the crime hot spot strategies (VD); 5) effective tactics for reducing crime in hot spots (VE); 6) effective environments for crime hot spot policing (VF); 7) challenges of integrating crime hot spot policing into a policing service (VG); 8) the importance of a framework (VH); 9) the participants current role (VI); 10) the participants level of crime hot spot knowledge (VJ); and 11) the participants previous involvement in crime hot spot policing (VK). A Pearson's product moment correlation coefficient (*r*) was computed to assess the linear relationship between the 11 variables shown in Figure 5.1.

	VA Role of Coordinator	*VB*	*VC*	*VD*	*VE*	*VF*	*VG*	*VH (Q10)*	*VI(Q15)*	*VJ(Q22)*
VB Groups to be Involved	-0.03									
VC Suitable external agencies	0.06	0.41								
VD Effective training methods	-0.11	-0.20	-0.22							
VE Effective tactics for reducing crime in hot spots	-0.02	0.57	0.51	0.01						
VF Effective environemnts for crime hot spot policing	-0.04	0.36	0.34	0.35	0.57					
VG Challenges of integrating crime hot spot policing	0.21	0.19	-0.20	0.39	0.02	0.36				
VH (Q10) Importance of a Framework	-0.08	0.17	-0.04	-0.18	0.08	-0.11	0.05			
VI (Q15) Participant role	-0.14	0.06	0.04	0.02	-0.08	0.55	0.22	-0.07		
VJ (Q22) Level of Crime Hot spot knowledge	-0.25	0.14	0.14	0.16	-0.04	0.45	0.30	-0.15	0.59	
VK Previous involment in Crime Hot Spot Policing	-0.32	0.17	0.45	-0.17	-0.01	0.29	0.02	-0.33	0.38	0.51

Figure 5.1. Correlation matrix for all variables 1 (VA) through to 11 (VK).

Findings highlighted in red are statistically significant correlations the researcher will reference. There was a positive correlation *r* = .57 found between effective tactics for reducing crime in hot spots (VE) and suitable external agencies (VB). Effective tactics for reducing crime in hot spots (VE) was also positively correlated *r* = .51 with effective training methods (VC). Effective training methods (VC) was also positively correlated *r* = .45 with previous involvement in crime hot spot policing (VK). Having previous involvement in crime hot spot policing (VK) was positively correlated *r* = .51 with level of crime hot spot knowledge (VJ). Effective environments for crime hot spot policing (VF) was positively correlated with three other variables: participant role (VI) *r* = .55, level of crime hot spot knowledge (VJ) *r* = .45 and effective tactics for reducing crime in hot spots *r* = .57. Participant role (VI) and level of crime hot spot knowledge (VJ) were positively correlated with *r* = .59. The researcher found no significant correlations between the variables of, challenges of integrating crime hot spot policing (VG) and the importance of a framework (VH).

5.2 People

The researcher viewed it as critical that the right people were doing the right roles when executing the crime hot spot strategy in a policing district. These people include the police and the different sections and units within the organisation, other external agencies, both government and non-government and importantly, the community. A significant realisation for the researcher from the Logan hot spot experiment was the importance of the coordinating officer role for both the initial implementation of the strategy and the ongoing management. This role proved vital for ensuring the ongoing targeting and recording of efforts at crime hot spots, so the researcher asked the participants questions specifically around this role. Figure 5.2 shows the participants' responses across the five characteristics indicating how

important each factor was deemed when identifying a person for the role of hot spot coordinator.

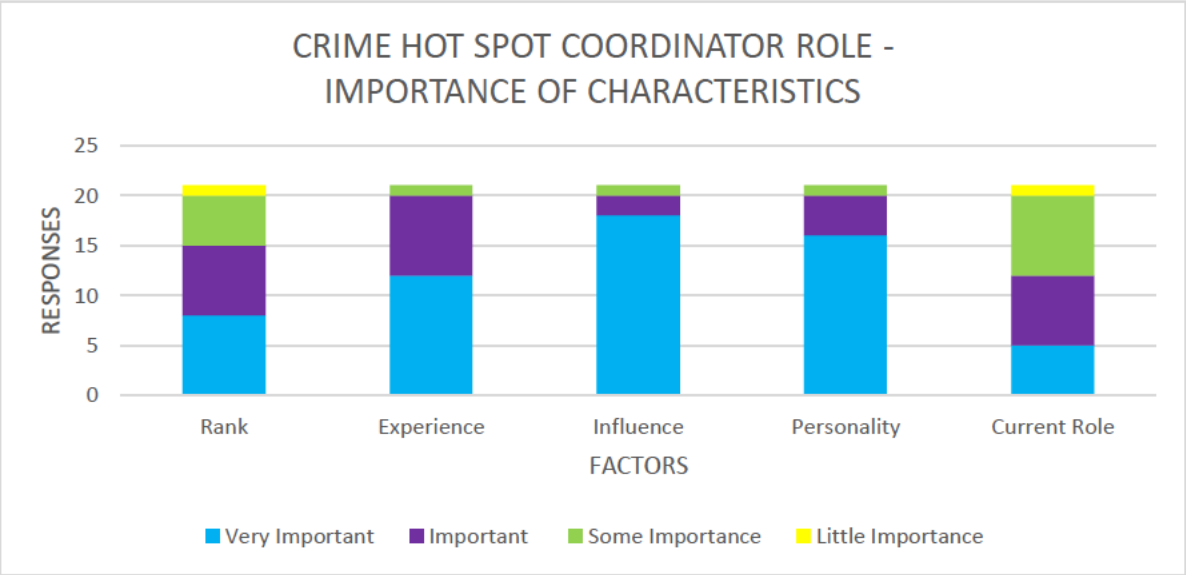


Figure 5.2. Descriptive findings (number of responses) important characteristics of crime hot spot coordinator.

The participants were asked to advise on the importance of five characteristics for this role: individual officers' rank, their coordinating experience, their influence among peers (ability to connect), their personality in terms of natural leadership and the current role of the officer. Of the participants, 86% agreed that the individuals influence among peers and their ability to connect were important in identifying and giving responsibility for the coordinating role of hot spot policing. Of the participants, 76% also agreed that personality and natural leadership were important.

A Pearson's correlation coefficient was computed to assess the linear relationship between these two characteristics given they were both deemed important by the participants. There was a strong positive correlation of $r = .85$ between the ability to influence among peers (Q1(c)) and natural leadership (Q1(d)). Coordinating experience (Q1(b)) was also deemed important by most participants showing a

strong positive correlation with the ability to influence among peers (Q1(c)) $r = .67$. The officer's current role Q1(e)) was deemed by the participants as the least important factor with a low degree of correlation with all other characteristics in this group of questions. The two groups of participants provided similar answers to all the questions related to this theme. A Pearson's correlation coefficient was computed to assess the linear relationship between variable one (the role of the crime hot spot coordinator (VA)) and role of participant (Q15)). There was no significant correlation $r = –.18$ between VA and Q15(VI).

The researcher took Lum's (2017) idea to embrace a larger vision of the policing function in crime hot spots, and asked the participants to consider which other persons from both internal and external groups, including the community, should be involved in activities and strategies in crime hot spots. The use of tactical and disruption teams, government agencies, prevention teams and any units with discretionary time scored high across the two groups. Investigation units (Q2(c)) and alternate response units (Q2(e)), also known as inquiries teams, were scored low in terms of their need for involvement in these areas.

As a result of computing a Pearson correlation coefficient of $r = .03$ it was shown there was no correlation between the involvement of investigative units (Q2(c)) and alternate response units (Q2(e)). There is, however, a moderate positive correlation between the involvement of prevention units (Q2(a)) and government agencies such as local council (Q2(g)) with a Pearson's score of $r = .48$. Some 57% of the participants believed that the community should be involved sometimes, with an additional 33% advocating that this group should be involved often. Interestingly, after applying multiple correlation analysis between the groups in this question, the researcher found strong positive correlations between the involvement of community

groups (Q2(h)) and any frontline units that have discretionary time available (Q2(f)) being r = .55 and between community groups (Q2(h)) and government agencies (Q2(g)) r = .64 and a moderate correlation between frontline units that have discretionary time available (Q2(f)) and government agencies (Q2(g)) involvement with r = .43.

Over 90% of the participants agreed that it is important to involve external agencies to implement proactive strategies in identified crime hot spots for preventing crime, with the most ideally suited external agencies for the implementation of proactive strategies being local council, department of housing and child/youth justice. Figure 5.3 shows the reported suitability of external agencies for the implementation of proactive strategies in crime hot spots.

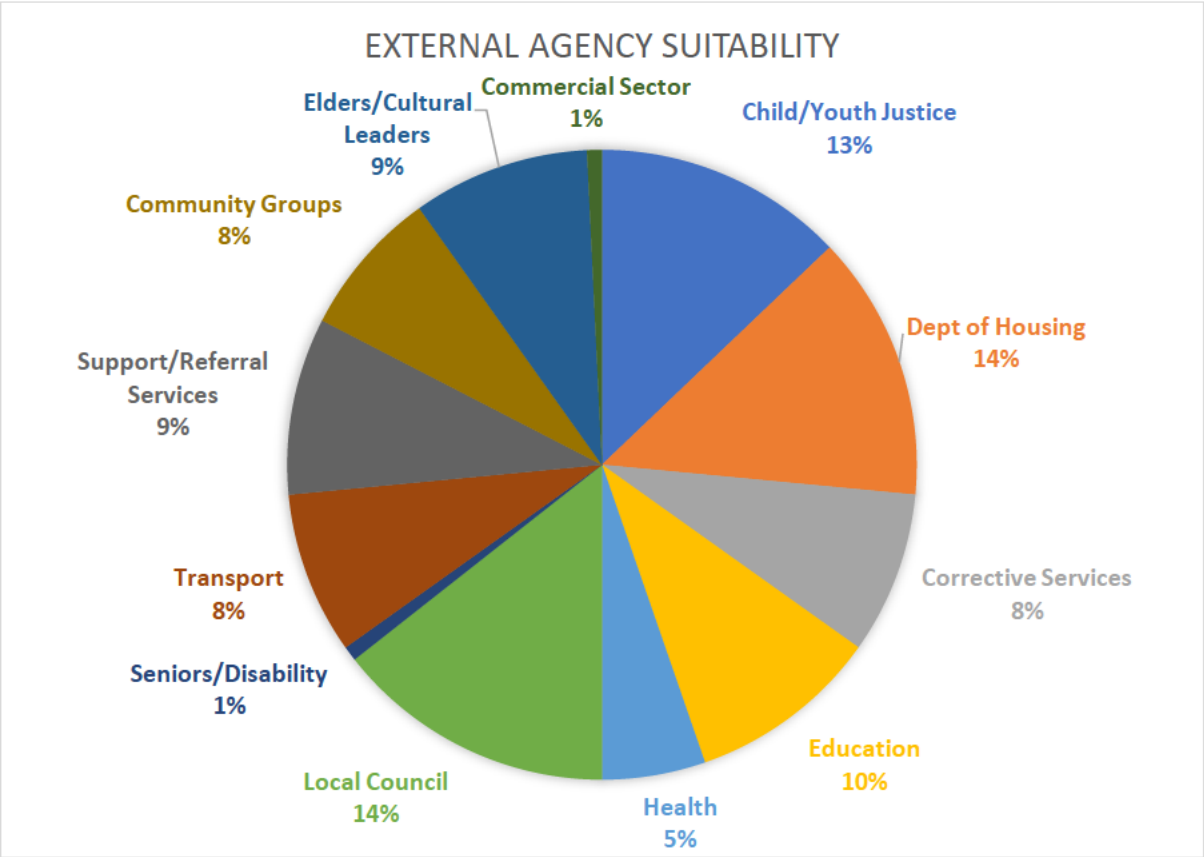


Figure 5.3 Descriptive findings (percentages) associated with suitability of external agency.

A Pearson correlation coefficient was computed to assess the linear relationship between each of these individual agencies and how important it is to involve government agencies in crime hot spot policing in general (Q3). There was a strong positive correlation of r = .56 with the suitability of local council (Q4(f)) only and no significant correlation recorded for the remaining groups with the importance of involving government agencies. Of note, the researcher found a positive correlation of r = .61 between the suitability of support and referral agencies (Q4(i)) in the implementation of crime hot spot policing with the suitability of elders and cultural leaders (Q4(k)). A Pearson correlation coefficient was computed to assess the linear relationship between which groups should be involved in crime hot spot policing (variable two (VB)) and which external agencies are ideally suited to crime hot spot policing (variable three (VC)). There was a moderate positive correlation between the two variables with a value of r = .42.

5.3 Procedures

The current research about hot spot policing implies that a more holistic approach is required when looking at what to do in crime hot spots. This section of results considers what should be done and how the QPS should increase efficiency to reduce the incidence of crime in a policing district. Firstly, the researcher questioned which methods would be most effective in tasking officers to carry out activities in crime hot spot locations. A range of options were provided to the participants to choose from. Interestingly the opinions of the two groups differed with 67% of the external participants (academics/experts) suggesting that the most effective way to task frontline officers to carry out activities/tactics in crime hot spot locations is via a crime hot spot application (App) on an electronic device (GPS location specific), such as the QPS QLiTE compared to only 27% of QPS members. QPS members

(47%) suggested that tasking officers via a communications/tasking centre such as a DTACC, was the most effective way to task officers. Both the QPS and the external participants agreed that it is effective to task directly from the crime hot spot coordinator, and that direct tasking from the officer's line manager in the field can also be effective. Secondly, the researcher sought to gather insights into the effectiveness of education and training methods in preparing officers to implement hot spot policing successfully.

The training methods included classroom face-to-face(Q5(a)), online live video(Q5(b)), online learning package (Q5(c)), email and texts (Q5(d)), SharePoint or Workplace (Q5(e)), and one-on-one training (Q5(f)). The participants were unanimous in their opinions about education and training considering face-to-face classroom training as the most effective method in relation to guiding and implementing strategies. The participants were asked to score on effectiveness from very effective (4) to not effective (1). The average score for face-to-face classroom training was 3.57 with a standard deviation of 0.68. One-on-one training for frontline officers was also regarded as an effective method for training officers in the field with an average score of 3.48 and standard deviation of 0.68. A Pearson correlation coefficient was computed to assess the linear relationship between these two methods of training and whether the participant was QPS or external (Q15(VI)). There was a weak negative correlation of $r = -.23$ between face-to-face training (Q5(a)) and participant group (Q15(VI)) and a weak correlation of $r = .34$ between participant group (Q15(VI)) and the effectiveness of the one-on-one training method (Q5(f)). The participants agreed that emails, text and online learning in general, which included the use of SharePoint and Workplace platforms were not effective.

Pearson correlation coefficients were computed to assess the linear relationship between the remaining training methods with no significate relationships discovered.

Importantly the researcher sought opinions about which tactics and approaches were most effective in reducing crime in micro locations. Using prior policing experience and research in this area (literature review), the researcher developed questions that asked the participants to rank the effectiveness of eleven known crime disruption tactics/approaches that could be used to target crime hot spots. The two groups of participants were united, with 90% advocating the targeting of persistent and prolific offenders who are known to spend time in crime hot spots as the most effective strategy for reducing crime in these locations.

Participants were asked to score the effectiveness of each strategy from being very effective (4) to not effective (1). The average score across all participants for this tactic/approach was 3.9. There were numerous other strategies that were deemed very effective, including: directed patrols to crime hot spots for 10-15 minutes (getting out of the vehicle preferable to staying in the vehicle), average score 3.38; engaging with residents and businesses to build trust and identify problems, average score 3.43; and crime prevention through environmental design, i.e., lighting, rapid repair and changing layout, average score 3.24. Figure 5.4 shows the level of effectiveness for each crime hot spot tactic/approach.

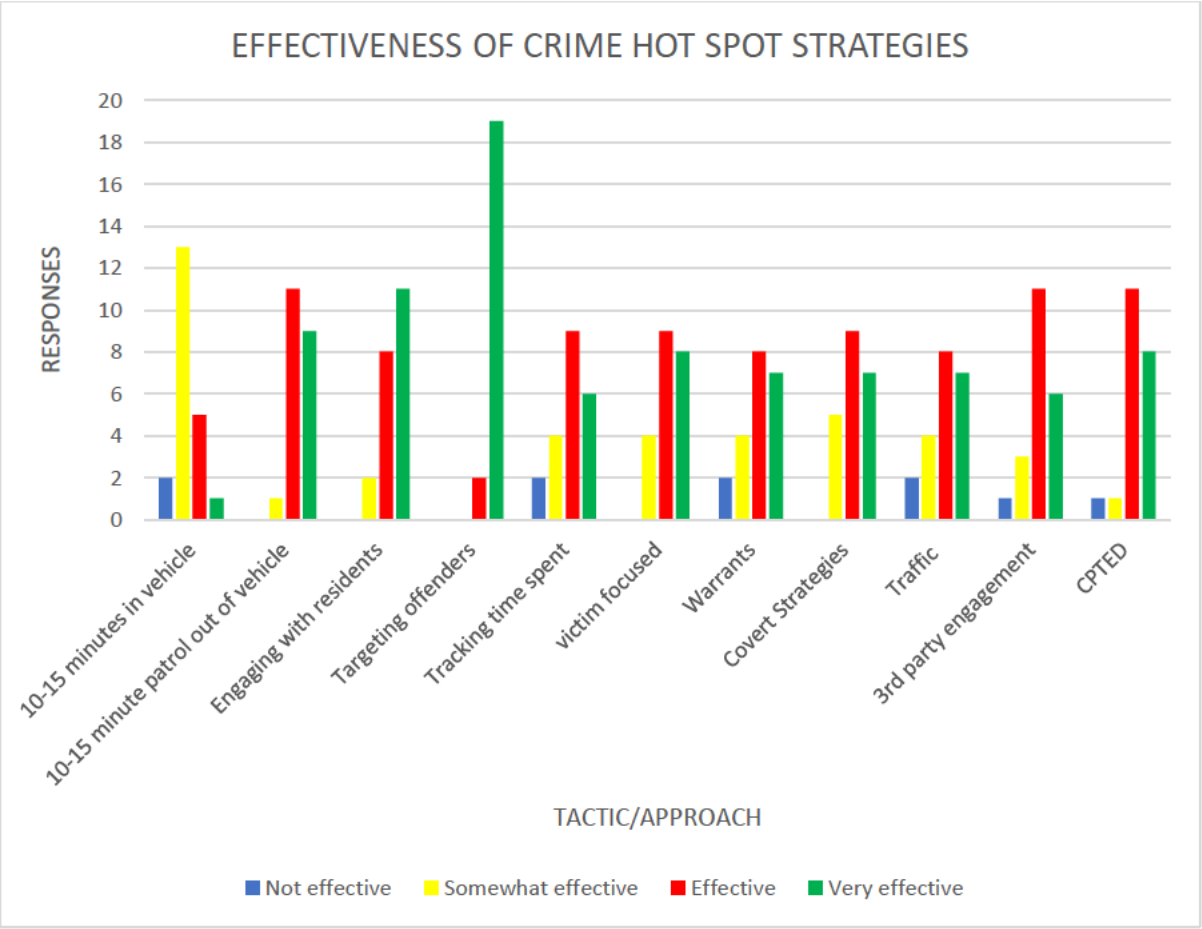


Figure 5.4 Descriptive findings (number of responses) for the effectiveness of crime hot spot strategies.

A Pearson correlation coefficient was computed to assess the linear relationship between all questions relating to the 11 different tactics/approaches. Of interest, strong positive correlations were found to exist between engaging with residents and businesses to build trust and identify problems (Q6(c)) and identifying repeat victims and developing strategies to reduce victimisation (Q6(f)) r = .62 and (Q6(c)) and traffic enforcement in crime hot spots (Q6(i)) r = .64. These tactics/approaches had a combined high average score of 3.19. There was a strong positive correlation between identifying repeat victims and developing strategies to reduce victimisation (Q6(f)), and consulting and engaging with external agencies to develop third-party policing initiatives (Q6(j)) r = .73 and traffic enforcement (Q6(i)) and executing

warrants and completing open investigations (Q6(g)) r = .74. A correlation coefficient of r = .63 also existed between consulting and engaging with external agencies (Q6(j)) and crime prevention through environmental design (Q6(h)). All 11 tactics/approaches were found to be effective by some participants with a collective average score of 3.12.

There is limited research on the types of environments or settings in which crime hot spot policing would be effective. In Queensland, the policing districts range across residential, commercial/ industrial, rural, entertainment/recreational, and urban/town settings. Some districts have all environments in their policing jurisdiction and others have only one or two. The researcher asked the participants, based on their knowledge and experience, which types of environments or settings were most suitable for crime hot spot strategies. The participants were asked to score from very effective (4) to not effective (1). The academics/experts believed that crime hot spot policing would be very effective in commercial/industrial (Q8(b)) and entertainment/recreational (Q8(d)) settings with all participants in this group scoring an average of 4 across both settings.

A Pearson correlation coefficient was computed to assess the linear relationship between these two settings with a strong positive correlation of r = .78 found. Further to this result, a strong positive correlation of r = .69 was found between commercial/industrial (Q8(b)) settings and urban/town (Q8(e)) settings with respect to their suitability for crime hot spot strategies and a strong positive correlation between entertainment/recreational (Q8(d)) and urban/town (Q8(e)) setting suitability with r = .84. The QPS participants believed that crime hot spot policing would be most effective in residential (Q8(a)) settings with an average score of 3.19. There was no significant correlation r = .27 identified between residential (Q8(a)) and urban

town settings(Q8(e)). Of interest though, was the positive correlation r = .49 found between the effectiveness of traffic enforcement in crime hots spots (Q6(i)) and the suitability of residential areas (Q8(a)) for crime hot spot strategies and a strong positive correlation r = .82 found between the effectiveness of identifying repeat victims and developing strategies to reduce victimisation (Q6(f)) and the suitability of residential areas (Q8(a)). A Pearson correlation coefficient was computed to assess the linear relationship between variable five (VE) – effective tactics for reducing crime hot spots and variable six (VF) – the effective environments for hot spot policing resulting in a positive correlation of r = .57. A Pearson correlation coefficient was computed to assess the linear relationship between the effective environments for hot spot policing (VF) and participant group (Q15). There was a positive correlation of r = .55 between these two variables. All participants agreed that crime hot spot policing would be least effective in rural settings (Q8(c)) and effective in urban (town/city) (Q8(e)) environments. A positive correlation of r = .45 was found between these two settings.

During the Logan hot spot experiment, the researcher faced numerous challenges when coordinating the human resources, the tactics and approaches, and the recording of data in the field. The researcher sought the opinions of the participants to gain an in-depth insight into their thoughts on the challenges involved with strategy implementation and ongoing management. The participants agreed that there were numerous challenges that would make the process of implementing crime hot spot policing in the QPS somewhat difficult.

Figure 5.5 indicates how difficult or not difficult certain challenges associated with integrating a crime hot spot focus into business as usual are.

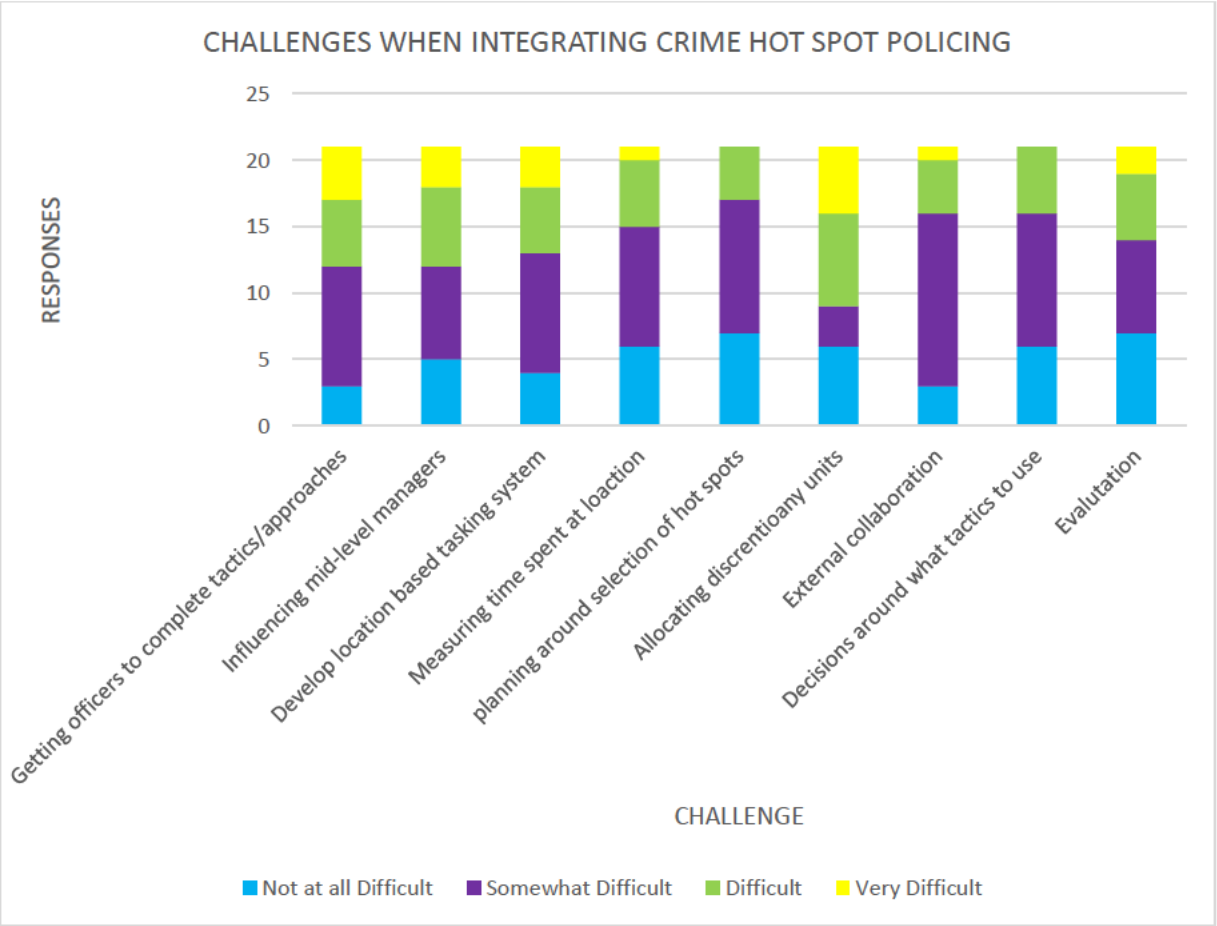


Figure 5.5 Descriptive findings (number of responses) to challenges associated with integrating crime hot spot policing.

Collaborating with external agencies that had an interest in improving high-crime areas(9(g)) was considered the most challenging aspect when integrating a crime hot spot focus into business as usual. A Pearson correlation coefficient was computed to assess the linear relationship between the challenge of collaborating with external agencies that had an interest in improving high-crime areas (Q9(g)) and the average of the all the challenges of integrating crime hot spot policing (VG). There was a strong positive correlation $r = .72$ found. Another Person correlation coefficient was computed between the challenge of collaborating with external agencies (Q9(g)) and the challenge of influencing mid-level police managers to engage crime hot spot strategies (Q9(b)). There was a positive correlation $r = .61$

computed. There was also a positive correlation $r = .62$ computed between the challenge of influencing mid-level police managers to engage in crime hot spot strategies (Q9(b)) and the challenge of operational decision-making around what tactics to take in crime hot spots (Q9(h)). A strong positive correlation of $r = .74$ was found between the challenge of influencing mid-level police managers to engage in crime hot spot strategies (Q9(b)) and variable VG – Challenges of integrating crime hot spot policing. The academics/experts believed that evaluating the effectiveness of hot spot policing was not difficult, and a third of the QPS participants agreed. Collaboratively, a third of the participants agreed that operational decision-making around which tactics to employ in crime hot spots, allocating discretionary resources to crime hot spots, strategic planning around selection criteria and identifying micro crime hot spots, and measuring police officer time spent in crime hot spot locations were all not difficult to implement.

5.4 Products

The products for the micro-crime hot spot strategy aim to provide the guidelines about how to run the strategy, streamline processes to cut workload for the police and provide an efficient evaluation of outcomes. The researcher sought opinions on the importance of having a framework, documentation of environmental conditions and the need for a community satisfaction survey. Figure 5.6 depicts the level of importance attached to the three crime hot spot products discussed.

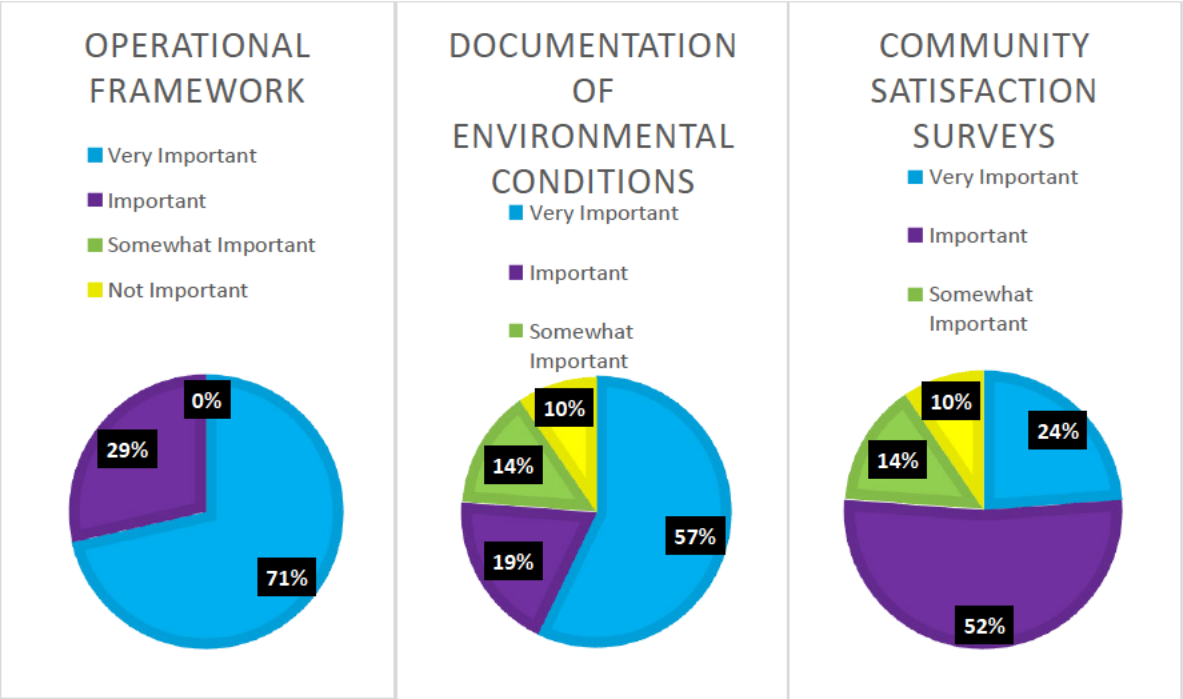


Figure 5.6 Descriptive findings (percentages) associated with importance of operational framework (left), documentation of environmental conditions (centre), and community satisfaction surveys (right).

As a result of the literature review, conducting the Logan hot spot experiment, and working as the project manager, the researcher regarded these three products as being important. All the participants agreed that it was important to develop an operational framework for a policing district that is flexible, so it suits the district's crime environment and workforce capacity. Of the participants 71% agreed that the framework was important. From the participants, 76% believed that it was important to observe and document the environmental conditions (physical and social) in crime hot spots to aid the formation of suitable crime prevention strategies. The same number of respondents (76%) also thought that it was important to conduct community satisfaction surveys in crime hot spot locations.

A Pearson correlation coefficient was computed to assess the linear relationship between the importance of a crime hot spot framework (Q10(VH) and usefulness of

being able to access district level data to assist in identifying and prioritising crime hot spots (Q12(d)). There was a positive correlation r = .55 found. A Pearson correlation coefficient was also computed to assess the linear relationship between the importance of conducting community satisfaction surveys (Q13) and the importance of conducting environmental observations (Q11). There was a positive correlation r = .73 found. There was however a significant negative correlation r = –.46 found between the importance of conducting environmental observations (Q11) and the usefulness of having guidelines for data analysis (Q12(a)). A significant negative correlation r = –.77 was also found between the usefulness of having guidelines for data analysis (Q12(a)) and having a mapping tool to show crime concentration (Q12(f)). The participants considered the most useful information to police districts to assist in identifying and prioritising micro crime hot spots to be a mapping tool showing crime concentration and a dashboard for prioritising crime hot spots with real time analysis. In addition, the participants reinforced the importance of having information available to them that analysed the stability, persistence, and specificity of crime at each location. The researcher found significant correlations between the importance of having information available that analysed the stability, persistence, and specificity of crime at each location (Q12(g)) and three other questions; real time hot spot analysis (Q12(h) r = –.77; participant role (Q15/VI) r = .55; and level of crime hot spot knowledge (Q22/VJ) r = .54).

Figure 5.7 shows the participants' responses related to the usefulness of products and information for identifying and prioritising micro crime hot spots.

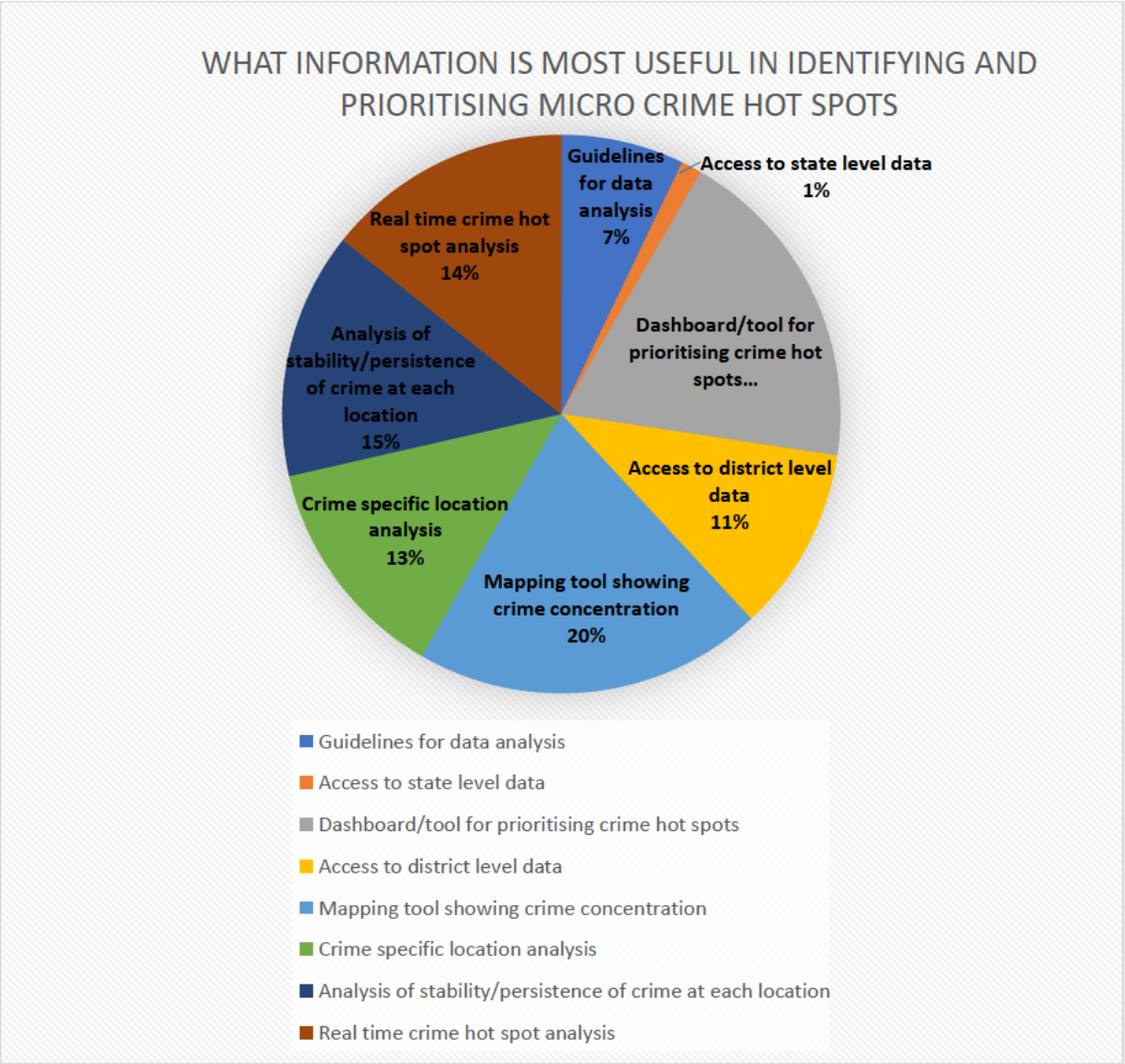


Figure 5.7 Descriptive findings (percentages) associated with the most useful information in identifying and prioritising crime hot spots.

5.5 Background Characteristics

Of the academic/expert participant group, 50% of invitees whom took part in the survey, make up 29% of overall participants. Of this group, all had a university degree or higher and possessed a considerable amount of knowledge of crime hot spot policing. Of this cohort 83% had previously been involved in crime hot spot research, with 50% having been involved in both strategic planning and implementation at a tactical or operational level.

The researcher looked at the relationships between these characteristics resulting in the following significant correlations. The participant's role (academic/expert and QPS) (Q15) was found to positively correlate to the participants level of education (Q16) $r = .63$ and previous involvement in hot spot research (Q23(a)) $r = .52$. A Pearson correlation coefficient was also computed to assess the linear relationship between level of education (Q16) and participant involvement in crime hot spot policing at a strategic level (Q23(c)) $r = .63$. Not surprisingly, a significant negative correlation was found to exist between participants with no previous crime hot spot experience and level of knowledge in the area.

The QPS group made up 71% of the overall participants of which 21% of whom were invited to take part in the survey did so. The participants in this group had some tertiary education or higher, and two thirds had between 16 and 36 years of policing experience. Of the participants in this group 80% had a moderate knowledge of hot spot policing. A Pearson correlation coefficient was computed to assess the linear relationship between years of policing experience (Q21) and all other background characteristics. There were no significant correlations found except with the level of crime hot spot policing knowledge(Q22) $r = .48$. Of significance, positive correlations were found between participants being involved in the implementation of crime hot spot policing at a strategic level and both participant role (Q17) $r = .54$ and rank (Q18) $r = .70$. The experience and expertise across all the survey participants relating to crime hot spot policing was expansive.

CHAPTER SIX: DISCUSSION

The researcher combined findings from the survey, the Logan hot spot experiment, learnings from the literature review, the QPS project management appointment, the “three Ps” principle of knowledge management and policing experience to create an effective framework for hot spot policing to increase QPS efficiency in reducing crime in a policing district. The discussion chapter aims to unpack the results to explain what they mean and how they answer the research questions. To do this, the researcher will use the identified themes and variables to firstly address question two; What steps are required to create capacity and strategic resourcing for effective hot spot policing in the QPS?’ before discussing the Crime Hot Spot Framework in answering question one; What can be an effective framework for hot spot policing that increases the QPS’s efficiency in reducing the incidence of crime in a policing district?

The first part of the discussion relates to the high-level interpretation of the relationships between the eleven variables that were formed from the question groups.

It is not surprising that the participants scored the use of effective tactics for reducing crime in hots spots and the use of external agencies in crime hot spot policing with similar importance. These results support the idea of embracing a larger vision of the policing function in crime hot spots, and of engaging internal and external groups, including the community, to co-produce safety, crime prevention and sustained solutions to local problems specific to the place (Lum 2017). This in essence supports the strategic purpose of the crime hot spot strategy in the QPS to work together to strengthen capability to prevent, disrupt, respond to and investigate crime and deliver safe and secure communities (QPS 2021).

Effective training methods was positively correlated with using effective tactics in crime hot spots and the participant's previous involvement and knowledge in crime hot spot policing. This finding was significant suggesting that those with experience and knowledge in this area support the importance of effective training and tactics for hot spot policing. As a result, the researcher, in collaboration with QPS colleagues, has compiled a training package to support the implementation of this strategy and included this step in the framework. The types of environments that are suitable for crime hot spot policing was also positively correlated with three other variables including the participants role, their level of knowledge in the area and again effective tactics. This is an important finding, giving support to previous theorists claims that the environment, including its state of disorder and its proximity to parks, shops, businesses, and transport, plays a part in providing a space that criminals find comfortable to commit crime. Looking specifically at the types of environments suitable for crime hot spot policing and what makes them 'hot' is discussed later in this chapter.

The researcher discovered that the correlations between the eleven variables only provided broad assumptions and therefore used the deeper analysis between the themes and associated questions to better answer the research questions. The following sections of the discussion chapter explore the detailed results behind the eleven variables sorted by the people, procedures and products themes and how the information has been used to inform the framework.

6.1 People

To create capacity and strategic resourcing and successfully execute the crime hot spot strategy in a policing district, with the aim of accomplishing the long-term goal of reduction in crime, depends heavily on the people involved. The results found that

the role of the crime hot spot coordinator in leading this strategy and ensuring that the strategic targeting of crime hot spots is effectively integrated within 'business as usual' was very important. A significant realisation for the researcher, from the Logan hot spot experiment was the importance of the coordinating officer role for both the initial implementation of the strategy and the ongoing management. The fact that all participants agreed that this role requires a person with influence among their peers, the ability to connect with others and possesses natural leadership suggests the selection of the crime hot spot coordinator to be a crucial first step in successful implementation. Those participants who scored 'influence among peers' as being important also scored 'natural leadership' and 'previous coordinating experience' as important. The participants didn't see the officer's current role as an important factor therefore suggesting that it is more important to pick the coordinator role based on personal characteristics and traits as opposed to a position they may hold in the organisation. The results also showed that there was no significant relationship between the role of the crime hot spot coordinator and participant group. The results show that the participants agreed on both the importance of the role and what characteristics were most important. The crime hot spot coordinator is therefore featured in the framework as a primary role in the strategy's implementation.

Regarding other people, which includes those internal and external to the police who should be involved in crime hot spot policing, the two participant groups' opinions scored similar and in high support for the use of tactical and disruption teams, government agencies, prevention teams and any units with discretionary time. Interestingly, the results of the study indicated less importance in using investigative and alternate response units in crime hot spots suggesting a greater emphasis on first response units and those with discretionary time. Using officers with

discretionary time yielded positive results from all participants supporting the efficient use of available resources for crime hot spot policing. In support of this finding the researcher has adapted the micro crime hot spot strategy to use a ‘live time’ tasking system to task unassigned police units with discretionary time to attend identified crime hot spot locations (further discussed in procedures and products).

Braga’s (2017*)* suggestion that police should engage in collaborative, community problem-solving approaches to address crime hot spots was supported through the positive correlations found between the involvement of prevention units and government agencies and the participants advocating for community involvement. This was further supported by the multiple significant positive correlations between using community groups, policing units with discretionary time, and government agencies. Both police and government agencies engaging with the community allows residents to provide input into the nature of the crime problems and into potential strategies for addressing them, providing a collaborative and unique insight into that place whilst allowing residents to have a voice. This particular finding supports that of Kochel and Weisburd (2017). Nearly all participants agreed that the involvement of external agencies to implement proactive strategies in identified crime hot spots for preventing crime was important with the majority choosing local council, department of housing and child/youth justice as ideally the most suitable agencies. Of significance, was the positive correlation found between the use of support and referral agencies in crime hots spots and working with elders and cultural leaders. These findings support that a collaborative approach involving the community and external agencies, in addition to numerous policing areas, would enhance the outcomes of such a strategy, particularly over time (Weisburd and Braga 2019).

It can be inferred from the ‘people’ theme that many persons play a very important role in both implementing and sustaining the reduction of crime in hot spot locations and that a coordinated and collaborative response, facilitated by the hot spot coordinator, is required to ensure success. The researcher did not specifically ask the participants to answer questions around the role of mid-level managers except in the procedures theme when tasking officers in hot spots. It became apparent to the researcher after reviewing the data in the ‘people’ theme that these managers did in fact play a crucial role. This role involved the coordination of tactics and activities required in hot spot locations particularly when engaging with local council and other agencies of whom they are already familiar with and hold established relationships. For this reason, the researcher included case managers as an important role in the crime hot spot framework. During the Logan hot spot experiment, it became apparent that district intelligence officers were vital in the initial analyses stage and the evaluation stage of the strategy process. Although the researcher was able to automate most of the underlying analysis required for identifying and evaluating crime hots spots within the dashboards, which form part of the framework, certain aspects of the process needed to be performed by trained intelligence analysts. District Intelligence officers were therefore added to the framework.

6.2 Procedures

Both current research and the data collected from this study around the people, indicated that a more holistic and inclusive approach is required in crime hot spot locations. The procedures’ theme builds on this inference and discusses the findings around what should be done in hot spots and how.

The research on hot spot policing has shown that simply using overt police patrols (both foot and vehicular) at identified crime hot spot locations for periods between

ten to fifteen minutes reduces crime at these locations (Braga, Turchan et al. 2019; Lum and Koper 2017; Williams and Coupe 2017).This was also a significant finding from the researchers work on the Logan hot spot experiment. Given the prominence of this finding the researcher asked the participants about the tasking of officers for tactics such as this. Majority of the academics/expert participants thought using an application on the officer's electronic device (QLiTE) was the most effective way to task frontline officers whereas the QPS participants preferred using a District Tasking and Coordination Centre (DTACC) for this purpose. In addition, all participants agreed that it was effective for taskings to come from both the hot spot coordinator and the case manager. The researcher took these findings to inform the framework and used the combination of the DTACC and QLiTE devices, using a newly created TACC App (tasking and coordination application) to task officers in the field to 'live time' crime hot spot locations. The data that informs these taskings will be discussed later in the 'products' section of the chapter. The roles of the coordinator and case manager have also been outlined in the processes section of the framework.

Crime hot spot policing may be a new concept for some police and especially other organisations. Even those people who are somewhat familiar with the strategy would not know the specifics around this project. It was therefore important for the researcher to gather insights into the effectiveness of education and training in preparing for implementation. The participants were unanimous in their opinions about education and training considering face-to-face classroom training as the most effective method in relation to guiding and implementing strategies. It didn't matter if the participant was from the QPS or not, nearly all participants ranked this training method as very effective. One-on-one training in the field was also ranked as

effective. Face-to-face training has been included in the framework and scheduled to commence at least one month prior to implementation. One-on-one training in the field is recommended to occur as required. Although the participants agreed that emails, text and online learning in general, which included the use of SharePoint and Workplace platforms were not effective, these methods should still be used in conjunction with the face-to face methods, so persons have a reference point to visit and locate relevant information. The framework and associated products should be accessible on a District SharePoint site for ease of access.

The literature review implies that over many years of policing in hot spots it is difficult to conclude what works best in these specific locations to effect crime reduction. One thing we do know is that hot spot policing generally has positive effects on crime. The researcher therefore asked the participants their thoughts on the most effective tactics and activities. Despite crime scholars and practitioners advocating for crime hot spot policing and the potential benefits of focusing police efforts on crime places (Braga 2017) surprisingly 90% off all participants advocated for the targeting of persistent and prolific offenders who are known to spend time in crime hot spots as the most effective strategy for reducing crime in these locations. This is a traditional way of policing and common practise in the QPS possibly influencing this result. Although crime hot spot policing is a place-based strategy the Identifying Dashboard (Figure 6.2) built by the researcher for this strategy can drill down to individual offenders in a crime hot spot location and provide intelligence on these persons to facilitate this targeted approach. The participants also scored directed patrols at crime hot spots for 10-15 minutes (getting out of the vehicle preferable to staying in the vehicle) as an effective strategy. This activity, supported by many studies as

being effective, is described as baseline patrols in the framework and uses the TACC app for tasking as discussed earlier.

Another approach discussed in the literature review involved the engagement with the residents and the community at crime hot spots. The research in this area suggests that policing agencies can improve their place-based approaches by incorporating community-oriented principles (Lum 2017). The participants said that engaging with residents and businesses to build trust and identify problems, and crime prevention through environmental design were effective strategies at crime hot spots. Strong positive correlations were found between engaging with residents and businesses with both identifying repeat victims and traffic enforcement in crime hot spots suggesting the importance of talking to the community to generate specific tactics to both support victims and target crime. The need to involve external agencies in these engagements was reiterated with two strong positive correlations between identifying repeat victims and developing strategies to reduce victimisation and crime prevention through environmental design.

Of significance, all eleven tactics were deemed to be very important or important in reducing crime at hot spot locations. We know from the literature review that these crime hot spot locations are small behavioural settings where both victims and offenders converge, supporting a crime rich environment (Newman 1976). These findings have highlighted the importance of a holistic approach and support Braga's (2017*)* conclusion that problem-oriented policing interventions seem to generate larger crime control impacts when compared with interventions that simply increase levels of traditional police actions in crime hot spots. For this reason, the researcher integrated existing weekly and monthly coordination meetings to facilitate the holistic, collaborative approach to targeting crime hot spots (outlined in the framework). Also

based on these findings the researcher provided an information sheet outlining all supported tactics and activities in the framework allowing a flexible approached depending on the characteristics and crime types of the crime hot spot selected for targeting. The researcher also concluded the imperative requirement, when using a holistic approach, to measure what tactics and activities were being implemented in these locations and the ongoing effect on crime. This capability was built into the Evaluation Dashboard (Figure 6.3) which is discussed in the products section of this chapter.

Hot spot policing research has predominately been conducted in cities. This is because a crime hot spot location has both concentrated and sustained crime. For most research conducted in this area certain thresholds are required to be met for the location to be classed as a crime hot spot. In the Logan hot spot experiment, to be classed as a crime hot spot, the street segment needed to have at least 20 calls for service and 20 crime occurrences over a 12-month period with at least one occurring every fortnight. In Queensland, the policing environments range across residential, commercial/ industrial, rural, entertainment/recreational, and urban/town settings. Some districts have a mix of environments in their policing jurisdiction and others have only one or two. The researcher asked the participants, based on their knowledge and experience, which types of environments or settings were most suitable for crime hot spot strategies. The findings were interesting but consistent with previous research in terms of suitable environments. The academics/experts believed that crime hot spot policing would be effective in commercial/industrial and entertainment/recreational settings with QPS members suggesting that crime hot spot policing would be most effective in residential areas. A positive correlation was found to exist between commercial/industrial and entertainment/recreational settings

and between these two settings independently with urban settings suggesting that all participants ranked these options consistently. A positive correlation was found between what environments were effective for hot spot policing and whether the participant was an academic/expert or from the QPS. It could be inferred that this finding was due to the participants exposure to hot spot policing and the environment in which it occurred. For example, the Logan hot spot experiment was in a residential setting and the QPS participants choose residential settings as being effective for the hot spot strategy. The results showed strong correlations between conducting hot spot policing in residential areas and using tactics including traffic enforcement and identifying repeat victims to develop strategies for reducing victimisation. This enhances the previous discussion point around the relevance of engagement with residents and gaining an understanding of the environment that requires targeting to provide a platform upon which to explore a wide range of potential strategies to effect sustained success in that place. In summary, the results gathered around suitable environments for hot spot policing show a link to the tactics that should be employed and support similar findings of environmental and place-based criminologists who have discovered that these locations, that are often nodes for businesses, leisure and/or travel activities, have features or facilities that create criminal opportunities that facilitate offending (Lum 2017).

The final component of discussion regarding the ‘procedures’ theme involves the challenges faced when implementing crime hot spot policing. These questions were asked of the participants to assist the researcher in shaping the framework and minimise the effects of potential challenges. Collaborating with external agencies that had an interest in improving high-crime areas was considered the most challenging aspect when integrating a crime hot spot focus into business as usual.

This finding was important considering that the involvement of external agencies is strongly supported by the participants. Of interest, there was also a positive correlation between the challenge of collaborating with external agencies and the challenge of influencing mid-level police managers to engage crime hot spot strategies and similarly between the challenge of influencing mid-level police managers with the challenge of operational decision-making around what tactics to take in crime hot spots. The researcher took these findings as potential risks to the success of implementation of the strategy and ensured mitigations were in place to minimise the effects. The appointment of the hot spot coordinator and frontline case manager role became more evident as the research project progressed primarily because of this section of the study and the requirement to employ accountability for the strategy. In terms of influencing case managers, they need to firstly understand the strategy including the 'why' and the evidence behind its success. The researcher has captured this in the training package component of the framework which includes one-one training for the allocated roles of coordinator and case manager. The appointment of the case managers is made based on that officers' established relationships with local council and other agencies pertaining to the identified crime hot spot potentially reducing the challenges associated with collaboration. The products designed for the strategy have been built to make the decisions around tactics at hot spot locations easy with most processes automated for the user. Although a third of the participants agreed that operational decision-making around which tactics to employ in crime hot spots, allocating discretionary resources, strategic planning around selection criteria, identifying micro crime hot spots, and measuring police officer time spent in crime hot spot locations were all not difficult to

implement, the products for the strategy were created and designed to minimise challenges around these areas.

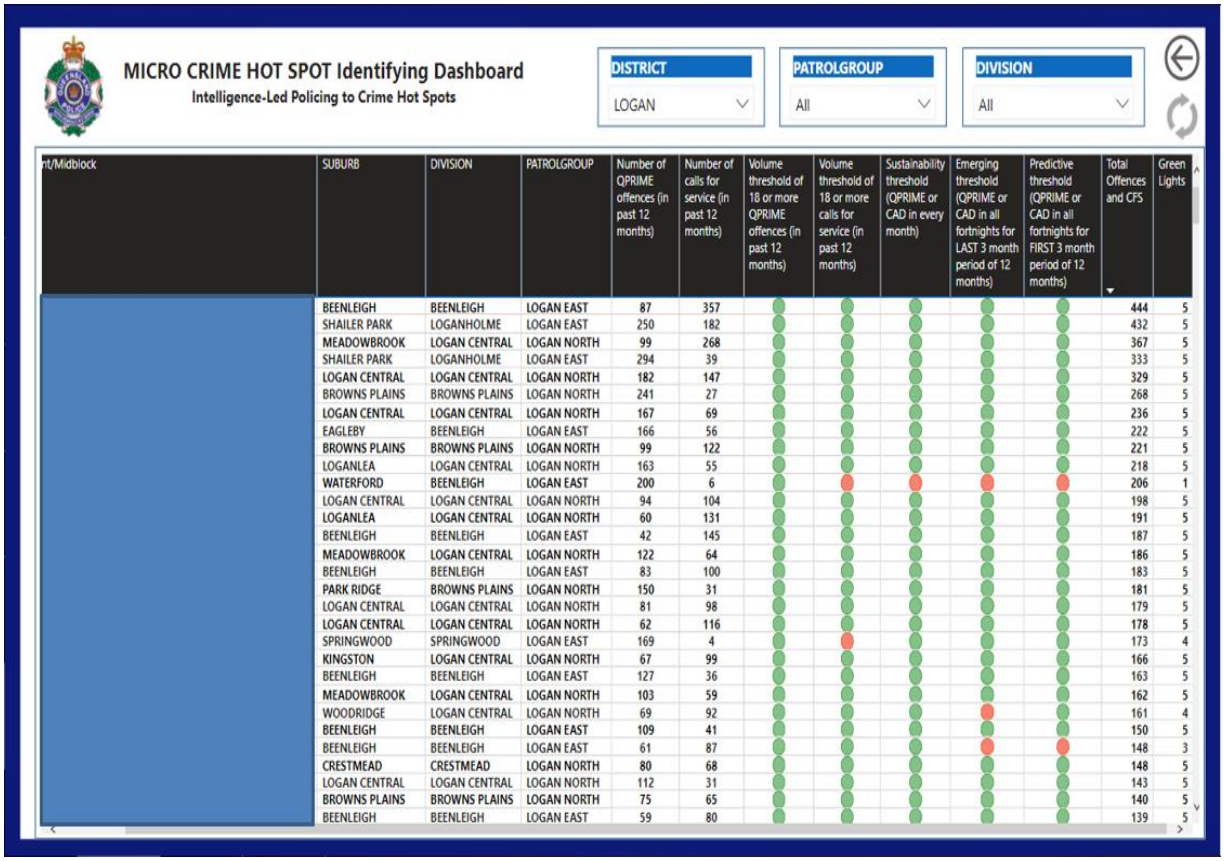
6.3 Products

The researcher sought opinions on the importance of having a framework, documentation of environmental conditions and the need for a community satisfaction survey. These questions were asked of the participants because from the literature review and previous experience, the researcher saw these as essential for both implementation and ongoing evaluation of effectiveness. All participants agreed that an operational policing framework to guide officers through the implementation of crime hot spot policing in a policing district was important suggesting that a policing framework for the crime hot spot strategy is crucial for successful implementation. This was a fundamental finding for the researcher given the research question asks what an effective framework for crime hot spot policing would be. It was evident in the results that access to district level data was positively correlated with the importance of having a framework suggesting that the data needs to be specific to the user's location. This finding was built into both dashboard components of the framework and allows the user to drill down to all the street segments located in a policing district.

The results show strong support for the importance of observing and documenting the environmental conditions (physical and social) in crime hot spots to aid the formation of suitable crime prevention strategies which supports Braga and Schnell's (2017) opinion for a stronger emphasis to be put on analysing the environment and the conditions at these locations that cause them to be attractive to potential offenders.

The results also showed that conducting community satisfaction surveys in crime hot spots was equally as important. This finding strongly supports Lum's (2017) research regarding engagement with the residents and the community at crime hot spots to improve policing approaches. The importance of conducting community satisfaction surveys and the importance of conducting environmental observations were strongly correlated. These results suggest that both products are equally important in both identifying suitable strategies for crime hot spot locations and evaluating the effectiveness of the tactics and activities used there. The researcher has therefor featured both these products in the framework.

During step three of the research project, the researcher was appointed the project manager for the implementation of the QPS Micro Crime Hot Spot Project and spent time planning and engaging with key stakeholders. In collaboration with intelligence and data analysists, the researcher looked at simplifying the processes involved in the identification, prioritisation, and evaluation of micro crime hot spots to provide frontline officers, including the crime hot spot coordinator, and frontline managers with effective and efficient, easy to use, fit for purpose products. The researcher used the findings from this study and processes used in the Logan hot spot experiment to inform the build of these products which were then included in the structure of the framework.



nt/Midblock	SUBURB	DIVISION	PATROLGROUP	Number of QPRIME offences (in past 12 months)	Number of calls for service (in past 12 months)	Volume threshold of 18 or more QPRIME offences (in past 12 months)	Volume threshold of 18 or more calls for service (in past 12 months)	Sustainability threshold (QPRIME or CAD in every month)	Emerging threshold (QPRIME or CAD in all fortnights for LAST 3 month period of 12 months)	Predictive threshold (QPRIME or CAD in all fortnights for FIRST 3 month period of 12 months)	Total Offences and CFS	Green Lights
	BEENLEIGH	BEENLEIGH	LOGAN EAST	87	357						444	5
	SHAILER PARK	LOGANHOLME	LOGAN EAST	250	182						432	5
	MEADOWBROOK	LOGAN CENTRAL	LOGAN NORTH	99	268						367	5
	SHAILER PARK	LOGANHOLME	LOGAN EAST	294	39						333	5
	LOGAN CENTRAL	LOGAN CENTRAL	LOGAN NORTH	182	147						329	5
	BROWNS PLAINS	BROWNS PLAINS	LOGAN NORTH	241	27						268	5
	LOGAN CENTRAL	LOGAN CENTRAL	LOGAN NORTH	167	69						236	5
	EAGLEBY	BEENLEIGH	LOGAN EAST	166	56						222	5
	BROWNS PLAINS	BROWNS PLAINS	LOGAN NORTH	99	122						221	5
	LOGANLEA	LOGAN CENTRAL	LOGAN NORTH	163	55						218	5
	WATERFORD	BEENLEIGH	LOGAN EAST	200	6						206	1
	LOGAN CENTRAL	LOGAN CENTRAL	LOGAN NORTH	94	104						198	5
	LOGANLEA	LOGAN CENTRAL	LOGAN NORTH	60	131						191	5
	BEENLEIGH	BEENLEIGH	LOGAN EAST	42	145						187	5
	MEADOWBROOK	LOGAN CENTRAL	LOGAN NORTH	122	64						186	5
	BEENLEIGH	BEENLEIGH	LOGAN EAST	83	100						183	5
	PARK RIDGE	BROWNS PLAINS	LOGAN NORTH	150	31						181	5
	LOGAN CENTRAL	LOGAN CENTRAL	LOGAN NORTH	81	98						179	5
	LOGAN CENTRAL	LOGAN CENTRAL	LOGAN NORTH	62	116						178	5
	SPRINGWOOD	SPRINGWOOD	LOGAN EAST	169	4						173	4
	KINGSTON	LOGAN CENTRAL	LOGAN NORTH	67	99						166	5
	BEENLEIGH	BEENLEIGH	LOGAN EAST	127	36						163	5
	MEADOWBROOK	LOGAN CENTRAL	LOGAN NORTH	103	59						162	5
	WOODRIDGE	LOGAN CENTRAL	LOGAN NORTH	69	92						161	4
	BEENLEIGH	BEENLEIGH	LOGAN EAST	109	41						150	5
	BEENLEIGH	BEENLEIGH	LOGAN EAST	61	87						148	3
	CRESTMEAD	CRESTMEAD	LOGAN NORTH	80	68						148	5
	LOGAN CENTRAL	LOGAN CENTRAL	LOGAN NORTH	112	31						143	5
	BROWNS PLAINS	BROWNS PLAINS	LOGAN NORTH	75	65						140	5
	BEENLEIGH	BEENLEIGH	LOGAN EAST	59	80						139	5

Figure 6.1 Depiction of the front page of the micro crime hot spot identifying dashboard.

This Identifying Dashboard (Figure 6.1) was created by the researcher in collaboration with QPS data analysts. Like the Logan hot spot experiment, the Identifying Dashboard draws from two sets of data. These sets of data include calls for service (CAD) and recorded crime data from Queensland Police Records and Information Management Exchange (QPRIME). This data is mapped or connected to midblock location codes (street segments) to enable the identification of micro crime hot spots. The data is automatically updated every twenty-four hours and includes data from the previous year to the current date. The manual process used in the Logan hot spot experiment to identify the crime hot spots was replicated by building an automatic script to read the data sets from CAD and QPRIME and display the required information on the identifying dashboard shown in figure 6.1. This product

allows the user to filter down to policing suburb and using a traffic light system provides a clear picture of what street segments (micro crime hot spots) meet the defining thresholds relevant to making a location ‘hot’. (Note, the blue block out section covers specific street segments).

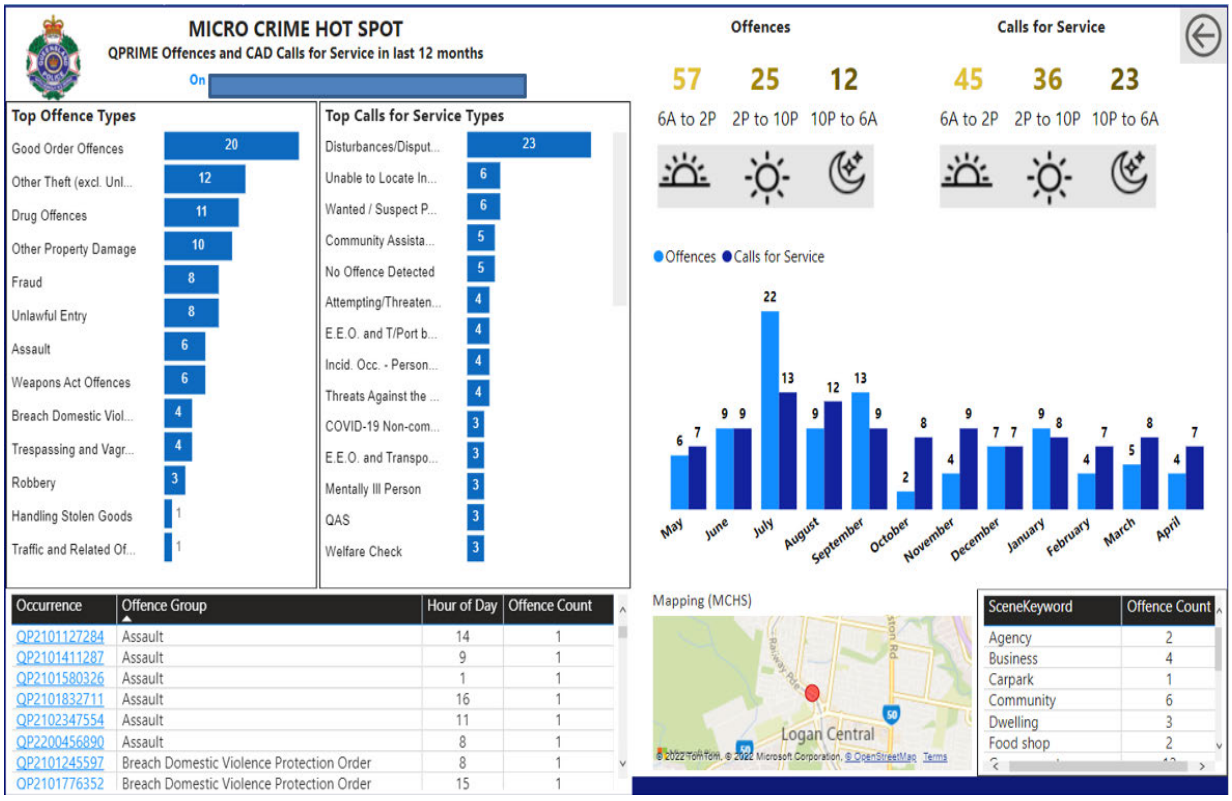


Figure 6.2 Depiction of the second page of the micro crime hot spot identifying dashboard.

The participants considered the most useful information to assist in identifying and prioritising micro crime hot spots to be a mapping tool showing crime concentration and a dashboard for prioritising crime hot spots with real time analysis. The researcher included the mapping tool function in the dashboard depicted in Figure 6.2 which is displayed for each selected micro crime hot spot. The above diagram also shows the real-time analysis for each selected location for three shift time

periods across twenty-four hours for both calls for service and crimes committed, or offences recorded. In addition, the user can see which months have more crime and what types of offences and calls for service are prominent. For a more detailed look, the user can select specific offences or activities that have occurred in that location which will assist in targeted responses to individuals and their addresses deemed by the participants as very important in affecting crime at hot spots. The participants reinforced the importance of having information available to them that analysed the stability, persistence, and specificity of crime at each location. The researcher found positive correlations between this capability and both participant role and level of crime hot spot knowledge giving the researcher confidence in the result thereby influencing the use of these functions in the dashboard pages depicted in Figures 6.1 and 6.2.

The researcher also found significant correlations between the importance of having information available that analysed the stability, persistence, and specificity of crime at each location and the ability to conduct real time hot spot analysis. These two capabilities were also built into the dashboard's which in turn informed the live time taskings through the TACC app by the DTACC to the QLiTE devices of the frontline units with discretionary time. These findings also supported Weisburd's (2019) focus on the necessity for conducting an in-depth, comprehensive analysis of the hot spot environment and the many factors or contributors responsible for the place being 'hot' in order to impact significantly on creating long-term change. Having products that allow police to understand the environment that requires targeting provides a platform upon which to explore a wide range of potential strategies to effect sustained success in that place.

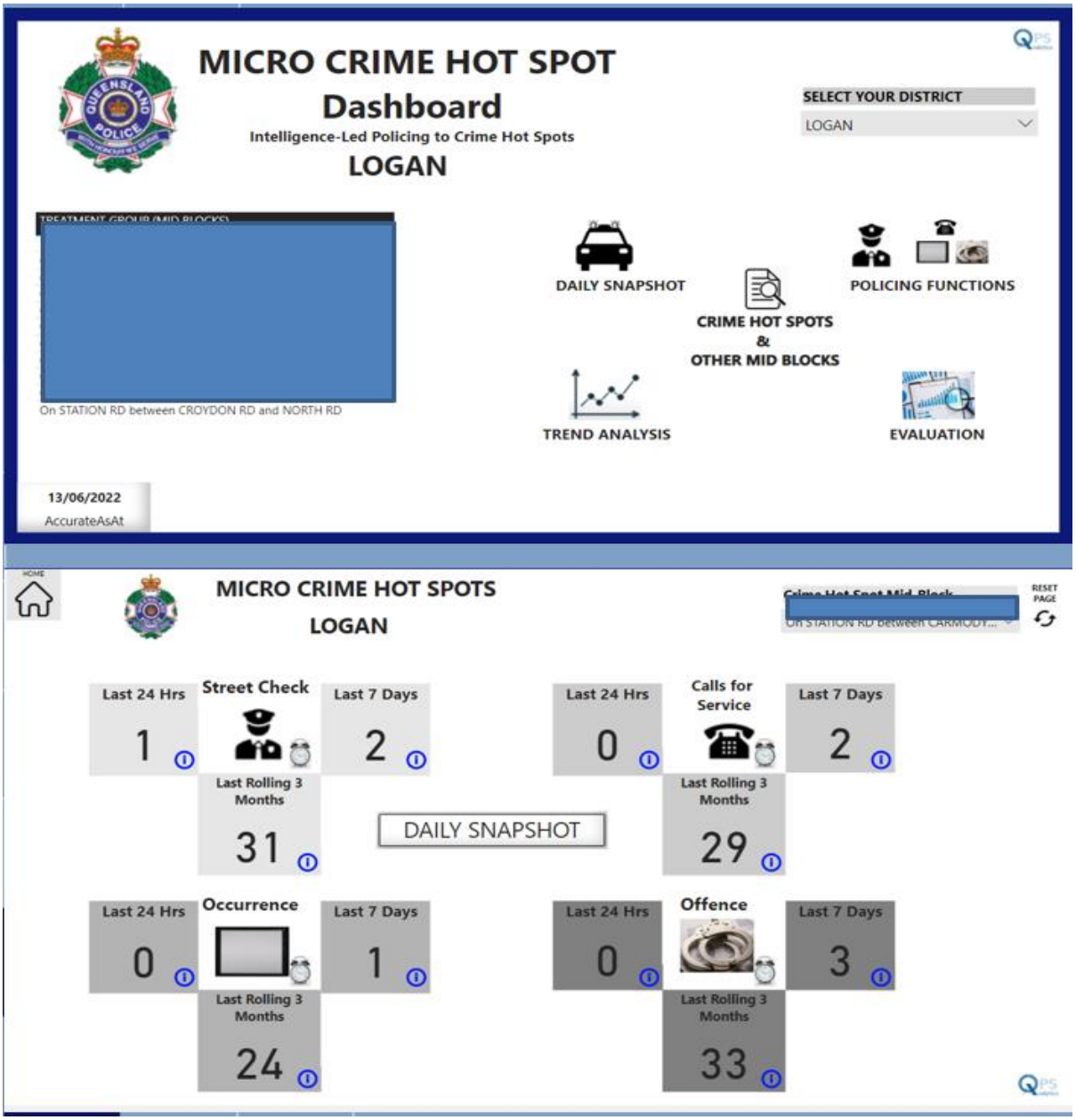


Figure 6.3 Depiction of the micro crime hot spot evaluation dashboard.

The Evaluation Dashboard was created by the researcher to provide a succinct review and update for a specified time period on the crime hots spots that were being treated. The data set that feeds this dashboard is the same as the Identifying dashboard and updated every 24 hours. The dashboard is intended to be used by the hot spot coordinator, the case manager for each treated location and the district intelligence unit however is accessible to all police. The first page lists the micro locations currently being treated (blocked blue section) and five functions to provide

information on each location. These functions were created to provide the users of the dashboard with relevant and detailed information to evaluate the effects of strategies being used at crime hot spots. The second page shows the daily snapshot of the selected crime hot spot depicting the calls for service, crime occurrences and offences committed in the last 24 hours, seven days, and three months. This information is used at specific tasking and coordination meetings held by the district every week and month to inform future strategies at these locations. This Dashboard is also intended for the use of the DTACC to inform three District shift briefings across each 24-hour period.

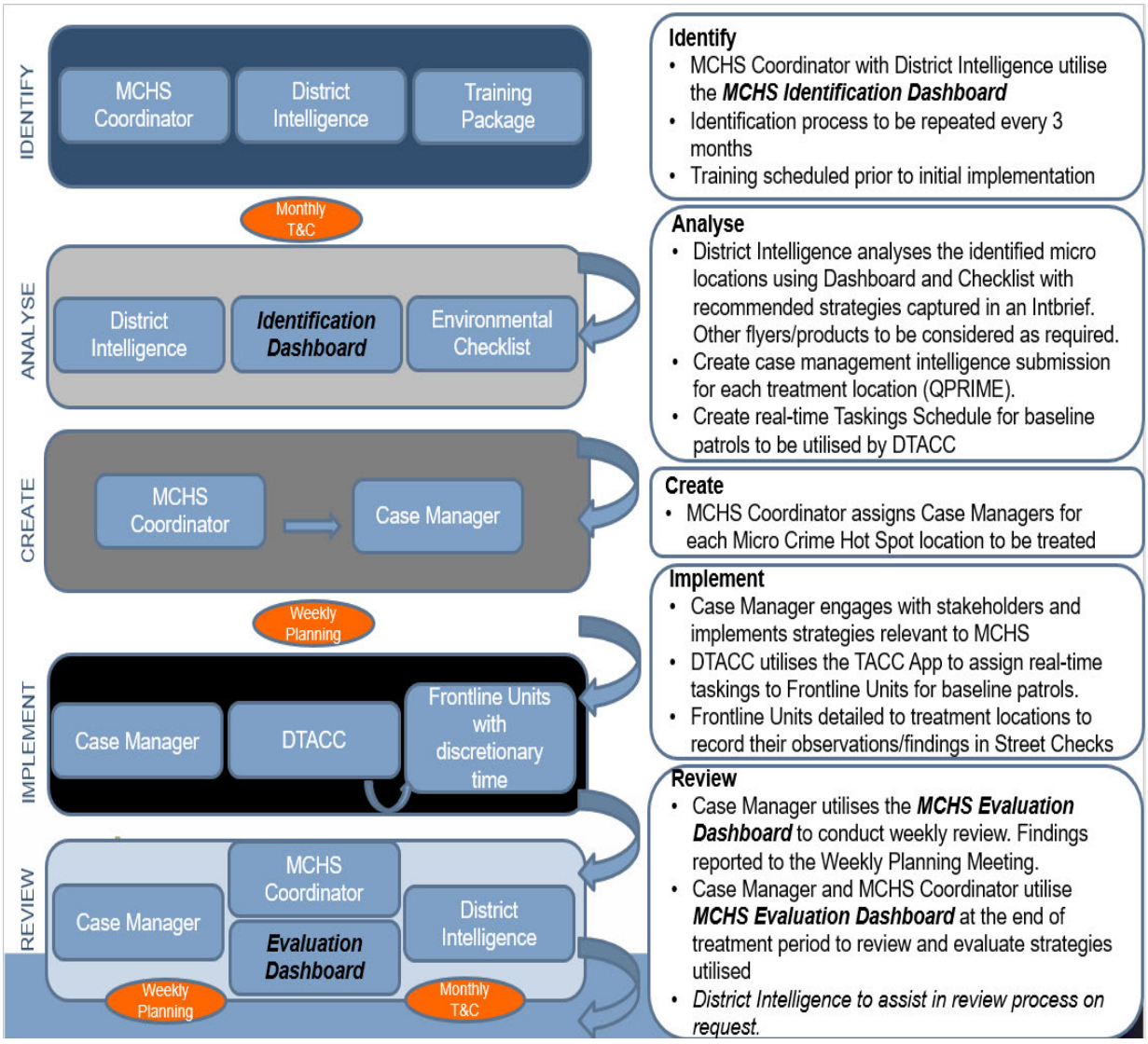


Figure 6.4 Micro crime hot spot framework.

Based on the findings discussed across the three themes, five steps were identified by the researcher as required to create the capacity and strategic resourcing for effective hot spot policing in the QPS. The first step - 'Identify' involves the hot spot coordinator, with the assistance of the district intelligence officer, utilising the Micro Crime Hot Spot Identification Dashboard to choose the locations for treatment. These selections are discussed at the first monthly tasking and coordination meeting for approval by the District Officer. Training of all officers is also scheduled during this step if required or if it is the first implementation of the strategy. Step 2 – 'Analyse' involves the further/deeper analysis of the micro crime hot spot by intelligence officers, the use of the environmental checklist, recording of the details and suitable strategies on the police record system (QPRIME) and the creation of the tasking schedule based on the dashboard for the TACC App. During step 3 - 'Create' the role of the case managers for each location is set. Step 4 - 'Implement' – entails the case manager engaging with key stakeholders including local council and those agencies specific to the crime types and issues in their crime hot spot. The case manager with the assistance of the coordinator implements strategies relevant to their crime hot spot and utilises the DTACC and TACC App to assign real-time taskings to frontline units for baseline patrols. The frontline units are detailed to treatment locations to record their observations and findings in street checks (QPRIME) which is captured in the evaluation dashboard. The coordination of other appropriate activities and tactics can also be discussed and tasked at the weekly planning meetings. This is the setting to invite investigative, traffic, prevention, and disruption units to participate in the strategic targeting of the selected locations. Step 5 - 'Review' the case manager utilises the micro crime hot spot evaluation dashboard to conduct the weekly review for the planning meeting and reports on the progress.

At the monthly tasking and coordination meeting the case manager and coordinator utilise the evaluation dashboard at the end of the treatment period to review and evaluate the strategies utilised. The District Intelligence unit can assist in the review process on request.

For ease of access to information, the framework has tabs and links to all relevant information including the instructions around roles, procedures and linked products based on the research findings from this work-based project.

6.4 Background Characteristics

The researcher chose to invite both QPS members and academic/experts in the field of hot spot policing to gain informed opinions on how best to construct a framework to guide the implementation and support the sustained effectiveness of crime hot spot policing across Queensland. The two groups did not differ greatly in their answers. This finding alone provides rigour to the data and suggests that policing experience and knowledge of targeting crime in practise is comparable to conducting research despite there being strong correlations between level of education and involvement in hot spot policing and the role of the participant.

Most of the QPS participants had over 16 years policing experience and nearly all stated they had at least a moderate level of knowledge of hot spot policing. The results also showed that the higher the rank of the officer the more specific knowledge they possessed and the more likely they had previous involvement in the implementation of crime hot spot policing at a strategic level, which was also evident with the academic/expert group. In summary, the experience and expertise of the survey participants in the field relating to crime hot spot policing was expansive providing the researcher with significantly valuable data.

CHAPTER SEVEN: CONCLUSION

Chapter seven outlines the key learnings and recommendations from this research including the personal learning objectives set by the author. The outcomes of this research which include the benefits to the author, the QPS and the community of practise are also discussed.

7.1 Key Learnings

The intent of the researcher was to utilise the information attained from this study to assist in the designing of a crime hot spot policing framework whilst achieving the triple dividend of benefiting the author, work environment and community of practise. Considering theses aspects, the research project has largely achieved its goals. The professional studies program has been crucial in enhancing the researchers' capabilities as a professional practitioner and in developing knowledge gaps. The researcher set out to achieve five learning objectives.

1. Develop professional knowledge and technology adoption by increasing understanding of hot spots policing using high-level research skills and the application of technology to produce a series of recommendations for professional practice.
2. Develop analytical skills by validating the research data through competent analysis and a rigorous literature review for inclusion in research findings.
3. Develop personal potential and enhance information management and dissemination and communication skills by presenting hot spot policing research findings and recommendations.
4. Enhance creativity and innovation capabilities by conducting a work-based research project, and through collaboration produce a framework for the effective and efficient implementation of hot spot policing.

5. Develop collaborative partnerships and enhance teamwork whilst conducting research by sharing information, managing resources and leading teams to build mutually beneficial relationships for the future.

The researcher improved professional knowledge by reviewing literature on crime hot spot policing and engaging with other experienced police officers and academics in the field. Through this process, the researcher gained an in-depth knowledge of the subject area from multiple perspectives. The researcher developed technology-based solutions using high-level research skills and through the application of technological systems to analyse and validate research data. The researcher also presented research findings in multiple forms and collaborated with analytic experts in the QPS to create bespoke dashboards that interpret and display the required information for crime hot spot policing implementation. This technology is now utilised by the researcher's colleagues enhancing their analytical skills and professional practice within the QPS. During the project journey the researcher developed personal potential by building information management, dissemination, and communication skills through introducing elements of this research in the QPS workplace via multiple presentations and the completion of the written thesis. Conducting a work-based research project has provided the researcher with a unique opportunity to demonstrate creative and innovative approaches in the workplace and produce a practical framework for crime hot spot policing in the QPS, benefiting not only the organisation but the community in which the QPS serve. This research is the first of its kind in Queensland and has produced an innovative product that is used daily to identify crime hot spots, make decisions about strategies to use and measure outcomes from policing effort. Whilst conducting the project, the researcher led multiple teams including intelligence, analytics, project management

and general policing enhancing leadership and resource management skills. The researcher built collaborative partnerships across the QPS, other policing organisations around the world and with experts and academics facilitating the sharing of information and insights that have built mutually beneficial relationships for the future. The researcher was invited to represent the QPS at the Evidence Based Policing Conference, Cambridge, England 2022 and presented on crime hot spot policing in the QPS.

7.2 Outcomes and Recommendations

The researchers' work environment/organisation has benefited from the project with the creation of a fit-for-purpose, sustainable policing framework that outlines the steps required to create capacity and strategic resourcing for effective crime hot spot policing in the QPS. The framework achieves this by encompassing the key people, products and overview of procedures to deliver an efficient strategy to reduce crime in a policing district (thereby answering both research questions).

This Micro Crime Hot Spot Strategy, informed by this research project went live in the first policing District in the QPS on 13 August 2022. It is anticipated that the roll out of this strategy throughout the organisation will be completed by late 2023.

The community of practice has also benefited as there is now a referenced body of research unique to Queensland, Australia to guide the way for other policing agencies to implement and deliver crime hot spot policing. This research was shared internationally, and networks were established by the researcher with other professionals to allow for collaboration in this area of work in the future.

The limitations around delivering this research project included the impact of the COVID-19 pandemic. This limitation affected engagement with key stakeholders, involvement of participants, and heavily influenced the researchers' responsibilities

as an officer in the QPS preventing focus on the project for periods of time. The number of participants was also low impacting the strength and significance of the findings.

The researcher makes the following recommendations for future research in this area:

1) Survey a larger number of participants to enhance the validity of the data.
2) Survey participants from wider groups including the residents of crime hot spots and personnel from identified government and non-government agencies that play a role in crime hot spot locations to obtain a broader perspective of crime and strategies to prevent it.
3) Consider the use of advanced GPS technology to alert officers to attend hot spot locations and automatically record officer attendance.

In conclusion, this project provides an approach to policing that not only efficiently uses police resources by tasking frontline police to locations where crime is disproportionately concentrated but looks more holistically at how people can work together to strategically prevent crime in the community. This research project supports the QPS commitment to embrace innovation and to strengthen the service's capability to prevent, disrupt, respond to and investigate crime resulting in the delivery of safe and secure communities (QPS 2021).

REFERENCES

Braga, A. (2017). Hot Spots Policing: Theoretical Perspectives, Scientific Evidence, and Proper Implementation. In: Teasdale, B., Bradley, M. (eds) Preventing Crime and Violence. Advances in Prevention Science, *Springer, Cham.* https://doi.org/10.1007/978-3-319-44124-5_23

Braga, A. and C. Schnell (2017). Beyond Putting "Cops on Dots": Applying Theory to Advance Police Responses to Crime Places. Unraveling the Crime-Place Connection, Volume 22, Routledge**:** 261-288.

Braga, A., B. Turchan, A. Papachristos and D. Hureau (2019). "Hot Spots Policing and Crime Reduction: An Update of an Ongoing Systematic Review and Meta-Analysis." Journal of Experimental Criminology **15**(3): 289-311.

Braga, A., A.. Papachristos and D.. Hureau (2014). "The Effects of Hot Spots Policing on Crime: An Updated Systematic Review and Meta-Analysis. Justice Quarterly **31**(4): 633-663.

Clarke, R. V. G. and M. Felson (1993). Routine Activity and Rational Choice, Transaction Publishers.

Cornish, D.B., and Clarke, R.V. (Eds.). (1986b). The reasoning criminal: rational choice perspectives on offending. New York: Springer.

Creswell, J. W. (2009). Qualitative procedures. Thousand Oaks, California, Sage Publications.

Fergusson, L., Allred, T., & Dux, T. (2018). "Work-Based Learning and Research for Mid-Career Professionals: Professional Studies in Australia." Interdisciplinary Journal of eSkills and Lifelong Learning, **14:** 1-17.

Goh, L. (2005) "Harnessing Knowledge for Innovation: an Integrated Management Framework." Journal of Knowledge Management **9**(4): 6-18

Hutt, O., K. Bowers, S. Johnson and T. Davies (2017). "Data and Evidence challenges facing place-based policing." Policing: An International Journal **14**(3).

Kochel, T. and S. Nouri (2018). Hot Spots Policing. Oxford Bibliographies.

Kochel, T. and D. Weisburd (2017). "Assessing Community Consequences of Implementing Hot Spots Policing in Residential Areas: Findings from a Randomized Field Trial." Journal of Experimental Criminology **13**(2): 143-170.

Koper, C. S. (1995). "Just Enough Police Presence: Reducing Crime and Disorderly Behavior by Optimizing Patrol Time in Crime Hot Spots." Justice Quarterly **12**(4): 649-672.

Lum, C. Koper, C.S (2017). Evidence-Based Policing - Translating Research into Practice. UK, Oxford University Press.

Mackenzie, N. and S. Knipe (2006). "Research dilemmas: Paradigms, methods and methodology." Issues in Educational Research **16**: 193-205.

Matei, M. Nitu, Ionel. (2012). " Intelligence Analysis in Romania's SRI: The Critical "Ps - People, Processes, Products." International Journal of Intelligence and CounterIntelligence **25**(4): 700-726.

Nagin, D. S., R. M. Solow and C. Lum (2015). "Deterence, Criminal Opportunities, and Police." Criminology **53**(1): 74-100.

Newman, O. (1976). Design guidelines for creating defensible space. Law Enforcement Assistance Administration. National Institute of Law Enforcement and Criminal Justice, United States Department of Justice. Retrieved 24.05.2020, from https://www.ojp.gov/pdffiles1/Digitization/148313NCJRS.pdf.

NIJ. (2020). "Practice Profile Hot Spots Policing." Retrieved 24.05.2020, from https://www.crimesolutions.gov/PracticeDetails.aspx?ID=8.

Pierce, G. L., S. Spaar and L. R. Briggs (1988). The Character of Police Work: Strategic and Tactical Implications, Center for Applied Social Research, Northeastern Unviersity.

QLDGOV (2022a). "Queensland Crime Statistics." Retrieved 24.04.2022, from https://mypolice.qld.gov.au/queensland-crime-statistics/

QLDGOV. (2022b). "Queensland Government " Retrieved 24.04.2022, 2022, from https://www.qgso.qld.gov.au/statistics/theme/population/population-estimates/state-territories/qld-population-counter.

QPS (2020a). Queensland Police Service Operational Plan. Brisbane, State of Queensland QPS.

QPS (2020b). Queensland Police Service Strategic Plan 2019-2023. QPS. Brisbane, QPS.

QPS (2021). Queensland Police Service Strategic Plan 2021-2025. Q. P. Service. Brisbane, QPS.

Ratcliffe, J. H. (2016). Intelligence-led policing, Routledge.

Ready, J. (2019). Physical Observation Instrument and Coding Guidlines - Logan Hot Spots Experiment. Griffith University, Gold Coast, Australia.

Ready, J. and E. Thomson (2021). Bringing Intelligence-Led Policing to Crime Hot Spots: The Logan Experiment: Executive Summary Report, Griffith University.

Sherman, L. W., P. R. Gartin and M. E. Buerger (1989). "Hot Spots of Predatory Crime: Routine Activities and the Criminology of Place." Criminology **27**(1): 27-56.

Spelman, W. and J. Eck (1989). "Sitting Ducks, Ravenous Wolves, and Helping Hands: New Approaches to Urban Policing." Public Affairs Comment(35): 1-9.

Telep, C., J. Ready and J. Bottema (2017). "Working towards intelligence-led policing: The Phoenix Police Department Intelligence Officer Program." Policing: A Journal of Policy and Practice **12**: 332-343.

Weisburd, D. (2015). "The Law of Crime Concentration and the Criminology of Place." Criminology **53**(2): 133-157.

Weisburd, D. and A. Braga (2019). Police Innovation - Contrasting Perspectives. UK, Cambridge University Press.

Weisburd, D., S. Bushway, C. Lum and S. Yang (2004). "Tradectories of Crime at Places: Longitudinal Study of Street Segments in the City of Seattle." Criminology **42**(2): 283-322.

Weisburd, D. and J. Eck (2017). Unraveling the Crime-Place Connection, Volume 22: New Directions in Theory and Policy, Routledge.

Weisburd, D., L. Green, D. MacKenzie and C. Uchida (1994). Drugs and Crime: Evaluating Public Policy Initiatives, Sage Publications Newbury Park, CA.

Weisburd, D., L. Maher, L. Sherman, M. Buerger, E. Cohn and A. Petrisino (1992). "Contrasting Crime General and Crime Specific Theory: The Case of Hot Spots of Crime." Advances in Criminological Theory **4**(1): 45-69.

Williams, S. and T. Coupe (2017). "Frequency Vs. Length of Hot Spots Patrols: A Randomised Controlled Trial." Cambridge Journal of Evidence-Based Policing **1**(1): 5-21.

APPENDICES

Appendix A: Physical Observation Instrument – Logan Crime Hot Spot Experiment

PHYSICAL OBSERVATION INSTRUMENT

LOGAN HOT SPOTS EXPERIMENT

SECTION I: TIME AND LOCATION

1. Street segment (write as: *name of the street* between *cross streets*)			
2. Street segment ID	_____		
3. Date of observation	____ /____ /____		
4. Time of observation (24hr)	____:____		
5. Field researcher ID	____ ____ ____		
6. Was there a second observer present (i.e., a co-observer)?	□ No □ Yes		
7. Co-observer IDs	____ ____ ____	____ ____ ____	____ ____ ____

SECTION II: BUILDINGS AND PHYSICAL STRUCTURES

BUILDING USE OR PURPOSE

8. Buildings that are used exclusively for residential purposes	Count: _____ Total: _____

9. Buildings that are used exclusively for commercial purposes	Count: _____ Total: _____
10. Buildings that are used exclusively for public/social services	Count: _____ Total: _____
11. Buildings that are mixed-use (Any combination of Q8-Q10)	Count: _____ Total: _____
12. Buildings that are vacant or abandoned (Regardless of intended use)	Count: _____ Total: _____

RESIDENTIAL BUILDINGS

13. Total number of residential buildings (Regardless of mixed-use or not)	Count: _____ Total: _____
14. Free-standing single-family homes (Not attached)	Count: _____ Total: _____
15. Row houses and townhouses (attached/not free standing)	Count: _____ Total: _____
16. multi-family homes (Must contain 12 or fewer units)	Count: _____ Total: _____
17. Apartment buildings (must contain > 12 units) (Regardless of free standing or not)	Count: _____ Total: _____

COMMERCIAL STRUCTURES

18. Total number of commercial buildings (Regardless of mixed-use or not)	Count: _____ Total: _____
19. Bars (or restaurants containing a bar)	Count: _____ Total: _____

20. Liquor stores	Count: _____ Total: _____
21. Restaurants (e.g., fast food or sit-down)	Count: _____ Total: _____
22. Day care centres	Count: _____ Total: _____
23. Entertainment and recreation businesses (e.g., theatres, arcades, and indoor parks)	Count: _____ Total: _____

PUBLIC AND SOCIAL SERVICES

24. Playgrounds, parks, courts, and ball fields	Count: _____ Total: _____
25. Schools and educational facilities (Public or private)	Count: _____ Total: _____
26. Places of worship (e.g., churches, mosques, and synagogues)	Count: _____ Total: _____
27. Government and municipal buildings	Count: _____ Total: _____
28. Health care providers (e.g., doctors, dentists, and drug treatment)	Count: _____ Total: _____
29. Police stations (e.g., headquarters, substations, and facilities)	Count: _____ Total: _____
30. Train and bus stations and other transportation structures (public or private)	Count: _____ Total: _____
31. Parking lots and parking garages	Count: _____ Total: _____

SECTION III: INDICATORS OF PHYSICAL DISORDER

DILAPIDATED BUILDINGS

32. Buildings with broken windows	Count: _____ Total: _____
33. Properties marked with graffiti (e.g., buildings, walls, and fences)	Count: _____ Total: _____
34. Buildings with security gates or barred windows	Count: _____ Total: _____
35. Buildings with structural damage (e.g., serious disrepair)	Count: _____ Total: _____
36. Burned and boarded up buildings	Count: _____ Total: _____
37. Vacant lots (not including parking lots or new construction)	Count: _____ Total: _____

BLIGHTED STREETS AND SIDEWALKS

38. Litter on the street and sidewalk	☐None	☐< 1 grocery bag	☐1-2 grocery bags	☐>2 grocery bags
39. Broken bottles and glass	☐None	☐< 1 dust pans	☐1-2 dust pans	☐>2 dust pans
40. Cigarette and cigar butts (Including Black and Mild tips)	☐None	☐< 1 ashtray	☐1-2 ashtrays	☐>2 ashtrays
41. Drug paraphernalia (e.g., vials, plastic baggies, syringes, etc.)	☐None in 3m. radius	☐1-2 in 3m. radius	☐3-4 in 3m. radius	☐5 + in 3m. radius
42. Condoms and condom wrappers	☐None in 3m. radius	☐1-2 in 3m. radius	☐3-4 in 3m. radius	☐5 + in 3m. radius
43. Damage to sidewalk or street (i.e., number of potholes)	☐None (0)	☐Few (1-3)	☐Some (4-6)	☐Many (7+)
44. Properties in need of landscaping (grass or shrubs)	☐None (0)	☐Few (1-3)	☐Some (4-6)	☐Many (7+)

45. Vehicles that appear abandoned	☐None (0)	☐Few (1-3)	☐Some (4-6)	☐Many (7+)
46. For sale and eviction signs	☐None (0)	☐Few (1-3)	☐Some (4-6)	☐Many (7+)
47. Signs restricting access or stating rules of behaviour	☐None (0)	☐Few (1-3)	☐Some (4-6)	☐Many (7+)
48. Signs advertising tobacco or alcohol	☐None (0)	☐Few (1-3)	☐Some (4-6)	☐Many (7+)
49. General perception of the neighbourhood (i.e., social class)	☐Ghetto poverty	☐Poor to working class	☐Middle class	☐Upper middle class

SECTION IV: STREET LAYOUT AND CONDITIONS

PHYSICAL DESIGN

50. Properties under construction or being renovated	□ None (0)	□ Few (1-3)	□ Some (4-6)	□ Many (7+)
51. Alleys that provide access to another street	□ None (0)	□ Few (1-3)	□ Some (4-6)	□ Many (7+)
52. Outdoor benches and tables (At restaurants, parks, etc.)	□ None (0)	□ Few (1-3)	□ Some (4-6)	□ Many (7+)
53. Surveillance or security cameras (public or private)	□ None (0)	□ Few (1-3)	□ Some (4-6)	□ Many (7+)
54. Number of street lanes (Including both directions)	□ 1 lane	□ 2 lanes	□ 3 lanes	□ 4+ lanes
55. Is this a one-way street?	□ No	□ Yes		
56. Is this a dead-end street or cul-de-sac?	□ No	□ Yes		
57. Is there a bus stop on the street segment?	□ No	□ Yes		

58. Is there restricted parking on either side of the street?	□ No	□ Yes		

STREET CONDITIONS

59. Automobile traffic (vehicles that pass within 60 seconds)	☐None (0)	☐Light (1-3)	☐Moderate (4-6)	☐Heavy (7+)
60. Amount of noise on the block	☐None (No noise)	☐Light (Fairly quiet)	☐Moderate (Fairly loud)	☐Heavy (Very loud)
61. Precipitation (rain)	☐None (clear)	☐Light (drizzle)	☐Moderate (shower)	☐Heavy (storm)
63. Temperature (Celsius)	☐Cold (< 10° C)	☐Cool (10-20° C)	☐Warm (20-30° C)	☐Hot (>30° C)
64. Lighting on the block	☐Whole area lit well	☐Mostly lit well	☐Mostly lit poorly	☐Whole area lit poorly

Appendix B: QPS – Micro Crime Hot Spot Strategic Planning Survey

Queensland Police Service - Micro Crime Hot Spot Strategic Planning Survey

- The prevention of crime and ensuring the safety of all communities are fundamental functions of policing services. The crime environment has become increasingly complex and dynamic challenging police capabilities in terms of identifying, targeting and preventing criminal activity. Through hot spots policing, police organisations can focus limited resources on small geographical locations where crime is concentrated.

- This survey is designed to tap into the feelings/opinions of experienced officers' and academic experts in the field, regarding the targeting of persistent crime and public order issues at micro hot spots, and the management and allocation of resources for that purpose.

- As the Queensland Police Service are adopting a new strategic management approach at micro locations, we believe it is crucial to have input from those with previous experience in this field combined with frontline officers in Queensland having a voice and the opportunity to actively participate in the dialogue around how to adopt this approach and how discretionary time and resources should be best used in the field.

- This survey is a step in that direction. It was developed to better understand the opinions about this location-based tasking approach, and how opinions may vary by knowledge, experience, job role and responsibilities.

- This survey takes about ten minutes to complete and asks you to consider a future in which strategic resources, crime intelligence and officer discretionary time are used on a wide scale to address micro locations with persistent crime problems.

- Your participation in this survey is entirely voluntary. If you do not wish to take part or you believe that reflecting on experiences may trigger some discomfort, you are not obliged to take part.

- All comments and responses are confidential unless required by law. The names of individual persons are not required in any of the responses. The data will remain the property of the Queensland Police Service and may be made available for future research purposes for similar projects only.

- The data will be stored on Microsoft One Drive and shared only on request. The data will remain non-identifiable. Participants can access the results' project summary upon request through the researcher. Any data collected as a part of this project will be stored securely, as per University of Southern Queensland's Research Data and Primary Materials Management Procedure.

- Clicking on the 'Submit' button at the conclusion of the questionnaire is accepted as an indication of your consent to participate in this project.

- **We appreciate your time and honesty.**

Concerns or complaints

If you have any concerns or complaints about the ethical conduct of the project, you may contact the University of Southern Queensland, Manager of Research Integrity and Ethics on +61 7 4631 1839 or email researchintegrity@usq.edu.au. The Manager of Research Integrity and Ethics is not connected with the research project and can address your concern in an unbiased manner.

Researchers contact details:

Senior Sergeant Emma Thomson

Email: [redacted]

Research Supervisor - University of Southern Queensland:

Dr Patrick Danaher

Email: [redacted]

Human Ethics Approval: H21REA148

There are 23 questions in this survey.

I People

The role of the crime hot spot 'coordinator' is to ensure that strategic targeting of micro crime hot spots is effectively integrated with business as usual at the district level. Please indicate how important the following factors are in identifying and giving responsibility for the role of coordinator.
*

Please choose the appropriate response for each item:

	Little Importance	Some Importance	Important	Very Important	Don't know
The individual's rank in the police service.	○	○	○	○	○
Their coordinating experience.	○	○	○	○	○
The individual's influence among peers (i.e., ability to connect).	○	○	○	○	○
Their personality (i.e., natural leadership).	○	○	○	○	○
The individual's current role.	○	○	○	○	○

To what extent do you believe the following groups should be involved in activities/strategies to reduce crime in micro hot spots?
*

Please choose the appropriate response for each item:

	Not at all	Seldom	Sometimes	Often	Very often	Don't know
Special crime prevention units	○	○	○	○	○	○
Specific tactical and/or disruption units	○	○	○	○	○	○
Special investigative units	○	○	○	○	○	○
General duties and first response units	○	○	○	○	○	○
Alternate response units	○	○	○	○	○	○
Any frontline unit that has discretionary time available	○	○	○	○	○	○
Other government agencies responsible for the micro crime hot spot (i.e., local council)	○	○	○	○	○	○
Community or neighbourhood groups	○	○	○	○	○	○

How important is it to involve external agencies to implement proactive strategies in identified crime hot spots for preventing crime?
*

ⓘ Choose one of the following answers
Please choose **only one** of the following:

- ○ Very important
- ○ Important
- ○ Somewhat important
- ○ Not important

Which external agencies do you think are ideally suited for implementation of proactive strategies in identified crime hot spots?

*

ℹ Check all that apply
Please choose **all** that apply:

- [ ] Children/Youth Justice
- [ ] Housing
- [ ] Corrective Services
- [ ] Education
- [ ] Health
- [ ] Local Council
- [ ] Seniors/Disability
- [ ] Transport
- [ ] Support/Referral Services
- [ ] Community Groups
- [ ] Elders/Cultural Leaders
- [ ] Other:

II Procedures

Which methods would be most effective in tasking frontline officers to carry out activities/tactics in crime hot spot locations? Please rank order the following methods. *

ℹ All your answers must be different and you must rank in order.
ℹ Please select at most 4 answers
Please number each box in order of preference from 1 to 4

- [ ] Tasking via a communications/tasking centre (over radio or via QLite/electronic device).
- [ ] Via a Crime Hot Spot application on an electronic device (GPS location specific).
- [ ] Direct tasking from the Crime Hot Spot Coordinator.
- [ ] Direct tasking from the officer's line manager in the field.

Based on your experience, please indicate how effective the following education/training methods are in relation to guiding and implementing strategies such as crime hot spot policing. *

Please choose the appropriate response for each item:

	Not effective	Somewhat effective	Effective	Very effective	Don't know
Face to face classroom training in groups	○	○	○	○	○
Online live video training via Teams or similar	○	○	○	○	○
Online learning package with no interaction	○	○	○	○	○
Informative emails and texts to frontline officers	○	○	○	○	○
Online SharePoint or Workplace platform	○	○	○	○	○
One on one training for frontline officers	○	○	○	○	○

In your opinion, how effective would each of the following tactics/approaches for reducing crime in persistent crime hot spot locations be.

*

Please choose the appropriate response for each item:

	Not effective	Somewhat effective	Effective	Very effective	Don't know
Directed patrols to crime hot spots for 10-15 minutes, without getting out of vehicle.	○	○	○	○	○
Directed patrols to crime hot spots for 10-15 minutes, getting out of vehicle.	○	○	○	○	○
Engaging with residents and businesses to build trust and identify problems.	○	○	○	○	○
Targeting persistent and prolific offenders who are known to spend time in crime hot spots.	○	○	○	○	○
Tracking the amount of time that frontline officers spend in crime hot spots.	○	○	○	○	○
Identifying repeat victims and developing strategies to reduce repeat victimisation.	○	○	○	○	○
Executing warrants and completing open investigations.	○	○	○	○	○
Using covert intelligence, such as surveillance and informants to target offenders associated with crime hot spots.	○	○	○	○	○
Traffic enforcement in crime hot spots.	○	○	○	○	○
Consulting and engaging with external agencies to develop third-party policing initiatives.	○	○	○	○	○
Crime prevention through environmental design (i.e., lighting, rapid repair, and changing layout).	○	○	○	○	○

In your experience/knowledge, in which types of environments or settings do you believe crime hot spot policing would be effective? *

Please choose the appropriate response for each item:

	Not effective	Somewhat effective	Effective	Very effective	Don't know
Residential areas (designed for people to live in)	○	○	○	○	○
Commercial or Industrial (retail and business)	○	○	○	○	○
Rural communities	○	○	○	○	○
Entertainment and recreational areas	○	○	○	○	○
Urban settings (town or city)	○	○	○	○	○

Based on your knowledge and experience, please indicate how challenging it would be to integrate a crime hot spot focus into business-as-usual policing in the Queensland Police Service.

*

Please choose the appropriate response for each item:

	Not at all difficult	Somewhat difficult	Difficult	Very difficult	Don't know
Getting frontline officers to complete crime hot spot tactics on the ground.	○	○	○	○	○
Influencing mid-level police managers to engage crime hot spot strategies.	○	○	○	○	○
Developing a location-based tasking system that would complement and not detract from the existing offender-based tasking system.	○	○	○	○	○
Measuring police officer time spent in crime hot spot locations.	○	○	○	○	○
Strategic planning around selection criteria and identifying micro crime hot spots.	○	○	○	○	○
Allocating discretionary resources to crime hot spots.	○	○	○	○	○
Collaborating with external agencies who have an interest in improving high-crime areas.	○	○	○	○	○
Operational decision-making around what tactics to take in crime hot spots.	○	○	○	○	○
Evaluating the effectiveness of hot spot policing.	○	○	○	○	○

III Products

How important is it to develop an operational framework for a policing district that is flexible so it suits the district's crime environment and workforce capacity?

*

ⓘ Choose one of the following answers
Please choose **only one** of the following:

- ○ Very important
- ○ Important
- ○ Somewhat important
- ○ Not important

How important is it to observe and document the environmental conditions (physical and social) in crime hot spots to aid the formation of suitable crime prevention strategies? *

ⓘ Choose one of the following answers
Please choose **only one** of the following:

- ○ Very important
- ○ Important
- ○ Somewhat important
- ○ Not important

Of the following, what information would be most useful to police districts to assist in identifying and prioritising micro crime hot spots for targeting? (please pick your top 4)

(Data relates to 12 months of QPRIME (crime data) and calls for service mapped to all street segments/mid-blocks in Queensland)

*

ⓘ Please select 4 answers
Please choose **all** that apply:

- ☐ Guidelines for data analysis.
- ☐ Access to state level data.
- ☐ Dashboard/tool for prioritising crime hot spots.
- ☐ Access to district level data.
- ☐ Mapping tool showing crime concentration.
- ☐ Crime specific location analysis.
- ☐ Analysis of stability/persistence of crime at each location.
- ☐ Real time crime hot spot analysis.
- ☐ Other: [ ]

How important is it to conduct community satisfaction surveys in crime hot spot locations?
*

Choose one of the following answers
Please choose **only one** of the following:

- ◯ Very important
- ◯ Important
- ◯ Somewhat important
- ◯ Not important

IV Background Characteristics

We would like to conclude the survey by asking a few questions about your work experience and background.

How much formal education have you completed?
*

Choose one of the following answers
Please choose **only one** of the following:

- ◯ Some high school
- ◯ Completed high school
- ◯ Some tertiary education
- ◯ University degree
- ◯ Master's MBA or professional degree
- ◯ Other

Which of the following best describes your role? *

Choose one of the following answers
Please choose **only one** of the following:

- ◯ Academic/Expert
- ◯ Queensland Police Service
- ◯ Other Policing Organisation

What is your rank/title? *

Only answer this question if the following conditions are met:
Answer was 'Queensland Police Service' *or* 'Other Policing Organisation' *or* 'Academic/Expert' at question '15 [Q15]' (Which of the following best describes your role?)

Please write your answer here:

What District or Command do you work in? *

Only answer this question if the following conditions are met:
Answer was 'Queensland Police Service' at question '15 [Q15]' (Which of the following best describes your role?)

Please write your answer here:

What function do you work in (ie., General Duties)? *

Only answer this question if the following conditions are met:
Answer was 'Other Policing Organisation' *or* 'Queensland Police Service' at question '15 [Q15]' (Which of the following best describes your role?)

Please write your answer here:

How many years have you been a sworn officer/staff member for your organisation? *

Only answer this question if the following conditions are met:
Answer was 'Queensland Police Service' *or* 'Other Policing Organisation' at question '15 [Q15]' (Which of the following best describes your role?)

Choose one of the following answers
Please choose **only one** of the following:

- ◯ Not applicable
- ◯ 0 - 5 years
- ◯ 6 - 15 years
- ◯ 16 - 25 years
- ◯ 26 - 35 years
- ◯ 36+ years

What Institution/Organisation do you work for? *

Only answer this question if the following conditions are met:
Answer was 'Academic/Expert' at question '15 [Q15]' (Which of the following best describes your role?)

Please write your answer here:

What Policing Organisation do you work for? *

Only answer this question if the following conditions are met:
Answer was 'Other Policing Organisation' at question '15 [Q15]' (Which of the following best describes your role?)

Please write your answer here:

What is your level of knowledge on Crime Hot Spot policing?

*

Choose one of the following answers
Please choose **only one** of the following:

- ◯ Very little knowledge
- ◯ A moderate amount
- ◯ A considerable amount

Have you previously been involved in Crime Hot Spot Policing? Please choose all that are applicable and provide a short explanation of your role.

*

Comment only when you choose an answer.
Please choose all that apply and provide a comment:

- ☐ Involved in conducting research or evaluating the effects of crime hot spot policing
- ☐ Involved in the implementation of crime hot spot policing at a tactical or operational level
- ☐ Involved in the implementation of crime hot spot policing at a strategic planning level
- ☐ No previous involvement in crime hot spot policing

Other

The survey is complete. Thank you for your time and cooperation. We appreciate your participation in this survey!