



POLITIHOØGSKOLEN

How to Make an Expert Detective?

**An Evaluation of the first ever
Icelandic Lead Detective Development Programme**



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Tittel: How to Make an Expert Detective? An Evaluation of the first ever Icelandic Lead Detective Development Programme?

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Sammendrag:

Dette studiet er en evaluering av det islandske utviklingsprogrammet for ledende etterforskere og anklagere på Island. Opplæringen ble utført i samarbeid med Center for politiutdanning i Reykjavík. Utviklingsprogrammet hadde 41 antall deltagere og ble gjennomført ved det nasjonale senter for politiutdanning i perioden august 2017 til februar 2018.

Formålet med studien var å identifisere om det var målbare endringer i deltakernes tankegang og om de var klar over faktorer som kunne påvirke deres ytelse i alternativ hypotesetesting under etterforskning og kan påvirke kvaliteten i beslutninger i etterforskning. Avhandlingen er basert på relevant litteratur og studier av etterforskning, beslutningsprosesser, kvalitetsarbeid, og understreker videre behovet for å lære av justisfeiler. Tre forskjellige tiltak ble brukt, pre- og postundersøkelse, kognitiv evnestest og refleksjonsnotater og innspillet ble evaluert og forsøkt å identifisere utviklingen i å forbedre læring og dermed forbedre kvaliteten i beslutningsprosessen i etterforskningen. Resultatene viser betydelig utvikling både i bevissthet og kunnskap i faktorer som påvirker individets tankegang under kriminell etterforskning. En av hovedkonklusjonene og bidrag fra studien er at det er rom for forbedring og ytterligere støtte til etterforskere og anklagere. Samarbeidet og støtten som deltakerne fikk, tyder på at mer kan oppnås. Videre virker det som det kan være behov for en systematisk tilnærming for å sikre at alle etterforskninger er av høy kvalitet.

Title: Quality in criminal investigation. Evaluation of mindset. Have we improved and learned.

Student: Halldór Rósmundur Guðjónsson

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Abstract:

This study is an evaluation of the Investigative Development Programme for investigators and prosecutors in Iceland. The training was carried out in collaboration with the Centre for Police Training and Professional Development in Reykjavík and had 41 participants and was conducted at the training centre from August 2017 until February 2018.

The purpose of the study was to identify if there were any measurable changes in the mindset of the participants and if they were aware or had knowledge of factors that could affect their performance in alternative hypothesis testing during criminal investigations that may affect quality in decisions during investigations. The thesis is based on relevant literature and studies of investigations, decision making and quality work and furthermore emphasizes the need to learn from numerous miscarriages of justice – or errors of justice. Three different measures were used, Pre- and Post-Survey, cognitive ability tests and reflection notes and the input was evaluated and an attempt made to identify the developments in improving learning and therefore improving quality in decision-making. The findings show significant development both in awareness and knowledge in factors that affect the mindset of the individual during criminal investigations. A key conclusion and contribution of the study is that there is room for improvement and further support for investigators and prosecutors. The collaboration and support that the participants received seems to indicate that more can be achieved. Furthermore, there seems to be a need for a systematic approach to investigation to ensure that all investigations are of high quality.

Acknowledgements

Learning from and observing the quality development that the Norwegian Police has been going through has been interesting, to say the least. In my studies at the Norwegian Police College (PHS) I have been very fortunate to see the determination of the Norwegian Police to build quality into every aspect of their work. For an onlooker like me this has indeed been something of an adventure and hopefully a pathway for the same change in the Police force where I work.

I am thankful for the support and help from numerous people during this study. I particularly would like to thank my supervisor, Dr Ivar Fahsing, for his enthusiasm and constantly raising critical questions along the way, for finding time for interesting discussions and for his encouragement to link further the academic thinking in relation to the quality of criminal investigations continuously searching for a better way for us to perform.

I would also like to thank the management of PHS, all staff and my fellow students for their open mind and constructive manner that is an example of how an institution and its members can together contribute towards a significant progress in quality in its service to the community. This attitude made the challenging study exciting. I have to express my thanks to all my fellow students for their patience and support during the study such as Ole Thomas Bjerknes, Marie Karlsson, Kenneth Berg, Dag Sveaas and all the others for their selfless cooperation during these three years of studying. This meant a lot to me.

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At last thanks to Ía and my children for their patience and support during these three years.

Njarðvík 14. janúar 2019.

‘Dette håper jeg dere tar lærdom av’

(Rachlew, 2009, Prolog p. iii)

This is our common goal and there is no other option.

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INTRODUCTION

‘Dori - we should definitely measure whether we can inspire professional development and change in the Icelandic police and prosecution service’. On the spur of the moment my supervisor, Dr Ivar Fahsing, is enthusiastic about the seemingly dormant and stagnant situation in the Icelandic police and prosecution service. Seeing his enthusiasm, I thought that this must be how Charles Darwin felt when he discovered a new species on some remote island about 200 years ago. Nevertheless, his enthusiasm was in itself invigorating and made me reflect on Kotter’s (2012) first principle for transformational change—the creation of drive and urgency. It seems we all sometimes need enthusiastic inspiration from the outside to find the motivation for fundamental changes. On the other hand, I was afraid that to Icelandic detectives and prosecutors deeply buried in piles of unsolved cases and a massive workload, Dr Fahsing’s call for quality and professionalism would have sounded like a wild cry from Utopia—a place or a state of mind we had all been dreaming of without really knowing what it might look like or, more importantly, where to go to achieve it, a bit like the eternal fantasy of lifelong happiness.

The description above also reflects the fact that our organisation and the quality of the justice system in Iceland does not seem to have been under heavy pressure to change, from either the inside or the outside. This could seem somewhat comforting, but does the lack of recent miscarriages of justice say anything about the level of quality and professionalism? Not necessarily, and this is probably especially true when considering something as trust-based and powerful as a police or criminal justice organisation (see, e.g., Klockars, Ivkovic & Haberfeld, 2003). How are fundamental concepts such as quality, effectiveness, efficiency and legitimacy defined, described, addressed and maintained within the course of justice? How do detectives themselves understand, relate to and operationalise these concepts? Could a programme which introduces new interpretations and methodological breakdowns of these concepts help Icelandic police officers and prosecutors improve the quality of criminal investigations and increase police legitimacy?

In an attempt to address these questions, this thesis first aims to evaluate the first professional development programme for Icelandic Lead Investigative and Prosecuting Officers. In September 2017, 41 senior detectives and prosecutors from central, national and regional forces commenced the first-ever national development programme for investigative management in Iceland. The training lasted for six months and was delivered by Dr Andy Griffiths from England and Dr Ivar Fahsing from Norway, both of whom are former practitioners and now academics in the field of criminal investigation. The content of the programme (described more thoroughly later) drew on ideas from the British Senior Investigation Officers Development Programme (ACPO, 2006, 2010) and the available research on law and investigative decision-making (Ask & Alison, 2010; Ask & Fahsing,

2018; Ask & Granhag, 2008; Klamberg, 2011). The second aim of this thesis is to investigate what quality is, in the context of police criminal investigations and address whether it can be tested and improved.

Criminal Investigation - Its Aims, Cultures and Challenges

The police service has many functions and responsibilities. The balance between these has been a topic of considerable academic debate. For many, the core function of the police is and has always been to maintain public order (Brodeur, 2010; Christie, 1986; Packer, 1968). In the public's mind, however, it is undoubtedly the prevention, investigation and detection of crime that is seen as the central part of the police mandate, in addition to the provision of reassurance (Newburn, 2011). Prevention of crime has increasingly been the focus of the police, and this seems logical as an extension of the emphasis on preventive measures in healthcare, involving a proactive rather than reactive approach to problems. Assisting potential young criminals as needed to change their behaviour is possibly the best crime prevention there is. Perhaps the most important aspect of the prevention of crime with regard to criminal investigations is the direct message it sends to criminals: that it is, or can be, risky to be a criminal. The police have developed many modern approaches to policing, such as community policing, problem-oriented policing and intelligence-led policing, all of which have the critical aim of changing the focus from a reactive to a proactive approach (Tilley, 2008).

The primary goal of a criminal investigation is to provide reliable, complete and relevant information about a possible criminal event or series of events (Stelfox, 2009). Hence, the purpose of an investigation that the police undertake is to establish whether a criminal offence has been committed which should be prosecuted by the state. Fahsing (2016) describes criminal investigation as an information-gathering and assessing activity which seeks to establish whether, how, where, when, why, and by whom a crime was, or will be, committed. Fahsing describes that to do this, detectives must discover, collect, check and consider evidence from various sources and attempt to construct a coherent account of the event. Furthermore, this is forthright in some cases but in others it can be scientifically more difficult. This definition of the main purpose of criminal investigations seems to hold for the Nordic countries, Western Europe and common-law countries such as the UK (Ask & Granhag, 2008; Blair & Rossmo, 2010; Hald & Rønn, 2013; Stelfox, 2009; Tong, Bryant & Horvath, 2009).

The task of investigation can be described in terms of three central decisions (Stelfox & Pease, 2013). First, it should seek to determine whether a crime has been committed, and if it has, then establish what kind of crime it is. Second, criminal investigation should attempt to identify and apprehend whoever is responsible, and secure and document the available evidence needed for a

potential trial. Third, criminal investigations ideally can prevent or stop an emerging crime from unfolding. The available research on how criminal investigations develop is quite limited (Hallenberg, O'Neill & Tong, 2016; Innes, 2003), and in the case of Iceland, it is practically non-existent. The reasons for this are uncertain, but it may be associated with a tradition of secrecy or a need-to-know culture within the police service. Although modern criminal investigation is firmly guided by law as to applicable procedures and purpose some of the sociological and criminological studies demonstrate that traditional detective work did not always prosper in public view (Leo, 2008; Maguire, 1994; Reiner, 1997).

Maguire (1994) describes that the Criminal Investigation Department remains highly result oriented and “what matters, above all else, the very *raison d'être* of the detective branch, is to arrest criminals” (p. 44). In the police organisation, becoming a detective was traditionally regarded as a promotion since detectives avoided the uniform, the night shift and the streets—but only if they blended in and performed (Rachlin, 1996). As stated by one of Maguire's (1994) detective interviewees, ‘a sus[pect] a day keeps the helmet away’ (p. 44).

The environment in which detectives operate can involve daily exposure to grave violence, hard-nosed suspects and a pressure to solve cases, all of which may encourage rapid, goal-directed thinking (Ask, Granhag & Rebelius, 2011) and deep emotional involvement (Ask & Granhag, 2007a; Bollingmo, Wessel, Sandvold, Eilertsen & Magnussen, 2009; Fahsing, 2016; Hobbs, 1988). These and many other internal and external sources of pressure may create a working condition which favours quick, stereotyped and resource-saving solutions (Barrett & Hamilton-Giachritsis, 2013; Fahsing, 2016; Mortimer, 1993; Mortimer & Shepherd, 1999). Knutsson (2013) conducted a study in Norway that demonstrated that expediency measures such as clearance days and conviction rates still the main indication in official publications in relation to quality in criminal investigations. This tradition of systematic questioning everything and focus on speed has resulted in that detective practice apparently developed a bias towards assuming guilt in combination with confirmatory investigation strategies (Brookman & Innes, 2013; Fahsing, 2016; Griffiths & Rachlew, 2018; Kassin, Goldstein & Savitsky, 2003; Leo, 2008; Oxburgh, Fahsing, Haworth & Blair, 2016). Accordingly, a traditional detective culture would conduct an ongoing investigation as a constant ‘information game’ against the suspect, the defence and the courts (Hobbs, 1988; Kleinig, 2001). It somehow became an option for the police to leave out information that was not consistent with their main theory (Fahsing, 2016; Kassin et al., 2010, Riksadvokaten, 2015).

Leo (2008) described that this can lead to detectives viewing an interrogation as a game where the final goal was achieved with little or no objectivity in mind. The ultimate goal was to make the suspect accept, surrender and to make him confess. This game was ‘structured to promote incrimination, if necessary, over truth-finding’ (Leo, 2008, p. 23). Furthermore, detectives developed

a culture of not revealing their actual motivation, strategies or tactics (Alison, Kebell & Leung, 2008; Rachlew, 2003; Soufan, 2011). The culture of never disclosing any more than is strictly necessary remains presumably as an important cultural part of the profession (Fahsing 2016; Hobbs, 1988). Moreover, it was a personal dedication to winning ‘the game’ which was also considered as important and the more serious the crime was then the higher the cultural status of ‘winning’ the case and ‘restoring justice’ (Corsianos, 2001, 2003; Rachlin, 1996). Although, this may look like corruption it is grounded in the constant battle between crime control and due process (Brodeur, 2010; Packer, 1968). As an example, the adversarial system used in common-law countries and beyond has from its early days been criticised for compromising the quality of justice and creating a risk of turning the chase for justice into a game with the goal of victory (Fahsing, 2016; Langbein, 2003; Pound, 1909).

The effective fictional detective has been portrayed in a host of television shows, novels and books. In the majority of these, a good-looking and hard-talking detective solves even the most challenging case simply by talking to someone, and after a couple of days the guilty party ends up behind bars. In reality however, a criminal investigation can be a highly complex and difficult process with few resources, and perhaps no solution or answer is found. Sadly, sometimes the police even produce new problems—so-called errors of justice. These range from the error of failing to bring offenders to justice to the error of convicting innocent people (Forst, 2004; Rachlew, 2009). Many grave errors and miscarriages of justice have been identified and documented worldwide (Poyser & Grieve, 2018; Rachlew, 2009; see, e.g., Ronald Huff & Killias, 2013; Scheck & Neufeld, 2010; van Koppen, 2008).

The Icelandic justice system is no exception, and 45 years later, it is still struggling with the case of Guðmundur and Geirfínnur. It began when two individuals went missing, Guðmundur in January 1974 and Geirfínnur in November of the same year. The case was investigated under a continuous media storm, and in February 1980 the Supreme Court convicted five suspects of murder and one of perjury (The Supreme Court of Iceland, 1980). Since then, several reports and reviews have criticised the reliability and quality of the initial investigation and the court process (Cox, 2014; Working Group for the Ministry of Interior, 2013). The case was opened again and interestingly in 2018 both the prosecutor and the defence requested the acquittal of five murder suspects (Supreme Court of Iceland, 2018). The basic argument for acquittal from the prosecution was that new material combined with previously hidden older material indicated that guilt had not been proven beyond a reasonable doubt. This conclusion was drawn especially from new insights and knowledge that made it clear that the main evidence in the case consisted of highly questionable witness testimonies and coerced confessions from some of the suspects.

In his thesis on errors of justice, Rachlew (2009) concludes that many such errors seem to stem from the same underlying problem; the fallibility of human cognition. Fahsing (2016) describes that similarities can be identified in different narratives of criminal investigative failures where investigators attempt to confirm their initial belief and at the same time disregarding or minimising conflicting information. Research on human judgement and decision-making teaches us that most people, much of the time, act in ways that systematically depart from strict logic and rationality. It is a human tendency in order to reduce complexity and cope with uncertainty to rely on a limited number of heuristics and principles. Moreover, generating simpler strategies of judgement and decision-making (Fahsing, 2016; Kahneman, Slovic & Tversky, 1982; see, e.g., Simon et al., 1987). On the other hand, heuristics are quite helpful in daily life as well as generally making our decisions more effective by guiding us in the right direction (Gigerenzer & Todd, 1999; Simon, 1977). However, in situations where there is limited information the same heuristics are due to many known biases as likely to be fatal as they are to be helpful (Fahsing, 2016; Kahneman & Tversky, 1973).

The term ‘confirmation bias’ was introduced in 1960 by Peter Wason (1960, 1968). He concluded after a series of experiments on hypothesis-testing that participants illustrated a preference for confirmation over falsification. Recent research has shown a strong tendency for positive testing strategies (Nickerson, 1998). Many studies illustrate a tendency to a belief-consistent interpretation and search for information (Fahsing, 2016, Klayman & Ha, 1987, Klayman, 1995, Nisbett & Ross, 1980; Wason & Johnson-Laird, 1972). In many situations, confirmation bias may feel useful since it demonstrates ability to reduce the cognitive pressure required when evaluating and executing complex decisions (Fahsing, 2016). This disregard of the diagnostic value of negative information was identified by Wells and Lindsay (1980) in a study of identity parades of suspects where it was thought to be more informative if the line-up identification was positive than if it was not. Fahsing (2016) emphasises that this basic tendency towards positive testing strategies can lead to a misunderstanding and links even for unrelated details, items or events.

Even when there is no prior personal or situational reason to confirm a hypothesis, people seem to favour confirmation as the default testing strategy (Wason, 1968). The phenomenon has proven sound across different fields of human thinking, including medical reasoning (Dawes, 1996), military intelligence (Cook & Smallman, 2008) and in courts and police investigations (Ask & Granhag, 2005; Nickerson, 1998; Rassin, Eerland & Kuijpers, 2010). Stephenson and Moston (1993) studied 1067 cases where the police interviewers were found in 73 % of the cases to be convinced of the suspect’s guilt prior to the interview. Ofshe and Leo (1997) describe that they documented how officers viewed the objective of interrogation as a two-step psychological process in which the interrogator first sought to convince the suspect that he was trapped and then attempted to make him understand the benefits of confessing. Thus, the only goal was to move a presumed-guilty suspect from denial to

admission. Moreover, Brodeur (2010) found that Canadian detectives were routinely willing to neglect rules in order to ensure a conviction if they considered the suspect to be guilty. While some of these studies are not especially recent and the situation may have changed in some jurisdictions, a presumptive guilt mindset seems to be the default mode in many detective cultures. Such individual characteristics do not operate in isolation, and they are fuelled and moulded by a number of situational variables.

Psychological research has congruently found that time pressure affects the quality of decision-making (Fahsing, 2016; Maule & Svenson, 2013; Ordóñez & Benson, 1997; see, e.g., Svenson & Maule, 1993). Particularly, the pressure of time presumably affects the ability to generate and test alternative hypotheses (Dougherty & Hunter, 2003; Thomas, Dougherty, Sprenger & Harbison, 2008). Thus, time pressure complicates the challenge of keeping an open mind and avoiding premature conclusions. In a series of seminal experimental studies using crime vignettes, Ask, Granhag and colleagues (2005, 2007b; 2011) found that time pressure made detectives more selective toward hypothesis-consistent information. They were less able to generate alternative explanations for criminal evidence, were more persistent in their initial belief regarding guilt, and were less adaptive towards new and relevant information, whereas colleagues working without time pressure adjusted their positions accordingly. Recent research indicates that even a perceived social expectation to work quickly, without actual time pressure, can produce similar effects. Professional investigators who were exposed to social norms promoting efficiency (as opposed to thoroughness) were less systematic in their processing of case-relevant information and less aware of this influence. Thus, it appears that the ‘need for speed’ inherent in the investigative environment has some obvious detrimental effects and other more subtle influences on detectives’ evidence evaluation and decision-making (Ask & Alison, 2010; see e.g., Dhimi & Ayton, 2001).

Another central aspect of human cognition is the extent to which a phenomenon is driven by goals and emotions (Kunda, 1990). Detectives and prosecutors claim some legally defined objectivity. This claim is presumably acceptable regarding upholding a legally defined impartiality, but it seems somewhat naïve if it is understood as a professional gift of judgement without bias or influence. In a number of experiments, Ask and colleagues have demonstrated how factors such as emotions (Ask & Granhag, 2007a; Ask & Pina, 2011), efficiency norms (Ask, Granhag, et al., 2011) and prior suspicion (Ask, Rebelius, & Granhag, 2008; Ask, Reinhard, Marksteiner, & Granhag, 2011; Marksteiner, Ask, Reinhard, & Granhag, 2011) significantly constrained participants’ ability to generate alternative explanations of criminal evidence. Furthermore, severity of the case may increase the risk of tunnel vision or correlation by illusion (Dror, Péron, Hind and Charlton 2005) and there is a tendency to have more faith in evidence that produces incriminating information (Ask, Rebelius and Granhag, 2008). In a study including Norwegian police officers, Bollingmo, Wessel, Eilertsen

and Magnussen (2008) found that emotions displayed by rape victims affected police officers' judgments of credibility and the results indicate stereotypical beliefs about rape victim behaviour. The victim was most credible when crying or in despair but less credible if being neutral or expressing more positive emotions. Findley and Scott (2006) argue that the dynamics, roles and expectations inherent in the criminal procedure promote tunnel vision against suspects. These claims and findings are hardly surprising, deeply rooted as they are in the principles of human memory and cognition.

Errors of Justice

'I hope you learn something from this' (*Dette håper jeg dere tar lærdom av*), wrongfully suspected Stein Inge Johannessen told the police after having been informed that he was no longer a suspect in a murder case (Rachlew, 2009, Prolog p. iii). This humble message inspired Police Superintendent Rachlew from the Oslo police to undertake a doctoral dissertation on how errors of justice might hamper the quality of police investigation and the criminal justice system in Norway. Errors of justice represent any failure of the criminal justice system, not only the public scandals (Forst, 2004). Errors of justice may ultimately destroy people's lives, erode support for the criminal justice system and be detrimental to society more broadly (Poyser & Grieve, 2018). The scale of the problem of errors of justice is unknown, and the factors involved in miscarriages of justice are not fixed.

However, human decision-making can as well as practice and legislation, reduce the likelihood of injustice (Poyser, Milne & Nurse, 2018). Forst (2004) explains that errors of justice are generally understood as errors in the interpretation, procedure, or execution of the law, and that when such errors violate due process, innocent individuals may be convicted.

There are numerous past examples of such grave errors of justice. From the era of gaining confessions in interviews (Gudjonsson, 2002, 2003; Poyser et al., 2018), there are examples from Britain, that include the Guildford Four (May, 1990), the Cardiff Three, and the Birmingham Six (Blom-Cooper & Brickell, 1998; Blom-Cooper, 1997). Although reform takes place there is no certainty that all lessons of previous mistakes have been learned as identified in the Stephen Lawrence murder case that resulted in guidance for investigators in the Murder Investigation Manual (ACPO, 2000). Therefore, there is continuous need to recognise major skill deficits and search for improving investigation quality (Maguire, 2003; Smith & Flanagan, 2000). Other cases include the Dutch case of Lucia B. (van Koppen, 2008), the case of Amanda Knox (Gill, 2016), and the Stephen Lawrence case (Sir William Macpherson of Cluny, 1999). There have been a few cases in Norway, including the Lilland case (Kleppe, 2008; Kolflaath, 2016; Politidepartementet, 1996) and the Fritz Moen case (Mæland, 2007; NOU, 2007:7; Sandberg, 2007), where confessions were likely false. The reviewing committee referred to research on false confessions under pressure (Gudjonsson, 1999, 2003, 2004; NOU, 2007:7; Strandbakken, 2001).

The Sture Bergwall (Thomas Quick) case is an illustrative example of bias in an investigation (Riksadvokaten, 2015, SOU 2015:52). Despite being innocent, Bergwall was found guilty of eight murders, and when the case was reviewed, it was found to have classic errors in which alternative hypotheses were not tested (Riksadvokaten, 2015). Interestingly, one of the findings of the working group reviewing the case was that reorganisation in the police is not a guarantee against errors of justice. Countermeasures of methodological support and continuous development of knowledge are necessary (Riksadvokaten, 2015).

In the Birgitte case in Norway (Gudjonsson, 2004), the suspect was arrested and convicted but later acquitted. The Riksadvokaten¹ (2002) noted that there was criticism concerning police interviewing in the case, since the suspect was interviewed for hours and over many days without any documentation. The Riksadvokaten points out that such a procedure allows opinions and speculation to exert undue influence and can lead to the police pressuring the suspect. The case of the Schiedam park murder is the ultimate Dutch example of a miscarriage of justice (Franken, 2008). In a park in the Dutch town of Schiedam, a 10-year-old girl was murdered, and an attempt made to murder her friend. An innocent man was convicted. When the case later became the subject of an inquiry (Posthumus, 2005), it became clear that errors had been made (van Koppen, 2008). The Posthumus inquiry concluded that the high emotional content of the case led to overly simplistic explanations for the unjustified condemnation of a suspect and that after his confession, there was indeed tunnel vision.

The 1974 disappearance cases in Iceland led to a conviction of murder suspects, but the case was later reopened (Endurupptökunefnd, 2017) and they were acquitted (Cox, 2014; Working Group for the Ministry of Interior, 2013; The Supreme Court of Iceland, 1980). A psychological evaluation of the statements by the defendants carried out by false confession expert Prof. Gisli H. Gudjonsson and Prof. Jón Friðrik Sigurðsson concluded beyond any reasonable doubt that the confessions had been unreliable both to the police and court (Working Group for the Ministry of Interior, 2013). Guðjónsson said that he had never come across any case where there had been such intense interrogation, so many interrogations and such lengthy confinement (Cox, 2014).

Returning to Stein Inge Johannessen, it is remarkable that at one point in his solitary confinement, Stein Inge called his attorney and said that there was no other way than to confess to the murder even if he did not do it (Pihl, Roger & Johannessen, 2012). Crises like this arise out of risks attached to the standard practises of investigation that originated to some extent as attempts to respond effectively to crime (Maguire, 2003). Hence, according to Forst (2004) and Rachlew (2009), a 'systems approach' should be adopted. Hollway (2014) describes that through this type of approach, problems have been targeted in diverse complex and high-risk industries, including healthcare,

¹ The Public Prosecutor in Norway is called the Riksadvokaten, or in English, the Director of Public Prosecutions. In this essay, this office is referred to as the Public Prosecutor or the Riksadvokaten.

aviation and manufacturing in order to improve the system rather than specific individuals within the system. Furthermore, providing an environment that maximises the individual ability to achieve the goals of the system. There has of course been development in this direction in various aspects of the investigation work. An example of such systematic approach in investigation that could be beneficial is the interviewing approach termed the whole story (Tidmarch, 2016). Furthermore, there has also been increased discussion of a system to countermeasure human errors in decision making and formulating investigative tools to facilitate this (Fahsing, 2016; Ask & Fahsing, 2018 Bjercknes & Fahsing, 2018).

Quality in a criminal investigation

Cases of errors of justice previously mentioned demonstrate where criminal investigations or the justice system has failed (Poyser et al., 2018). Some errors may of course be inevitable in all human systems and the Criminal Justice System is no exception (Grieve, 2007, Poyser & Grieve 2018). However, all possible actions should be taken to learn from the mistakes and focus on reducing and make relevant changes in policy and practice. Poyser and Grieve (2018) emphasise that psychological theory and research has contributed towards understanding some of the causes of error of justice, thereby helping us to learn. They mention that there remains much work to identify weaknesses as well as proposing reform based on scientific research to reduce miscarriages of justice. Criminal investigation is one of the fundamental functions of the police service and its quality is essential for its legitimacy (Fahsing, 2016, Maguire, 2008). Various approaches have been made to identify factors of quality within criminal investigations such as regarding expediency measures (Carson, 2007; Knutsson, 2013; Tong, 2009), methods of interviewing (Fahsing, 2016, Kebbel & Wagstaff, 1999; Memon, Meissner & Fraser, 2010) and decision making (Dror, 2012; Fahsing 2016; Hald & Rønn, 2013, Stelfox & Pease, 2005). Furthermore, in relation to decision making; the ability to generate alternative hypothesis and work towards disproving them, there seems to be an evolving field (Ask & Alison, 2010; Ask & Fahsing, 2018; Fahsing, 2016; Klamberg, 2015; Rassin, 2010).

Tor-Geir Myhrer (2015) defines quality as ‘an activity, which is conducted according to certain agreed standards’ (p. 9). Myhrer also emphasises that the quality component is not only related to the case clearance rates, but will equally be linked to how the question of guilt is investigated and that the quality component can be given the highest score although the case is not solved.

Quality is also defined as the degree to which an organisation satisfies mandatory or accepted requirements and expectations (Bjercknes & Fahsing, 2018). It is, however, difficult to determine what characterises a high-quality investigation. The criteria for identifying a high-quality investigation are not obvious, making it difficult to measure quality (Kjelby, 2017). Bjercknes and Fahsing (2018) point out that quality in investigations is based on several essential factors: correct application of the rules

that apply to the conduct of the investigation and methods used. Additionally, the methods used must be based on the best available knowledge and that alternative theories must be actively considered and processed from the beginning of the case in relation to suspicion and guilt claims and the possibility of innocence.

The 2018 ‘quality circular’ from the Riksadvokaten (2018) concerns quality more directly, and further directions have since then continued to stress the importance of quality (Riksadvokaten, 2019). The Riksadvokaten emphasises that investigation plans help structure the investigative work, improve the process and quality of the investigation and provide an overall picture of individual cases that can support decision-making. Previously, an action plan [Handlingsplan for løft av etterforskningsfeltet] (Politidirektoratet, 2016) described 20 action measures intended to strengthen investigation as an essential part of police reform in Norway. The fourth of these action measures concerned quality assurance, systematic evaluation and feedback that contributes towards a learning organisation (Riksadvokaten, 2019).

The decision-making method using falsification of alternative hypotheses is primarily based on psychological factors (Fahsing, 2016). Thus, law, regulations and training alone may not be enough to achieve quality in investigations, and recent studies have attempted to approach different aspects of this problem (Beckmann-Smerud, 2018; Berg, 2019; Bjercknes, 2019; Karlsson, 2019; Musum, 2019; Sveaas, 2019). We may also need a systematic approach in investigations of complex crimes. Fahsing (2016) points out that the aviation industry implemented checklists after the complexity of flying increased. Dr Atul Gawande (2010) discussed the idea of checklists in his book, *The Checklist Manifesto*, which describes a surgical checklist method implemented by the World Health Organisation (WHO) that resulted in considerable decreases in complications and death in surgery (Haynes et al., 2009). In a 2012 TEDx talk titled ‘How Do We Heal Medicine?’, Gawande claimed that making systems work is the great task of his generation of physicians and scientists in all fields. He added that knowledge has exploded and brought complexity to specialisation and that we have reached a stage where we have no choice but to recognise that, as individualistic as we may wish to be, complexity requires group success. It is apparent that to increase the quality of police investigations, we must not only involve laws and regulations and guidelines but also identify factors in our decision-making that may lead to errors of justice. Improving these areas may assist us on our way to enhance quality in criminal investigation.

Fundamental Principles of Criminal Justice

Fundamental principles like those of objectivity, proportionality and legitimacy guide investigators during the investigation of crime. These principles are universal (Mark Klamberg, 2011; McDermott, 2015), but this universality can face challenges since national penal laws are diverse (Hodgson, 2011).

One fundamental principle is the presumption of innocence (Aall, 2015; Strandbakken, 2003; Stumer, 2010). This principle of criminal procedure and a fair trial is clearly stated in the European Convention of Human Rights (ECHR), art. 6 (2): ‘Everyone charged with a criminal offence shall be presumed innocent until proved guilty according to law’. The principle guarantees a right that is fundamental (Harris, O’Boyle, Bates & Buckley, 2014). It can be traced back to ancient Roman law (Stumer, 2010), and its purpose has probably always been to prevent errors of justice and the unnecessary suffering of innocent suspects. Linked to this principle is the Latin term *in dubio pro reo*, which expresses the idea that doubt shall benefit the accused (Stefánsson, 2007). These same principles are also embedded in Icelandic law and legal tradition (Tómasson, 2012).

Another major legal threshold for conviction in criminal cases is the term ‘beyond a reasonable doubt’ (Ask & Fahsing, 2018; Diesen, 2015). This term, from American legal tradition, defines the margin of error which has to be adhered by the courts (Diesen 2015; Jackson, 1988). This may sound like a very adjustable threshold, and the history of legal practice could certainly imply this (Mark Klamberg, 2011). However, relatively recent publications in the fields of psychology and law suggest a deeper possible understanding of the term (Bjerknes & Fahsing, 2018; Diesen, 2000; Fahsing & Ask, 2018; Mark Klamberg, 2011; Rachlew & Fahsing, 2015). According to this view, the term means that the accuser should not only prove guilt in a confirming way but should also be able to disprove all reasonable alternative hypotheses or interpretations of the evidence at hand. Roberts and Zuckerman (2010) explain this as ‘a mental procedure of progressive elimination of explanations consistent with innocence’ (p. 134). Similarly, the forensic psychologists Canter and Alison (1999) have formulated a prescriptive model for thinking and deciding in criminal investigation: ‘Good thinking is represented by a thorough search for alternatives without favouring what one already has in mind’ (p. 30).

This understanding of the ‘beyond a reasonable doubt’ has enormous implications not only for the evaluation of evidence in courts but also for how detectives and prosecutors carry out investigative work. It can give some methodological guidance to a third legal term and a fundamental principle in the investigation procedure; objectivity. Every suspect is entitled to an investigation based on impartiality and objectivity. In relation to objectivity, Myhrer (2015) points out that investigations should not be biased; that is, they should bring forward not only information that supports the guilt of the suspect but also information that strengthens suspicion of that guilt. Bjerknes and Fahsing (2018) note that the requirements for objectivity can also be understood as a methodological ideal which is the opposite of arbitrariness and subjectivity.

From a psychological or scientific point of view, the term itself can be seen as a contradiction in terms. It has been argued that human decision-making is everything *but* objective (Ask & Alison, 2010; see, e.g., Ditrich, 2018; Fahsing & Ask, 2013; Kahneman et al., 1982). Myhrer (2015) explains

that the demand for objectivity is not natural for the investigator and that objectivity is related not only to the investigative result but also to how the investigation is carried out. As noted by the influential criminologist Herbert Packer (1968), ‘the presumption of innocence is a direction to officials of how they are to proceed, not a prediction of the outcome’ (p. 161). Hence, a lack of awareness of the methods underpinning the principle of objectivity may result in undesirable outcomes. The risk of serious errors increases with the severity of the offence and the sentence meted out. That is not only a theoretical possibility but apparent in real cases like the Norwegian case against Fritz Moen (NOU, 2007:7). Nevertheless, Fahsing (2016) points out that the mental effort of identifying all competing explanations and psychologically upholding a presumption of innocence is difficult even for expert detectives with extensive training. As Simon (1947) explained, ‘rationality requires a choice among all possible alternative behaviours. In actual behaviour, only a very few of all these possible alternatives come to mind’ (p. 79). To meet the desired standards, even experts will need substantial support in the form of refresher training, checklists, methods, systems and facilitating professional cultures (Fahsing, 2016).

Criminal investigation process

Most crimes reported to the police are not investigated or prosecuted and we do not even know if the majority of crimes are ever detected or reported to the police in the first place (Carson, 2007). Considering this, how much evidence-based methodological support is available to the modern-day detective or prosecutor? The penal or process codes do not provide much support, although most jurisdictions have formally embraced the idea of presumption of innocence. The statement from Herbert Packer cited above on how to understand the presumption of innocence as a due-process directive clearly expresses why the way investigations are carried out is just as important as their results. In most countries, this is to some extent recognised by the fact that evidence can be ruled inadmissible in court if guidelines given in the procedural code have been disregarded. The procedural law or legal regulations should therefore be an essential place to embed sound methodological advice.

If psychology or other sciences can make robust suggestions for how to proceed, there is potential for improvements. For example, Norway has only recently changed the national procedural instructions on how to conduct sound eyewitness identification parades.

The quality of criminal investigations and the process of justice cannot be judged by the end goal itself. As Ask and Granhag (2008) explain, ‘investigators seem to need procedures that promote accuracy-goals over end-goals’ (p. 172). Every step of the process has to be undertaken consciously and the mindset of the investigator must be deliberate. Of course, methodology must be adjusted to each individual case. Thus defining a definitive methodological approach that can be used in all cases is perhaps impossible. However, it is first and foremost the actual elements of the process of an

investigation that ensures its quality, and not only law and regulations. Consequently, it is essential that investigators focus their mindset on being aware of factors that can influence their effectiveness. To consider methodology, we must first understand what the criminal investigation process is. In essence, it is the collection of information by investigators through the use of a combination of investigative technologies, structured by the investigative methodology, which is produced through investigative actions (Innes, 2003). Innes argues that the investigative methodology unites the various methods used by investigators to obtain knowledge about a crime with a grounding and unifying logic. Innes (2003) further adds that a methodology governs how the different investigative technologies are used both individually and in combination and, not least, why particular investigative methods are selected from those available. Additionally, Innes (2003) suggests that these methods shape and guide how the investigators interpret information and understand the involvement of people, places and objects in crime.

The process in every case should be to identify what happened or what is suspected to have happened. What an investigator does at a scene of a crime, for example, is a process of establishing whether the suspicion is strong enough to initiate an investigation (Bjerknes & Fahsing, 2018). Investigation involves constant evaluation of the available information and making decisions about what must be done, when and by whom. During this process of organising and measuring available information and weighing up the possible directions the investigation can take, the investigation principles must always be borne in mind. Following all this, the investigator should generate all competing hypotheses that could exclude the primary hypothesis. If the hypothesis survives all attempts to prove it wrong, it will generally be considered to be the strongest one (Bjerknes & Fahsing, 2018). Knowledge and awareness are fundamental, but in order to transform these principles into practice, much more is needed. The next section addresses these additional necessary concepts.

A change of mindset and an emerging evidence-based investigative methodology

Maguire (2003) illuminates the criticism that investigative work has been essentially focused on the process of case construction against those who are suspected, waiting for them to admit to or reveal information about their own or someone else's recent criminal activities. This concept of case construction against suspects casts doubt on the idea that the goal of the criminal investigation is an objective search for the truth.

In an attempt to understand why police officers drift into guilt presumption at the expense of a more objective and fair process, it may be helpful to adopt the relatively dominant and straightforward theoretical model of the criminal process provided by Herbert Packer (1964). Packer described the criminal investigation process as a system under tension between two separate value systems that compete for attention. Packer labelled these value systems the crime control model and

the due process model. Packer further describes that it is argued that police officers predominately subscribe to the crime control model. The crime control model is based on the proposition that the active repression of crime is by far the most critical function to be performed by the criminal investigation process. Successful application of the crime control model determines the probable guilt of a person at the earliest possible stage and secures a conviction in the most expeditious manner possible. The due process model, on the other hand, questions the ability of police and prosecutors to repeatedly and reliably discern guilt through investigative processes. Thus, there is a need for a highly regulated and adversarial fact-finding process in which the case against the accused is publicly heard by an impartial tribunal and is decided on only after the accused has had a full opportunity to discredit the accusation. In this way, the due process model seeks to reduce error to the greatest extent possible (Cyr, 2015).

Stelfox and Pease (2013) recommend that detectives learn from the knowledge acquired within psychology and cognitive science. In short, this entails adopting a mindset and methods which are less confirmatory and also include alternative hypotheses and a falsifying mindset. Thus, they should document what the investigation can rule out and why. In order to do this, the investigation must go beyond a simple verification of the guilty hypotheses. It must also try to eliminate the suspicion by actively seeking alternative explanations for the available evidence and seeking additional evidence for a non-guilty hypothesis. This scientific methodology is an essential principle in any enquiry, criminal or not. As stated by US Supreme Court Justice Harry Blackmun in the so-called Daubert case (1993, p. 593),

‘Ordinarily, a key question to be answered in determining whether a theory or technique is scientific knowledge that will assist the trier of fact will be whether it can be (and has been) tested. Scientific methodology today is based on generating hypotheses and testing them to see if they can be falsified; indeed, this methodology is what distinguishes science from other fields of human inquiry’.

Fahsing and Gottschalk (2008) claim that ‘when it comes to solving a crime, a detective’s ability to think as an investigator is everything’ (p. 655). Innes (2003) explains that to understand detective work, the notion of sound reasoning is vital in two ways. First, although investigators also use more esoteric and specialist reasoning, a large part of an investigation is simply making sense of a crime—and to do that, investigators use the same knowledge and modes of rationality as everyone else in daily life. Second, detectives believe that common sense constitutes a base standard in an investigation. Trying to disprove the reliability of a proposed fact was also found to be an element in the common-sense reasoning of the detectives in his study. According to Fahsing (2013), research has thus far focused mainly on what should not be done and on identifying possible risks and barriers

such as those involving culture, methodology and investigation work, as opposed to the construction of real and actual methods. As such, there have been no contributions towards constructing alternatives to disparaged practises (Canter & Zukauskienė, 2007; Fahsing, 2013).

Stelfox (2009) divides the investigative mindset into five principles: understanding the source of material, planning and preparation, examination, recording and collation, and evaluation (p.164). Mindset is a concept within cognitive psychology which contributes to describing certain ways in which a person cognitively approaches his or her work (Dean, 2000; Fahsing, 2013). Mindset is a distinct manner in which a person approaches a task in a cognitive way or handles information (Fahsing, 2013) and is considered essential to the process of the investigation (ACPO, 2012). According to Stelfox (2009), an investigation mindset enables investigators to take a disciplined approach to decision-making through the application of principles to the investigation process; good decision-making is thus a kind of attitude of mindset toward an investigation. Furthermore, when an investigation remains unresolved or a miscarriage of justice occurs, the reason is flawed decision-making, as discussed in the Byford Report (Home Office, 2006) and the Shipman Inquiry (Britain & Smith, 2003).

Fahsing (2013) has also identified four factors of mindset in relation to criminal investigations; methods, challenge, skill and risk. Before examining the factor of methods as it relates to criminal investigation, the other factors are briefly discussed here. The factor of challenge generally concerns the motivation to conduct an investigation, but the four elements, that drive the investigation are the work, the victim, the case and the suspect, and these are the sources linked to emotional, personal or mental aspects of the investigator and encourage investigators to do their best. However, these personal and emotional involvements may conflict with the focus on rationality, objectivity and procedure. Indeed, studies have found that emotional involvement in investigations can have a negative impact on even an experienced investigator's ability to evaluate the evidence, thus having a detrimental effect on the investigation (Ask & Granhag, 2007a; Fahsing, 2013). Additionally, it has to be born in mind that there is a clear connection between the ability to be engaged and motivated and the risk of suffering stress and symptoms of burnout resulting in negative results of the work (Fahsing, 2013; Richardsen, Burke, & Martinussen, 2006).

The skill factor concerns how the investigator acts in order to perform in all stages of an investigation. Therefore, there is a need to strike a better balance between knowledge, awareness and ability. Important skills are, for example, to be able to have a balanced and empathetic relationship with everyone in the case. Moreover, skill entails having the ability to read the case from multiple angles simultaneously and interpreting them, similar to the deductive reasoning that Sherlock Holmes is famous for. The factor of risk involves being creative and finding creative new solutions and the innovative abilities of the investigator. Fahsing (2013) describes this thus: 'this thinking style deals

with how clever investigators discover new information and new ways of connecting these together through creativity, curiosity and endurance' (p. 138). This is therefore a creative mindset focused on trying to approach the investigation or problem from a new angle (Fahsing, 2013; Kaufmann, 2006).

The key factor of mindset is the investigation as a method or method style. This refers to the investigator's use of common and recognised methods and procedures that they have learned and that relate to a framework of laws and regulations.

It is fundamental that an investigation follows a certain structure and process to be recognised as a good investigation (Fahsing, 2013). Methods have also been identified as a formal procedural approach for gaining knowledge through the collection and handling of information (Innes, 2013) and accounting for evidence, a concept that in England is termed standard operating procedures (SOP) (Fahsing, 2013; Staines, 2011). Bjerknes and Fahsing (2018, p. 91) describe how methodology is to be understood and connected:

'Methodology is the doctrine of the methods within a subject. A method can be defined as a systematic approach to solving a problem or task. A tool is an instrument or technique that can support performing a task. A methodology is thus a holistic approach that can contain several methods and tools'.

There has been a significant development of methods and change of mindset within investigative interviewing – especially in England, Norway and a few other countries (Rachlew & Fahsing, 2015). However, when it comes to more general investigative methods the development of research-based support is quite bleak. Hence, there are few tools and methods available. Below are presented some promising concepts suggested by researchers from Denmark, Norway and England. They are not yet experimentally tested, but anyway still quite promising.

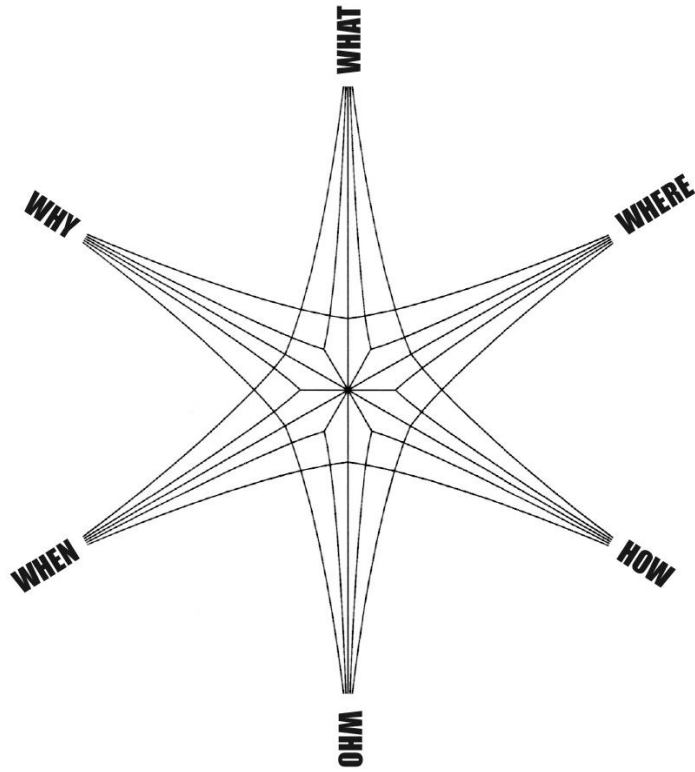


Figure 1. The investigation star.

Figure 1 above presents the ‘investigation star’ (Hald, 2011; Tilstone, Hastrup & Hald, 2013; Fahsing, 2013, p. 132) used to illustrate the principal questions generally asked in an investigation, according to Hald (Bjerknes & Fahsing, 2018; Fahsing, 2013; Hald, 2011). These questions that investigators seek to answer (Hald, 2011) through objective analysis are *what*, *where*, *how*, *who*, *when* and *why*. This sort of illustration is an *aide-mémoire* for the investigative mindset and covers all areas of the criminal investigation. These questions can be expanded to ask who is involved, what has happened, how did it happen, why did it happen, where did it happen and when did it happen? (Fahsing, 2016)



Figure 2. The Six C's and the Six W's in the Investigative Cycle (Fahsing, 2016).

Figure 2 above illustrates the investigative cycle as a six-step cyclical investigation process aimed at answering the six investigative questions depicted in the investigation star (Bjerknes & Fahsing, 2018, p. 51; Fahsing, 2016, p. 20).

The model (Fahsing, 2016) illustrates how intelligence officers, detectives and the prosecuting authorities should go about any investigation. The six-stages cycle is meant to be repeated until the case is solved or filed

This process can be identified as the collection of facts, followed by reflection and analyses and, finally, construction of evidence or proof (Fahsing, 2013). Fahsing developed this model building on the work of Geoff Dean (2000), whose study of Australian detectives led to the creation of the 5 C's model (Dean, 2000; Dean, Fahsing, & Gottschalk, 2010). Fahsing calls this a cyclic and repetitive process whose approach builds on abductive logic. Fahsing (2016) noted that this is an early model based on qualitative data and has not been experimentally tested.

In the review of the Bergwall cases, the working group found that the investigation process took a shortcut over the steps of construct and consider and went straight to connect. The process also moved through the different phases for the purpose of collecting, checking and connecting information needed for the charge they were about to bring against Bergwall (Riksadvokaten, 2015). This approach is supported by the working group (Riksadvokaten, 2015) that researched the Norwegian police and prosecution service's handling of the cases against Sture Bergwall and furthermore looked to identify what could be learned from it. Their findings are that the model provides a good overall illustration, not only of the critical questions the police and prosecuting

authorities must work through, but also of the system and thinking that must characterise the actors' work in order to operationalise basic criminal procedure principles. The working group further pointed out that although the model is primarily intended to describe the investigation phase, it indicates at the same time how the prosecuting authority can approach the evidence during its assessment. Moreover, the working group notes that in order to establish a reasoned opinion of the issues of prosecution in difficult cases, the prosecution's work cannot be limited to an assessment of the final evidence base.

Situational factors like time pressure and emotions may affect an investigation (Ask, 2013). Factors in the investigator's environment may affect important decision-making and conclusions, increasing the risk of failure in the investigative process. According to Fahsing and Ask (2016), there seems to be a strong consensus about factors that may influence investigations negatively, such as time pressure, limited resources and inadequate training.

Crime investigations are composed of some discrete linked investigative actions which are directed towards gaining knowledge about how and why the crime occurred (Innes, 2003). Many of these actions of collecting information to make sense of the crime are organised and related through lines of enquiry linked to thematic areas of the investigation.

Innes (2003, p. 177) identifies the investigative methodology as follows:

'A combination of practices, procedures, processes, routines, conventions, theories, and techniques through which police respond to crime. It informs the method which police officers employ to acquire and interpret information when investigating different types of crime, accounting for the situational factors pertaining to the specific incident'.

Innes further adds that the concept of an investigative methodology is informed by the sense that most investigations are relatively standardised, but that adaptable practices, procedures and strategies are used by police in investigations. A methodology should not be understood as deterministic and prescriptive but rather as responsive and flexible and adaptable according to the investigative needs in various cases.

Some cases are 'self-solvers' (Innes, 2003) or so-called obvious cases where someone is caught in the act or where the perpetrator turns himself or herself in, and in such cases, the evidence comes to the police. However, at the other end of the spectrum are the more complex cases, which Innes names 'whodunnit' (Innes, 2003) or 'search cases', that are more difficult to investigate. In these cases, there is no known link between the offender and victim, or the victim cannot give a statement, is missing or has been killed (van Koppen, 2008).

Stelfox and Pease (2013) describe the investigation methodology in terms of three central decisions. First, is the incident classifiable as a crime, and if so, what crime? Second, what is the evidence which allows the exclusion of people from the population of possible offenders and the provisional identification of an individual as the putative offender? Third, what is the evidence which enables a case to be built against the putative offender? In discussing the first of these central decisions, Stelfox and Pease (2013) examine cases of missing individuals which may later turn out to be murder cases. An example is the disappearance of two Cambridge schoolgirls, where a later report on the investigation singled out the senior officers' delay in treating the incident as critical incident as problematic (Flanagan, 2004).

The second central decision—what the evidence is which allows the exclusion of people from the population of possible offenders—is also crucial, since a premature elimination of the real offender is sometimes a significant problem in an investigation. An example of a case where this occurred is the case of the Yorkshire Ripper, Peter Sutcliffe, where the police received a hoax audiotape thought to come from the killer, spoken in a strong North-Eastern accent. This wrongly distracted the focus from the real murderer (Stelfox & Pease, 2013).

The third central decision considers the evidence which enables a case to be built against the putative offender. Fahsing (2013) explains that 'this thinking style deals with how clever investigators discover new information and new ways of connecting these together through creativity, curiosity and endurance' (p. 138). In this regard, Stelfox and Pease (2013) state that 'the essential problem is to distinguish between information and evidence' (p. 199). Previous convictions, opinions about trustworthiness, and anonymous information are some examples of types of information. Therefore, practical and evidence-based tools such as Fahsing's investigative cycle are vital in helping any investigator avoid running on a default autofocus or autopilot mode and instead strive for greater levels of consciousness.

Investigation plan

The investigative Cycle (Fig. 2 and the hypothesis-driven cross-check matrix (see Fig. 4 below) are fundamental for a process that contributes to developing the content of the investigation plan (Bjerknes & Johansen, 2009; Bjerknes & Fahsing, 2018). According to Bjerknes and Fahsing (2018), all competing hypotheses in a case, defined as all mutually exclusive alternative explanations, should be a part of the investigation plan. The Riksadvokaten (2016) has issued the interesting guideline that investigation management, investigation plans and a culture and tradition of learning and development are the central prerequisites for successful investigations, adding that increased awareness of such fundamental factors will lead to increased quality generally and in individual cases. The investigation plan should be a dynamic tool that fits every case, and in more complex cases it

should be documented to manage the case. If developed correctly, the plan supports good decision-making processes and, in this way, contributes to high-quality investigations. This Riksadvokaten circular also makes clear that although the form of the plan is not detailed, it must apply to the case and, at a minimum, specify appropriate criminal and central evidence, set possible alternative explanations (hypotheses) and describe the execution of the specific task. This circular should be viewed in the context of the pursuit of quality. The Riksadvokaten has repeatedly emphasised that crucial success factors include involvement of senior management of the police, a more binding system in related to quality, and training and evaluation and has recently stressed concern for more quality in the ‘quality circular’ (Riksadvokaten, 2018)

Recently the Iceland Director of Public Prosecution issued a circular concerning the use of investigation plans (Ríkissaksóknari, 2018). In the investigation plan there is no mention of alternative hypotheses testing or documenting all relevant tested possible hypothesis compared to what is emphasised by the Riksadvokaten in the ‘quality circular’ where it is stated that the investigation should not only focus on one hypothesis and but also actively search for alternative explanations.

In cases of greater scope, the typical investigation plan for critical incidents should also underpin and reflect how investigations are organised. Such a model, developed by Nilsen (2012; 2015), is illustrated in Figure 3 below.



Figure 3. Schematic overview of investigation tasks. The investigation Model.

The model illustrated in Figure 3, named Investigation Model [Etterforskningsmodellen] was created by Jon-Andre Nilsen (2012, p. 30) and gives an overview of an investigation and the different tasks within it. It is a system of systematically organising parts of the criminal investigation aimed at dividing the different tasks that need to be done and identifying investigative methods that are necessary and often have to be considered. It does not however show any investigative steps but

identifies where the task may belong and serves as guidance in major criminal investigations. Nilsen describes that he developed this model after working on a complex case and such a model can contribute to faster response and can help investigators know in advance which actions need to be undertaken.

Another supporting mechanism in the investigation is the hypothesis-driven cross-check matrix depicted in Figure 4 below. This is perhaps the most fundamental of all investigation and research methods and concerns checking which different sources respond to the same question and the investigator must undertake an evaluation of how new information matches with the question which is to be examined (Bjerknes & Fahsing, 2018).

Information gap	Action	Priority	H1 (Murder)	H (Kidnap)	H3 (Accident)	H4 (Illness)	H5 (Suicide)
Did anyone have a motive?	Interviews of family and friends	High	Consistent	Consistent	Inconsistent	Inconsistent	Inconsistent
Any signs of illness or decease?	Interviews of family and friends	High	Consistent	Consistent	Inconsistent	Inconsistent	Inconsistent
Any travel planning activities?	Check accounts and records	High	Consistent	Consistent	Inconsistent	Inconsistent	Inconsistent
Any signs of fight or violence?	Crime scene analysis	High	Consistent	Consistent	Consistent	Consistent	Neutral
Does she have friends abroad?	Interviews of family and friends	High	Consistent	Consistent	Inconsistent	Inconsistent	Neutral
	Check						

The Investigative Matrix

Cross-check all evidence across the competing hypotheses with a coloring scheme for evidence evaluation and consistency checks

- Fahsing (2016)

Figure 4. A sample of hypothesis-driven cross-check matrix.

The systematic approach to investigations illustrated in Figure 4, the hypotheses-driven cross-check matrix, has not yet been implemented as a general method of investigation within the Icelandic police. Ask and Fahsing (2018) describe that across-check matrix can be used as a tool that may facilitate approach to hypothesis testing or the Analysis of Competing Hypotheses (ACH). Thus, using a matrix like in figure 4 above can be used to display alternative explanations and conclusions. This is based on the fundamental investigative principle of cross-checking different information from various sources. Aks & Fahsing further explain that first all possible alternative hypotheses are generated. Second the evidence with greatest probative value in relation to a given hypothesis is identified and third a special attention is on identifying evidence that may disprove or weaken the hypotheses. They

further narrate that thoroughly doing that is a part of assisting investigators to achieve and maintaining the standard burden of proof in criminal cases.

National Lead Investigating Officer Development Programme

There has not been a tradition within the police of relying on scientific and academic research; instead, there is a strong tradition of learning ‘on the job’ combined with practical courses focusing on what to do and what not to do (Fahsing, 2013; Hald, 2011). The cases of errors and miscarriages of justice discussed previously make clear that there is a need for improvement in the field of investigations. This is especially relevant because in many of those cases the fault lay in the erroneous conduct of the police during the investigation process. Investigators should be reminded often of the potential effects and consequences of errors in investigations, as in Stein Inge Johannesen’s admonishment quoted above. Therefore, it is a constant and never-ending duty of the police and prosecution services to further develop a focus on quality within investigation in all its aspects. Although there may be various ways of improving a system, one fundamental component is the competency of the people in the system (Fahsing and Gottschalk, 2008). This factor led to the development of Lead Investigator Officer Development Programme in Iceland. Before this training was to commence, a working group had been established earlier in 2017 to prepare a new study programme for police investigators in Iceland. That working group consisted of representatives from the Public Prosecutor, District Prosecutor, Police Chief Association, Association of Prosecutors, National Association of Police Investigators and, at a later stage, the Reykjavik Metropolitan Police.

The training was created to develop higher quality investigations and prosecutions in the Icelandic Police and Prosecution Service. Furthermore, the goal was also to build a shared mindset and methodology between detectives and prosecutors.

One programme was intended for the operational management and strategic development of how to conduct reliable and effective investigations in all cases. Dr Andy Griffiths and Dr Ivar Fahsing developed the programme and delivered it in accordance with internationally recognised research and professional standards. In order to secure local relevance and continuity, two members of the Icelandic Police, Public Prosecutor Halldór Rósmundur Guðjónsson and Detective Inspector Eiríkur Valberg were included as a part of the development team. The programme commenced on 1 September 2017 with 41 participants from 8 different forces within the Police and the Prosecution Service. The first stage of the programme was finalised in March 2018. It was stressed from the beginning that for the continued development of education within criminal investigations in Iceland, evidence-based practice was essential. The programme aimed to develop the existing knowledge and skills of the officers appointed as Lead Investigating Officers. Further aims included enabling effective professional management and coordination of critical and major investigations following

the law, promoting more effective preventive strategies, research and the highest ethical standards, and raising the awareness and skills of police officers and public prosecutors attending the programme (see appendix 1, studyplan). The goal of the programme was to introduce, and as far as possible – implement, the methodology and change of mindset which has been described in this introduction. One of the competences intended after successful completion of the course, was to explain the generic decision-making model, manage and review the initial response to a major investigation. The course was for those officers whose primary investigative role was in cases of homicide, missing persons, rape and other serious organised or complex crime investigation, and participants had to complete an introductory distance learning programme. The programme consisted of a pre-study survey on the Moodle e-learning platform licensed to the University of Akureyri, followed by two months of study with content delivered online, in written articles and through a textbook. However, the training itself took place in the Police Training and Professional Development Centre in Reykjavík.

The course combined lectures and practical exercises to address practical implementation, as well as reflections where participants tried out ideas and methods in their duties at work. An essential element of the approach was to identify and rule out any potentially non-incriminating interpretations of all evidence in a case. This process was to be documented in a written hypothesis-driven investigation plan, and during these three months, Valberg and Guðjónsson visited all participants and offered practical mentoring. Additionally, all participants completed two reflection notes and one more knowledge test. In January 2018, a seminar was held for participants to share their experience during the training, and all participants were asked to complete a post-study survey focusing on knowledge and professional awareness.

METHOD

Evaluation often involves researching the effect of something and can be defined as a systematic collection of data to understand and analyse whether any changes have occurred (Johannessen et al., 2016). The objective of the current research is to evaluate the effectiveness of the National Lead Investigator Development Programme in Iceland. During the programme, three different methods of data collection were employed from the first day of the e-learning component in August 2017 to the completion of the programme in February 2018 (see Figure 5 below). The methods of data collection included a pre- and post-study online survey addressing the knowledge, awareness and current methodological routines of the participants and how they developed from commencement to completion of the programme. These surveys were augmented by two experiments based on real-life vignettes, one on the first training session in October 2017 and one in January 2018. The experiments tested the development in the participants' ability to generate relevant investigative hypotheses in an

initial phase of a potential critical and large-scale investigation. Finally, written reflection notes were collected from participants during the practical implementation and reflection period between the two training sessions (October to January). In that time, the participants were in their regular jobs and were asked to try to apply the new mindset and the new methods in their daily work.

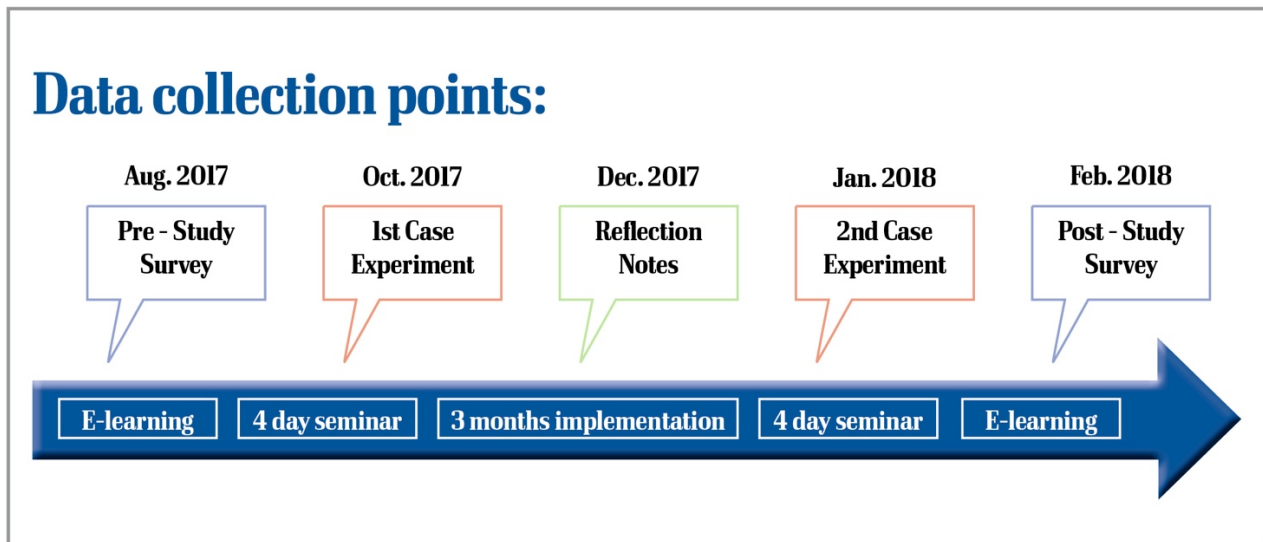


Figure 5. A timeline illustrating how various types of data collection were distributed across the delivery of the Lead Investigating Officer Development Programme.

The study had exploratory research aims to try to identify the investigators' level of knowledge and whether the training had an effect on the investigators' ability to generate hypotheses.

Exploratory Research Aims

1. Identify participants' baseline knowledge in three factors: 1) cognitive biases and risk of tunnel vision 2) relevant active or passive countermeasures 3) an investigation plan and operationalisation of evidence (taken from pre-study and post-study surveys).
2. Explore how these three factors evolved during the course of training.
3. Explore participants' ability to generate investigative hypotheses, both criminal and non-criminal.
4. Discover participants' development both culturally (i.e., how to think and communicate about cases) and structurally (i.e., how to methodologically and systematically approach cases), as well as the organisational side of the issues of culture and structure.

Participants

All the students in the programme were informed about the study and invited to participate, and all accepted participation. A total of 41 participants began the online study in August 2017, and 32 participants completed the entire programme in February/March 2018. Of those participants, 22 were male and 10 females, and 27 were in a police rank while 5 were public prosecutors. Altogether, 17 participants were from the Reykjavik Police, the national units or the District Prosecutor, and the remaining 15 participants were from other police forces around the country. Originally the course was advertised by the Centre for Police Training and Professional Development and was open for general applications from police investigators and prosecutors with two-years work experience in the field of investigations. Participants needed support from their supervisor for their application in addition to writing a one page motivational letter. All those who applied were accepted, a total of 46 participants, however only 41 participants began the study. Participants were not asked to provide their name, age, years of experience or rank, in order to best protect their anonymity. The basic entry criterion for the programme was that participants should have worked for a minimum of two years on the job; however, the average amount of working experience was much higher—between 15 and 20 years. The participants were not asked about their experience in investigating, but many of them had vast experience in investigating complex criminal cases. This is perhaps an issue that could have provided additional information in the survey but was omitted to simplify the approach and focus. There was no selection for the study other than being a participant in the course, and all who applied and finished the preliminary assignment were accepted.

Measures

Pre- and Post-Study Survey

The aim of the study was to measure changes over a training period and thus a baseline measure was needed to see whether the participants were aware of or had knowledge of factors that influence decision-making and threats to objectivity. A survey questionnaire embedded in the online training platform Moodle was used to collect data from the participants (Johannessen, Tufte & Christoffersen, 2016). A pre-survey questionnaire conducted before the training in hypotheses methodology was produced, followed by a post-survey questionnaire at the end of the training. The results were analysed and condensed into three critical knowledge and awareness indicators coded by the researcher. The questions were inspired by the work of Fahsing and Ask (2013) and typical challenges found in the Norwegian Police (Politidirektoratet, 2013). Unclear wording in survey questions can lead to misunderstanding (Johannessen et al., 2016; Haraldsen 1999) or lack of understanding (Eypórsson, 2013). In this study, the questions were asked in English and in Icelandic. Having the

questions in two languages may have helped with understanding for some participants as not all concepts are easily translated from English to Icelandic. Nearly all questions were open-ended in an attempt to obtain rich and complex data that would not be possible with a closed-response question (Cohen, Manion & Morrison, 2018; Eypórssón, 2013; Johannessen et al., 2016; Wærneryd, 1993; Weathington et al., 2010). Using open-ended questions gives no certainty of acquiring good data, as some respondents may not be used to expressing themselves in writing, and it is not unusual to receive standard or clichéd answers (Johannessen et al., 2016). In an attempt to counteract this, participants were encouraged to write as much as they could. They were given ample time to complete the survey which was a part of the coursework that had to be completed and thus motivated participants.

After collecting the survey responses, the next step was coding the answers. Colman (1995) explains coding as interpreting material so that it is manifest or latent. Coding data is not straightforward and there is no simple formula or recipe for turning qualitative data into findings; there is much reliance on interpretation (Cohen, Manion & Morrison, 2018). Analysing concepts or the meanings of words is sometimes called logical analysis, and the process can affect the reliability that is the consistency with which measurements are made (Weathington et al. 2010). First, cognitive biases and risk of tunnel vision were measured by analysing participants' answers to questions about their awareness of factors that can impact detectives' or prosecutors' even-handedness during criminal investigations and were coded as present or absent. Secondly, participants' answers to questions about relevant active or passive countermeasures that can strengthen detectives' or prosecutors' even-handedness during criminal investigations were analysed and categorised as present or absent. A third set of questions asked participants about how to operationalise the standard burden of proof by use of written investigation plans based on hypothesis testing and they were coded as present or absent (Diesen, 2000). The questions concerned individual and situational factors which can impact on even-handedness during criminal investigations, identified in a previous exploratory and comparative study of Norwegian and British homicide detectives (Fahsing & Ask, 2013). Other questions asked about factors related to objectivity and even-handedness of the participant (see appendixes 2 and 3, questionnaires).

The answers within the analysis have been quality-assured through discussions with other students and supervisors, and the results have been compared with a similar study in Sweden (Karlsson, 2019). The questionnaires were analysed and interpreted, including dividing the information and by identifying its message or meaning; some themes were also identified and their meanings interpreted (Johannessen et al., 2016). The material was then analysed by facts stated in the questions from the text material (meaningful quotes were encoded the category present or not present), then the quotes were deductively categorised based on issues that concern awareness or knowledge of risks, countermeasures and operationalising.

Experimental testing of ability to generate investigative hypothesis

As mentioned earlier, two experiments were conducted, one in October 2017 and the other in January 2018 based on real-life vignettes developed by Fahsing (2016). The experiments tested the development in the participants' ability to generate relevant investigative hypotheses in an initial phase of a potential critical and large-scale investigation. The implementation of a case exercise based on two fictitious vignettes previously developed by Fahsing and Ask (2016) concerned missing persons. The vignettes were constructed so that they would generate several hypotheses and featured information about the victim and the victim's relationship to other individuals. Participants gave answers via an online survey platform in the classroom setting. Participants were given the options of murder, kidnap, runaway, accident, sudden illness and suicide. In January 2018, the participants again had a similar (but far from identical) test. This case was a description of a criminal case that was based on a real disappearance. The participants were given the facts of the case and asked to identify the possible categories of what had happened. They were asked to read the case and then write down all the hypotheses they considered to be relevant, defined as theories, suggestions or ideas about what may have happened. Results were then collected from each participant. This was done twice, first at the beginning of the training and then at the end of the training in both the sessions where the participants were present. After the participants wrote down their answers, they exchanged their response papers with each other and reported their colleagues' answers. The task was then to sort the answers into six overall hypotheses that could be considered to exclude each other. The six overall hypotheses are regarded as the 'gold standard' by highly experienced murder investigators (Fahsing and Ask, 2016). In this case, the six what-hypotheses were murder, kidnapping/illegal detention, voluntary disappearance, accident, sudden illness and suicide. The participants' ability to resist tunnel vision and generate as many as possible of the six hypotheses was used as a measure to test whether the programme had any effect on how they think and decide during the initial stages of a potential large-scale criminal investigation.

Reflection notes

From October 2017 through January 2018, participants in this study wrote reflective notes during the practical implementation and reflection period between the two training sessions, when they were tasked with attempting to apply the new mindset and implement the new methods in their daily work. Participants who attended the course agreed to grant access to their online assignments after the course was finished. All participants completed two reflection notes during the delivery of the course that were later analysed. The participants were asked to reflect on the changes and their relevance to their daily professional duties. The responses were analysed into four categories: 1) individual culture

2) organisational culture 3) individual structure 4) organisational structure (see appendixes 4 and 5, reflection notes and analysis of the written reflection notes). The categories were derived from two leading perspectives of how professional bureaucracy organisations work, interact and develop (Hofstede, 2001; Mintzberg, 2000).

The text was interpreted to determine whether any identifiable parts fit within the four categories discussed above, individual or organisational culture and structure. Dividing the text and analysing it in this provided an overview of the situation within investigations participating in the training. The system of working with an online survey and assignments may have increased the quality of the responses and thus the validity of the responses provided by the participants. Since the survey was online, the participants had more time to reflect upon and write about their opinions or their views of the situation

Ethical Dilemmas in the Study

Participants were given information about the study and research and asked to agree that their assignments in the Moodle online learning platform and other material produced as a part of their study would be accessible as research material. Participants were told that they could choose not to participate if they wished, that they could withdraw their consent at any time without having to give any explanation and that their materials would be made anonymous, with all linkable personal information removed. The main dilemma in this study was perhaps my own role as a researcher being too close to the subject and therefore perhaps lacking objectivity without noticing it myself. However, I tried to counteract this through the research methods, receiving continuous supervision from my supervisor and by bearing the more formal code of ethics in mind. Another dilemma may be that my supervisor in this study was also involved in the programme, thus we both were quite vulnerable to wishful thinking. First of all, we had to accept that we did not have the privilege of objective distance. Secondly we had to use methods and awareness in order to maintain some credibility. It's not ideal in any way – but still hopefully better than no data collection and no systematic evaluation.

The Norwegian Centre for Research Data was consulted in regard to this study and the result was that it was approved as organised. The Icelandic Data Protection Authority in Iceland was also notified and consulted with the same results.

RESULTS

Pre- and Post-Study Survey

The pre-study survey asked participants eight questions meant to map their knowledge and awareness of potential threats towards their professional even-handedness, such as time pressure, cognitive constraints, emotions and social stereotypes, as well as potential countermeasures towards such threats like knowledge, training, methods and systems. The same survey was conducted after the completion of the programme. The results were analysed and condensed into three critical knowledge and awareness indicators as measured in September 2017 and February 2018 (see Figures 6, 7 and 8).

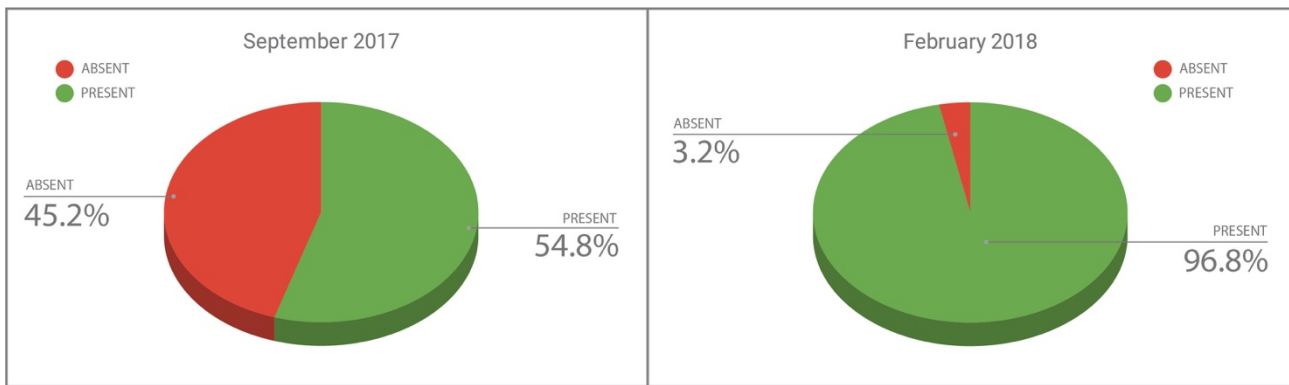


Figure 6. Cognitive biases and risk of tunnelvision and how that evolved during the programme. (N=32)

The participants' awareness and knowledge of e.g. cognitive psychology and risk of tunnel vision was measured by asking them to write down facts that might impact on their professional even-handedness during criminal investigations. As described in the method the answers given was scored as either displayed (present) or not displayed (absent). The scores show a clear development in this indicator as 54,8 % of the participants displayed what was judged as sound knowledge and awareness in the pre-measured as opposed to 96,8 % at the post-survey.

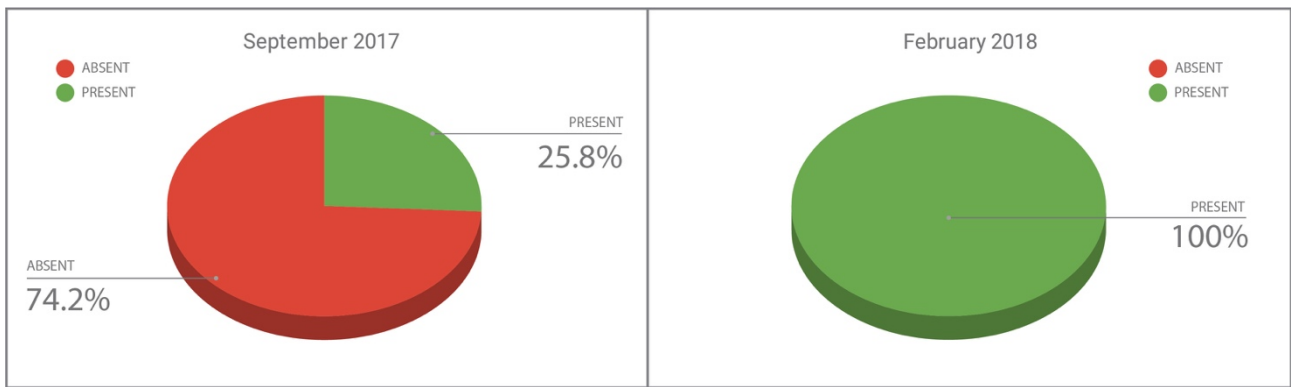


Figure 7. Knowledge of relevant active or passive countermeasures and how it evolved during the programme (N=32).

The participants' awareness and knowledge of relevant active or passive countermeasures to strengthen detectives' or prosecutors' even-handedness during criminal investigations was measured by asking participants to write down facts that could impact their even-handedness. As described in the methods sections, the answers given were scored as either displayed (present) or not displayed (not present). The scores demonstrate a clear development in this indicator, as all the participants in the post-study survey demonstrated awareness of this factor, opposed to only 25.8% of the participants displaying what was judged as sound knowledge and awareness in the pre-study survey.

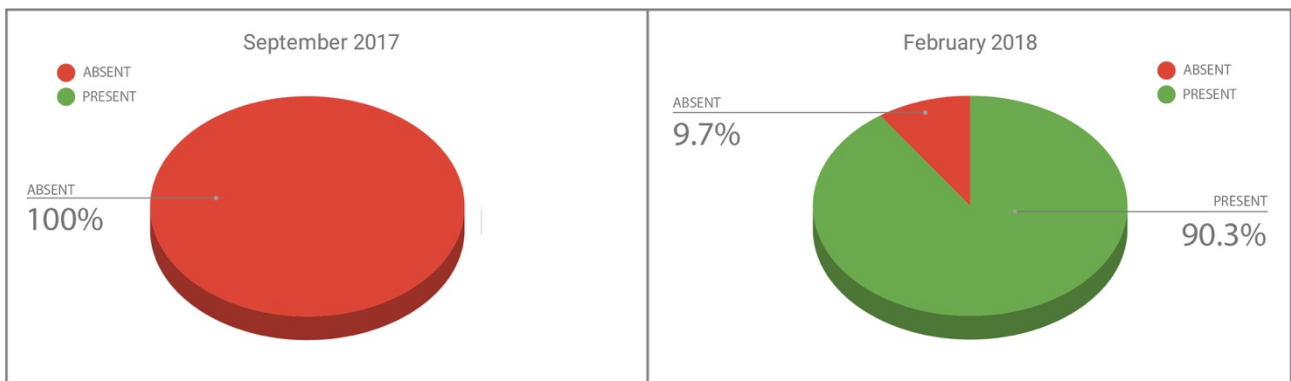


Figure 8. Knowledge of investigation plan and operationalisation of evidence and how it evolved during the programme (N=32).

The participants' awareness and knowledge of how to operationalise the standard of proof through the use of written investigation plans based on hypothesis testing were measured by asking them to write down facts that might impact their countermeasures or even-handedness. As described in the methods section, the answers given were scored as either displayed (present) or not displayed (absent). The scores indicate a clear development in this indicator from none of the participants displaying knowledge or awareness of these factors in September 2017 to 90.3% displaying such knowledge in the post-study survey.

The Ability to Generate Investigative Hypotheses

Knowledge and awareness are important indicators of professional development, but competence will also have to include skills and abilities. This can probably only be tested in real-life contexts, but in order to test at least some of these competencies, the participants were given two different cases and asked to imagine themselves as the primary decision-maker in the investigation. Next, they were asked to identify all relevant and competing investigative hypotheses in the cases (i.e., if one is present the other absent). As is displayed in Figure 9 below, three out of four hypotheses consistent with innocence (i.e., accident, sudden illness and suicide) increased significantly from pre- to post-study measures. As an example, only 26% of participants considered accident as relevant in the pre-study measure as opposed to 92% of the participants in the post-study measure. All six hypotheses are equally relevant in both the cases, since there is no available information that allows for the elimination of any of them. A number of paired t-tests were conducted to compare the number of hypotheses generated in the case delivered at the beginning of the development programme with the number generated for case given at the end of the programme. There was not a significant difference in the overall scores for ($M=51.4$, $SD=37.1$) compared to ($M=71.3$, $SD=23.3$), $p=0.489$, $d=0.6$. However, there was a significant difference for the scores of the number of innocent hypotheses generated: ($M=18.0$, $SD=8.7$) versus ($M=74.6$, $SD=23.4$), $p=0.011$, $d=3.0$. Hence, the effect of the programme on the participants' ability to generate alternative hypotheses to guilt was very strong.

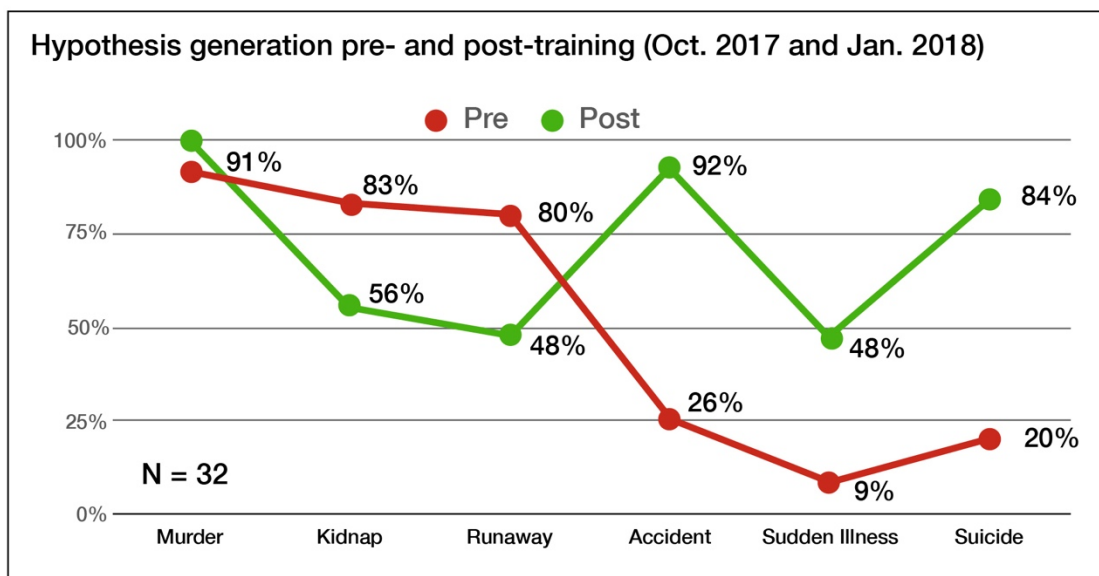


Figure 9. An accumulated number of suggested investigative hypothesis in two case scenarios given early in training (pre) versus late in training (post) (N=32).

Analysis of Participants' Written Reflections

Analysis of the participants' reflection notes written on the learning module approximately four months into the programme (see appendix 5 - December 2017).

Below the reflections are analysed and re-structured into four interlinked and mutually dependent critical dimensions for the delivery of quality investigations and future progress. These dimensions capture how the

- individual detective or prosecutor thinks, reflects and expresses his or her motivation or ideas (individual culture)
- individual detective or prosecutor organises and processes his or her professional tasks and commitments (individual structure)
- organisation, team or collective group of detectives or prosecutors think, reflect and express their motivation or ideas (organisational culture)
- organisation, team or collective group of detectives or prosecutors organise and process their professional tasks and commitments (organisational structure)

Table 1. Representative examples of comments in reflections notes divided into four categories, individual culture, organisational culture, individual structure and organisational structure.

INDIVIDUAL CULTURE	ORGANISATIONAL CULTURE
<p><i>I believe that the benefits of having an investigation plan are that one can document everything that has taken place during an investigation. This enables the detectives to have a clearer overview of the case, creating more awareness, which allows detectives to be more precise and accurate about their decision-making; e.g. they can answer why a certain hypothesis was ruled out, rather than someone else (Participant 1 - detective).</i></p> <p><i>This assignment was for me as a prosecutor very helpful to understand the beginning of an investigation and the challenges that investigators often face. I think creating an investigation plan will help to manage the case and also it will give you the perspective that we often lack because we are so busy trying to solve a case and we forget to check the boxes of what have we done and what do we need to do. If you put in the work to begin with it and do a good investigation plan it will make your job a lot easier later (Participant 8 - prosecutor).</i></p>	<p><i>It is not difficult for organisations to make an investigation plan an integral and necessary part of all investigations. For changes to be made, I believe that we as detectives need to adapt our way of thinking and be more open-minded for change to take place (Participant 1 - detective).</i></p> <p><i>The discussion on the meeting and during this class has led us to believe that we are more conscious about the investigation plan and what needs to have in mind when we are creating it. The investigation plan gives us more discipline during the investigation, more conscious about what needs to be done and what we must keep in mind (Participant 23 - prosecutor).</i></p>

INDIVIDUAL STRUCTURE

*In this assignment, I made a detailed investigation-plan which I worked on for many hours. In smaller investigations in the future, I probably will not make a detailed plan, but I think that I will use the methodology. I will think about competing hypotheses, actions and so forth. The finding of competing hypotheses and the confirmation or elimination of those helps me minimise my own bias. In this assignment, I experienced my own bias and how this kind of investigation-plan helps me to identify that bias (Participant 3 - **detective**).*

*I am also convinced that my tool and format is a good, dynamic investigation and it also provides an opportunity to control the quality of the investigation in an effective way. The tool is also a good platform for the investigation team and the police prosecutor to share strategies as they evaluate evidence. So, you could say that a written investigation plan helps in the investigative decision-making process as well as helping the head of the investigation or unit to keep a track of their thoughts and makes it easier for them to keep the focal point on the needs of the investigation (Participant 6 - **prosecutor**).*

ORGANISATIONAL STRUCTURE

*In my team, we have never used or considered using an investigation plan, even though we are working on a major case, consisting of a lot of documents to go over and many people to interrogate. This situation leads to a lack of communication whereby members of a team are not aware of the roles that each other has whilst investigating a case. This is frustrating because I do not have a clear overview of the progress of the investigation and the things that have previously been done or the things which need to be done in order to complete the case (Participant 1 - **detective**).*

*The old investigation-plans are action-based. Using the "old kind" I made a plan (checklist) where I listed up actions that had to be taken during the investigation. Usually, these actions have been rather narrow-minded and focused on a few hypotheses, or only one. Until now we (the Icelandic police) have not had any single tool focused on an overview of an investigation and evaluation of competing hypotheses. There has not been any tool or a system for documenting decision-making during the management of investigations (Participant 3 - **detective**).*

DISCUSSION

The overall findings of this study indicate that the knowledge, awareness and cognitive ability of the participants increased from before the training to the end. The findings suggest that the study significantly increased the participants' competency in the investigative role. It must be remembered, though, that much of the evidence for this claim was not collected while the participants were working on actual investigations. The findings are nevertheless a strong indication of a change of mindset amongst the participants. This is indeed promising, but further research is both important and necessary to determine whether these developments will become a fundamental part of Icelandic legal procedure and the investigative mindset. Generally, the use of hypotheses within investigations among participants before the training was not a common activity for maintaining a structure for quality. Moreover, making a written investigation plan with alternative hypothesis was nearly unknown, or at least it did not seem to be used systematically. For some of the participants this was therefore an epiphany.

The pre-study survey indicated that the participants had, on average, a clear bias towards criminal hypotheses, whereas the post-study survey demonstrated a strong change in the participants' ability to generate hypotheses related to innocence, including accident, sudden illness or suicide. This has been identified in previous research as a difficult and crucial competence for any investigator (see, e.g., Ask, 2006; Rachlew, 2009; Brodeur, 2010; Fahsing, 2016). Previous research by Fahsing and Ask (2016, 2017) has indicated that police officers have a strong guilt and crime bias and struggle to identify even obvious explanations consistent with no crime or innocence. Although there are many factors involved, the dramatic change observed during the programme indicates a promising shift in perhaps the most important asset for investigative quality – namely how investigators think. This finding should therefore not be underemphasised. Knowledge and awareness are essential and can form a vital stepping stone for development and high performance. However, in order to form robust professional competence, knowledge and awareness must be transformed into new skills, routines and actions. This transformation is often so moulded, implicit and complex that it is hard to measure in a meaningful way. The two decision-making tests based on real-life missing persons scenarios with a clear risk of criminal homicide—while far from a test of robust professional competence—were nevertheless relevant tests of the participants' ability to not prematurely narrow in on the most likely *criminal* solution before other possible alternatives are ruled out by reliable evidence.

The survey results indicated that this way of thinking and dealing with more systematic and conscious evidence-building was completely new to the participants. This gives various indications of increased knowledge and awareness which might help reduce risks of threats toward their

professional even-handedness. The findings illustrated in Figures 6, 7 and 8 demonstrate a firm and significant change in all the knowledge and awareness factors.

Finally, the reflection notes gave an insight into the culture and structure of the individual and the organisation. The results underpin and highlight the above findings and are quite promising when it comes to the possibility of implementation of the new mindset and its facilitating components. It is apparent that further analysis of the material could be influential in identifying which parts within the individual and organisational culture and structure could be improved and which are already working well. Further research into this area could be beneficial for the organisation in general and could assist decision-making towards a new and evidence-based approach on a national level.

Even though the number of participants was relatively low and the methods of measurement were somewhat unreliable, the evaluation clearly indicates that the development programme was a success with great potential for future capacity-building both for police investigators and prosecutors. The pre-study and post-study surveys as well as the hypotheses decision-making tests combined with the reflection notes demonstrate that there is substantial room for improvement both within training, investigation methods and national routines. The findings indicate that the participants seem to have embraced the new measures for decision-making such as the cross-check matrix as well as the investigative cycle. The present programme and the evaluation of it is therefore an important step towards a more dynamic and evidence-based development at present and in the immediate future.

A recent study in Sweden (Karlsson, 2019) did not have as positive and clear findings as the present study. In the study participants perceived that the hypothesis testing methodology made investigations more objective and legally secure. However, the hypothesis testing methodology was used in only a few cases and the limited use was due to the test group's perception of gain in the investigations; they saw gain of the hypothesis testing methodology in cases involving more than a single investigator as well as more objectivity and legal certainty. But they also wished for more support and time when using the hypothesis testing methodology. After comparing the test group and control groups a small variation was detected. The test group showed higher awareness of what could affect objectivity in criminal investigations and thus counteracting objectivity concerns whilst fulfilling the operationalised requirements. The case exercise showed that investigators generally develop tunnel vision which leads to a focus on proving guilt. The test group could to a higher degree identify various hypotheses of not guilty and all the participants in the test group found at least one hypotheses of not guilty.

Possible reasons for this different result in the Karlsson study in Sweden and in Iceland may be the fact that the Icelandic development programme was much more robust, but also that it involved various high-level stakeholders within the police and the prosecution service. The importance of the fact that key stakeholders were involved at a very early stage cannot be overstated.

Furthermore, the training was delivered by leading international experts within the field, and the programme had a long duration with a reflection period in between on-site learning sessions. All these features and concepts allowed for a deeper learning effect. Follow-up studies investigating whether the effects of the programme are lasting by comparing participants with others working in the same field would be interesting. A crucial issue is how to develop national expertise and competence to drive further development.

The principal aim of this thesis was to explore the knowledge and awareness of investigators about factors that may affect their judgment and decision-making in relation to a criminal investigation. The exploratory research aims were divided into four parts. First, identifying participants' knowledge in three factors: cognitive biases and the risk of tunnel vision; relevant active or passive countermeasures; investigation plan and operationalisation of evidence. Second, exploring how these three factors evolved during the course or training. Third, exploring participants' ability to generate investigative hypotheses both criminal and non-criminal. Fourth, discovering participants' development both culturally (i.e., how do you think and communicate about cases) and structurally (i.e., how do you methodologically and systematically go about cases), as well as the organisational side of the same issues (culture and structure).

It may perhaps not be surprising that the results of the training were excellent. If the study had involved students learning an unfamiliar language, the results might similarly have found indications that the students learned very much and gained new knowledge. However, the present study has provided new indications of the situation of knowledge in this issue at the time. Furthermore, since it only includes those police officers and prosecutors who attended the course, caution should be exercised in generalising from the findings in the study. Consequently, this study should be seen as an indication of the situation and an impetus for further training and study in the area. The findings suggest that training may improve the ability to generate and test investigative hypotheses in criminal investigations. A hypothesis methodology contributes to a more structured method that protects due process and this methodology has been based on psychological research (Tversky & Kahneman, 1974) and legal issues (Diesen, 2000; M. Klamberg, 2013) before being developed further (Ask & Alison, 2010; Ask & Fahsing, 2018; Fahsing, 2016; Fahsing & Ask, 2016; Fahsing & Ask, 2018). It seems that participants increased their awareness and knowledge and were able to generate more alternative hypotheses by the end of the program. That is perhaps not a unique or unexpected result of training. A more exciting part is whether the added knowledge and training will have a long-term effect on quality within investigations. Further research such as a study of the use of alternative hypotheses in real cases could be interesting and beneficial. Furthermore, it could be interesting to measure decision-making effectiveness in detail and as Fahsing (2016) explains, adequate generation of relevant investigative hypotheses and investigative actions assists in the outcome of real criminal

investigations and reduce the risk of bias (Alison, Doran, Long, Power & Humphrey, 2013; Ask, 2006; Macquet, 2009; D. Simon, 2012). The findings are an indication of the situation at the time of the study and as such are an indication of the individual and organisational culture and structure at that time.

This study further demonstrates that training is potentially beneficial for investigators' ability to develop relevant investigative hypotheses and then to undertake adequate actions or follow lines of investigation. While this study is limited in its nature, it is a useful contribution towards higher-quality investigations in the country and as such hopefully valuable for the police and the participants. Hopefully it may be an inspiration for future studies of different elements of investigations, their quality, and the further development of investigators' abilities.

Towards Increased Quality in Investigations

Let us reflect on the hope of Stein Inge Johannesen that the police would learn from his case and respond by examining how we can further increase quality in investigations. Quality can be increased somewhat through investigators' conscious attention to decision-making and hypotheses and awareness of the human defaults that influence our actions and decisions, sometimes leading to tunnel vision, group thinking, or biases. This awareness and honesty about defects in the human decision-making process may be the first step toward greater quality, and the second step is then continuous training to avoid the obstacles in the process.

So, what does this all mean for the future of investigations and further developments? What do the results of this study mean in terms of development towards higher quality at the individual and organisational level? How can we progress toward greater investigative quality in general, and how should we implement the next steps? A crucial milestone is of course to identify where we are now and point to the way forward. There is an individual answer to this question as well as an organisational one. It is apparent that individuals must spend more time calibrating their mindset and thought process regularly so that they are always aware and ready to act if something is troubling the course. The course and mindset should always aim at quality. Then the question remains, do we need another definition of quality, since the development of the investigation method and mindset seems to be constant? A partial answer here could be that those working in an investigation should regularly be trained and assessed on whether they understand the fundamental factors in a quality investigation. This is a continuous effort in the field of aviation, where some fundamental strategies for avoiding failure are cemented into the system. There is a combined need for the individual and organisations to be synchronised in this effort. Further developments are also linked with being constantly involved with the evidence-based development within the police globally. This is in line with other services

that are global in nature, such as medicine, where there is constant development and scientific testing of what works and what does not work.

Having established a direction for the future, we must bear in mind the complexity of change and be realistic about how difficult both individual and organisational change can be. Fahsing (2016) emphasises the need for the police to develop systematic countermeasures against investigation errors both at an individual as well as an organisational level. Thus, it is important for the Icelandic police to adopt a system that keeps us using and developing the methods presented in the training programme. This change will not happen overnight but should be sought one step at a time in the effort to make constant progress towards greater quality within investigations. We also need a support system, since the fundamental human tendency is to find it difficult to process negative or disconfirming information.

It may also be essential that the entire organisation develop together; that is, the entire investigation department and the police and prosecution should be focused on the same view and the same approach so that there are no cultural or even organisational barriers hindering development in this area. However, perhaps the quickest and simplest manner of development is for individual investigators to change their approach and mindset to acquire the proper mindset of investigating thoroughly and professionally by seeking all alternative hypotheses and using all available tools. If this change is achieved, we will always be able to claim that the investigation process was a quality one. Just as we expect medical doctors to do everything they possibly can to fight for the health and life of our loved ones, it is the process of doing everything possible and accurately that is the fundamental issue and aim of police investigations. In such a way we should always strive to do everything humanly possible to ensure that our investigations are of the highest quality possible.

The participants in the program expressed the value of the theoretical framework that was strengthened by the length of the program and the reflection period aided by mentors. The participants found these aspects beneficial for individual and organisational culture. The managers of the police and the Public Prosecutor of Iceland play a vital role in further developing these skills and abilities within the organisation in general in the future. The findings were however clear that individuals were able to increase their awareness and ability to generate and test investigative hypotheses in criminal investigations. To maintain these gains, the individuals and organisation as a whole must focus on developing and maintaining this competence. Further studies are necessary to gain a more in-depth and continuous view of available knowledge to generate investigative hypotheses.

The hypothesis methodology involves an investigation plan documented with investigative measures generated, based on the hypotheses identified in the case. Thus, this methodology requires following various investigative measures to test the hypotheses and analyse the results, perhaps leading to decisions about other investigation measures or changes in priority of the measures. Using

the hypothesis methodology requires investigators themselves to be aware of their own biases and prejudices and therefore to have theoretical knowledge about the psychological traps in human decision-making.

The results indicate that most participants in the study exhibited remarkable advancement in their knowledge of hypothesis methodology. The study indicates strongly that before the training, knowledge of hypothesis-based investigation plans was almost non-existent, but that it had advanced by the end of the programme. Whether this greater knowledge has developed into expanded use of such a methodology and how that investigative method is implemented are important questions for future study.

As Fahsing (2016) and Gawande (2010) point out, knowledge has exploded, bringing complexity which requires group cooperation for success. Systematic methodology is thus required to counter all the possibilities of faulty decision-making. Gawande emphasises that we need to find and recognise failures before devising solutions to problems and implementing solutions. There is undoubtedly a need for increased use and awareness of countermeasures and how to act accordingly in situations where we make decisions.

Limitations

Pre- and post-test control group designs are well suited to investigate effects of educational innovation (Dugard & Todman, 1995). However, single-group pre-and post-test research design may have some methodological concerns because of factors that may influence findings (Marsden and Torgerson, 2012), so it is not a perfect measurement tool. The best way to observe behaviour and measure change is probably by longitudinal observation. Direct observation was not a part of the present study, and therefore all the measurements undertaken face the limitations of indirect measurement. This affected selection, collection and interpretation of the data. Nevertheless, a sound and transparent methodology has been followed. This is like watching the world through a pair of binoculars and not being able to see what is outside of the lenses. Such individual variations were not specifically measured in the study.

Another limitation is that being a colleague of some of the participants might have affected their responses and thus in some way affected the results. It is not uncommon for researchers to have influences they may not be aware of affecting how they interpret a text (Johannessen et al., 2016). This is a challenge to be aware of when researching one's own field. It is therefore crucial that the research is protected against any influence (Rachlew, 2010). In an effort to counteract this limitation, the participants in this study were all offered anonymity and asked to consent to participate voluntarily. Furthermore, to prevent a so-called experimenter effect or Hawthorne effect, the participants did not know exactly what variables we were looking for and which factors we included

in the evaluation. The Hawthorne effect (Mayo, 1952) is a term used to describe a phenomenon where the presence of the evaluator positively changes research participants' behaviour. Assessing the impact of such researcher reactivity on an evaluation is difficult, but researchers need to acknowledge its potential presence in their work.

However, all the psychological effects that have been discussed earlier as possible effects on investigations also apply to the researcher. In this case, the researcher's lack of objectivity might have affected the outcome of this study. Therefore, it is essential to adhere to the methodology, acknowledge limitations and not overstate the findings or their importance.

Conclusion

Based on the history of failure resulting in numerous miscarriages of justice, discussed at the beginning of this thesis, there is a need for a countermeasure that can be actively used to prevent future errors in the justice system. Although the findings of the present study are not revolutionary (training in an area often produces greater knowledge in that field), nevertheless the study can perhaps encourage further research in this area that could lead to greater support of the whole judicial system in terms of directions for the future. The effects of the training are perhaps limited to individual changes on the part of investigators and prosecutors and not a systematic change of approach as seen in Norway. To get there, a consensus among leaders such as the Public Prosecutor and all the managers of investigations is needed. A systematic change would involve a link to the general or global changes in investigative approaches, involving the now agreed-upon new approach to interviewing and changing ideas about the importance or unimportance of confessions.

There is room for improvement in Iceland in a more systematic approach towards quality in investigation. Somehow the approach here has been based too much on what the individual decides to do or not to do. To compare this to the field of medicine, it would be as if doctors were not up to date in the recent developments in their fields. If we had the same approach in aviation as in investigations, there would be more incidents of failure in that field. The troubling question is why we have chosen to take different approaches to quality in these different fields.

It has been a privilege to observe the systematic and professional approach to investigations that is being taken in the Norwegian police and to witness and be a part of such a development within the field of investigations in Iceland. This was perhaps a small step for us in Iceland, but hopefully the first step towards a more significant development as part of a global response to the humble request of the innocent suspect Stein Inge Johannessen (Rachlew, 2009) for a police culture more focused on defining and developing the real qualities in criminal investigations.

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Appendix 1 - Studyplan

Studyplan - National Lead Investigating Officer Development Programme



Mennta- og starfspróunarsegur lögreglunnar

National Lead Investigating Officer Development Programme

Attendance criteria

This course is for those officers whose primary investigative role is that of homicide, missing persons, stranger rape and other serious, organised or complex crime investigation. Before appointment to the Lead Investigator Development Programme candidates must complete a introductory distance learning programme. Candidates must be able to read, write and communicate in English and have a working personal computer with Internet accesses and webcam.

Course aim

To develop the existing skills of officers appointed as Lead Investigating Officers to enable the professional effective management and coordination of critical and major investigations in accordance with the law, more effective prevention strategies, research and the highest ethical standards.

Course objectives

On successful completion the officer will be able to:

- Interpret key legislation and understand the effect it has on investigations, the evaluation of evidence and police legitimacy
- Understand the role and responsibilities of an Lead Investigator and the investigative philosophy that all investigators should adhere to
- Conduct a community impact assessment, making appropriate recommendations to the local Commander(s)
- Manage and review the initial response to a major investigation, implementing fast track actions when required
- Explain the generic decision-making model and what it entails for the Lead Investigator and the members of the team
- Create policy files (investigation plans) and record the strategic and tactical decisions made during an investigation
- Plan and manage an effective communication strategy, exploiting the use of the media and other forms of communication facilitate harm reduction as well

- as investigative opportunities
- Explain the role, responsibilities and capabilities of the various partnerships and specialist roles involved in a major investigation
- Plan and manage the investigation in accordance with the model of investigation, prevention, relevant legislation and national policies
- Manage the performance of teams and individuals while incorporating health and safety, welfare, legislation and policy
- Evaluate investigations and identify potential development needs and proactive preventive measures

Study duration, progression and methods of delivery:

- 1-2 months self-learning and pre-qualification module - partly internet based
- 4 days residential introductory course involving lectures and practical exercises
- 2-3 months of practical application of new models, methods and knowledge with documented self-reflection, peer to peer evaluation, identified development outcomes and needs
- 4 days residential further development course involving lectures and practical exercises
- 1-2 month practical application of new models, methods and knowledge with documented self-reflection, peer to peer evaluation, identified development outcomes and needs

A total duration of approximately 6-7 months.

Assessment processes

All candidates must complete:

3 reflection notes (max. 2000 words) on personal or national investigative practice based on literature from the literature list

2 sessions of short questions and answers related to the literature or the lectures

2 sessions of documented peer to peer online discussions

Self-assessment, peer to peer assessment and assessment by a designated mentor during the course resulting in an approved plan for individual and organisational development

Mentored and assessed exercises based on cases and practical application of the investigative philosophy

Participants who fail to meet these assignments will risk to exclusion from further participation the study.

Literature:

Ask, K. and Fahsing, I.A. (In press). Investigative Decision-making in Psychology and Criminal Investigations Griffiths, A. and Milne, R. (Eds). London: Routledge.

Brookman, F. & Innes, M. (2013) The problem of success: What is a 'good' homicide investigation?, *Policing and Society*, 23:3, 292-310, DOI:10.1080/10439463.2013.771538

Diesen, C. (2000). Beyond Reasonable Doubt: Standard of Proof and Evaluation of Evidence in Criminal Cases. *Scandinavian studies in law* (40), 169-180.

Monckton-Smith, J., Adams, T., Hart, A., & Webb, J. (2013). *Introducing Forensic and Criminal Investigation*: SAGE Publications. Sage.

Stelfox, P., & Pease, K. (2005). Cognition and detection: Reluctant bedfellows? In M. J. Smith & N. Tilley (Eds.), *Crime science: New approaches to preventing and detecting crime*. Cullompton, UK: Willan.

Westmarland, L. (2013) 'Snitches get stitches': US homicide detectives' ethics and morals in action. *Policing and Society*, 23:3, 311-327, DOI:10.1080/10439463.2013.784313

2 articles of choice from the *The Journal of Homicide and Major Incident Investigation*.

Appendix 2 - Questionnaire

Pre-study survey - Questions

Forkönnun þátttakenda - Pre-entry survey to be completed by all participants before September 7th.

Sæl öll.

Það er mjög mikilvægt að þið svarið þessari könnun áður en námið hefst. Vinsamlegast notið ekki hjálpargögn eins og bækur, google eða vini. Könnunin telur aðeins 9 spurningar og við gerum ráð fyrir að þátttaka taki ekki lengri tíma en 30-40 mínútur. Farið verður með svör ykkar sem trúnaðarmál.

Með fyrirfram þökk!

Dear all - it is very important that you answer this survey before you start the study. Please do not use any assistance such as books, google or friends. It is only 9 questions and we estimate a maximum of 30-40 min to complete it. Please keep in mind that all of your answers will be treated with confidentiality.

Thanks a lot!!

SPURNING 1 - Question 1 -

Hvaða þættir, ef einhverjir, gætu haft áhrif á hlutlægni rannsóknarlögreglumanna eða ákærenda meðan á lögreglurannsókn stendur? If any, what factors might impact on detectives' or prosecutors' even-handedness during criminal investigations?

SPURNING 2 - Question 2 -

Hvaða einstaklingsbundnu þættir, ef einhverjir, gætu haft áhrif á hlutlægni rannsóknarlögreglumanna eða ákærenda meðan á lögreglurannsókn stendur?

If any, what individual factors might impact on detectives' or prosecutors' even-handedness during criminal investigations?

SPURNING 3 - Question 3 -

Hvaða aðstæðubundnu þættir, ef þeir eru til staðar, gætu haft áhrif á hlutlægni rannsóknarlögreglumanna eða ákæranda í lögreglurannsóknum.

If there are any, what situational factors might impact on detectives' or prosecutors' even-handedness during criminal investigations?

SPURNING 4 - Question 4 -

Hvað, ef eitthvað, geta rannsóknarlögreglumenn eða saksóknarar gert til að draga úr neikvæðum áhrifum þeirra áhættuþátta sem nefndir voru í fyrri spurningum?

If anything, what can detectives or prosecutors do to reduce the negative impact of such risk factors mentioned above?

SPURNING 5 - Question 5 -

Hver er reglan um sönnunarbyrði í sakamálum?

What is the standard burden of proof of guilt in criminal cases?

SPURNING 6 - Question 6 -

What is the the standard burden of proof in criminal cases?

SPURNING 7 - Question 7 -

Með hvaða hætti geta rannsóknarlögreglumenn eða saksóknarar séð til þess að reglan um sönnunarbyrði sé höfð í huga við rannsóknir sakamála.

How can detectives or prosecutors best put the standard burden of proof into practice in criminal cases?

SPURNING 8 - Question 8 -

A. Fjallið um tilgang skriflegrar rannsóknaráætlunar. Describe the reason for using a written investigation plan.

B. Notar þú skriflega rannsóknaráætlunar? Do you use written investigation plans?

C. Ef þú notar ekki skriflega rannsóknaráætlun, fjallaðu um hvers vegna skrifleg rannsóknaráætlun er ekki notuð. If you do not use a written investigation plan, then describe why not.

SPURNING 9 - Question 9 -

- A. Fjallaðu um notkun rannsóknatilgátna við rannsóknir sakamála. Describe the use of investigative hypotheses in investigating criminal cases.
- B. Fjallaðu um hvernig þær eru prófaðar. Describe how investigative hypotheses are tested.
- C. Hver er tilgangur þess að prófa tilgátturnar. What is the purpose of testing the investigative hypothesis?
- D. Hvernig er hægt að halda utan um tilgátuprófanir. What tools are available to keep track of your investigative hypotheses?
- E. Vinsamlegast takið fram ef þú notar ekki tilgátuprófanir og einnig ef þú heldur ekki á sérstakan hátt utan um þær og hvers vegna. If you do not use investigative hypotheses, and do not have any tools to keep track of your investigative hypotheses, then please describe why not.

Appendix 3 - Questionnaire

Post-study - Questions

Könnun - Post - study survey to be completed by all participants.

Sæl öll.

Það er mjög mikilvægt að þið svarið þessari könnun til þess að unnt verði að meta áhrif námsins. Vinsamlegast notið ekki hjálpargögn eins og bækur, google eða vini. Um er að ræða 8 spurningum og við gerum ráð fyrir að það taki ekki lengur en 30-40 mínútur að svara þeim. Farið verður með svör ykkar sem trúnaðarmál.

Með fyrirfram þökk!

Dear all - it is very important that you answer this survey so that we can evaluate the impact of the study. Please do not use any assistance such as books, google or friends. It is only 8 questions and we estimate a maximum of 30-40 min to complete it. Please keep in mind that all of your answers will be treated with confidentiality.

Thanks a lot!!

Question 1 -

Hvaða þættir, ef einhverjir, gætu haft áhrif á hlutlægni rannsóknarlögreglumanna eða ákærenda meðan á lögreglurannsókn stendur?

If any, what factors might impact on detectives' or prosecutors' even-handedness during criminal investigations?

Question 2 -

Hvaða einstaklingsbundnu þættir, ef einhverjir, gætu haft áhrif á hlutlægni rannsóknarlögreglumanna eða ákæranda meðan á lögreglurannsókn stendur?

If any, what individual factors might impact on detectives' or prosecutors' even-handedness during criminal investigations?

Question 3 -

Hvaða aðstæðubundnu þættir, ef þeir eru til staðar, gætu haft áhrif á hlutlægni rannsóknarlögreglumanna eða ákæranda í lögreglurannsóknum.

If there are any, what situational factors might impact on detectives' or prosecutors' even-handedness during criminal investigations?

Question 4 –

Hvað, ef eitthvað, geta rannsóknarlögreglumenn eða saksóknarar gert til að draga úr neikvæðum áhrifum þeirra áhættuþátta sem nefndir voru í fyrri spurningum?

If anything, what can detectives or prosecutors do to reduce the negative impact of such risk factors mentioned above?

Question 5 –

Hver er reglan um sönnunarbyrði í sakamálum?

What is the standard burden of proof of guilt in criminal cases?

Question 6

Með hvaða hætti geta rannsóknarlögreglumenn eða saksóknarar séð til þess að reglan um sönnunarbyrði sé höfð í huga við rannsóknir sakamála.

How can detectives or prosecutors best put the standard burden of proof into practice in criminal cases?

Question 7

A. Fjallið um tilgang skriflegrar rannsóknaráætlunar. Describe the reason for using a written investigation plan.

B. Notar þú skriflega rannsóknaráætlunar ? Do you use written investigation plans ?

C. Ef þú notar ekki skriflega rannsóknaráætlun, fjallaðu um hvers vegna skrifleg rannsóknaráætlun er ekki notuð. If you do not use a written investigation plan, then describe why not.

Question 8

- A. Fjallaðu um notkun rannsóknatilgátna við rannsóknir sakamála. Describe the use of investigative hypotheses in investigating criminal cases.
- B. Fjallaðu um hvernig þær eru prófaðar. Describe how investigative hypotheses are tested.
- C. Hver er tilgangur þess að prófa tilgátturnar. What is the purpose of testing the investigative hypothesis?
- D. Hvernig er hægt að halda utan um tilgátuprófanir. What tools are available to keep track of your investigative hypotheses?
- E. Vinsamlegast takið fram ef þú notar ekki tilgátuprófanir og einnig ef þú heldur ekki á sérstakan hátt utan um þær og hvers vegna. If you do not use investigative hypotheses, and do not have any tools to keep track of your investigative hypotheses, then please describe why not.

Appendix 4 - Reflection notes

A complete transcript of written reflections notes presented individually on the e-learning module approximately four months into the programme (December 2017)

Participant 1 - Detective, National Unit or Reykjavik Police

I recently had a meeting with Halldór Rósmund and four of my colleagues, who are also a part of this study course. We went over an investigation plan that some of my colleagues are using whilst investigating cases. This is not a plan that I am familiar with; however, after this meeting, I am now aware of how beneficial using this type of investigation plan can be.

I believe that the benefits of having an investigation plan are that one can document everything that has taken place during an investigation. It enables the detectives to have a more precise overview of the case, creating more awareness, which allows detectives to be more precise and accurate about their decision-making; e.g. they can answer why a particular hypothesis was ruled out, rather than someone else.

For an investigation plan to be successful, the police organisations in Iceland need to coordinate the use of such a plan and should view it as a necessary tool in all major crime investigations. I believe it is far too common for detectives, in Iceland, to work on cases according to their standards and style of work. Some detectives may use an investigation plan, while others will use a completely different approach when it comes to organising their work. For example, I recently started working at a new workplace, where I mainly investigate cases regarding economic crimes. I work in a team, which includes an experienced detective, a business specialist and myself.

In my team, we have never used or considered using an investigation plan, even though we are working on a major case, consisting of many documents to go over and many people to interrogate. This situation leads to a lack of communication whereby members of a team are not aware of the roles that each other has whilst investigating a case. This is frustrating because I do not have a clear overview of the progress of the investigation and the things that have previously been done or the things which need to be done to complete the case. At the meeting that I had with my coworkers who showed me the investigation plan, I was able to view the organised work style that detectives can use during an investigation by simply customising their work style and practising the same methodology.

It is not difficult for organisations to make an investigation plan an integral and necessary part of all investigations. For changes to be made, I believe that we as detectives need to adapt our way of thinking and be more open-minded for change to take place. As I previously stated I mainly investigate economic crimes and therefore, there are not many opportunities for me to make hypotheses as for the cases that I work on usually beginning with changes from a law firm, supported by documents related to the criminal offence that is undergoing an investigation.

Participant 2 - Detective, District Police Force

The investigation plan that I showed, and talked to Halldór about, was from a case (investigation still ongoing) regarding a young girl and indecent sexual conduct against her. The investigation plan helped me organize the investigation so I could check what had been done and what was left to do. The plan was and is a live document and is necessary for investigations that either take the time or has many „steps“.

When I made the plan I thought it was as good as it could get. I was wrong. Since it was a relatively simple case I didn't have any hypotheses although I did put down the accusations step by step and checked whether it was verifiable or not. Afterwards, I came to see how it would benefit the plan to have it more visually appealing and the checkboxes (or hypotheses if that applies) graphical. That way the plan would be easier to read either for additional investigators or if there was a break in the investigation. All in all, I learned from this assignment and will keep developing a practical, easy to use investigation plan.

Participant 3 - Detective, District Police Force

Individual development

I think it is very interesting how this “new kind” of investigation-plans (cross-check matrix), where we try to imagine all competing hypotheses in a criminal case and all actions (questions) to confirm or eliminate them, has opened my eyes for things that I have not considered when using the “old kind” of investigation-plans. The old investigation-plans are action-based. Using the “old kind” I made a plan (checklist) where I listed up actions that had to be taken during the investigation. Usually, these actions have been rather narrow-minded and focused on a few hypotheses, or only one. Until now we (the Icelandic police) have not had any single tool concentrated on an overview of an investigation and evaluation of competing hypotheses. There has not been any tool or a system for documenting decision-making during the management of investigations.

The finding of competing hypotheses and the confirmation or elimination of those helps me minimise my own bias. In this assignment, I experienced my personal bias and how this kind of investigation-plan helps me to identify that bias. The case I was working on and made my investigation-plan for, concerns a man with serious stab wounds. In the real investigation one hypothesis was never imagined and never completed, but while setting up competing hypotheses in my investigation-plan I stumbled on a new hypothesis that she was a suspect and that she had caused the injuries. It seems unlikely, ..., but it shows that working with competing for hypotheses works and no hypothesis can be excluded entirely.

In this assignment, I made a comprehensive investigation plan which I worked on for many hours. In smaller investigations in the future, I probably will not make such a plan but I think that I will use the methodology. I will think about competing hypotheses, actions and so forth.

Me and two of my colleagues, who are also in this program, met, discussed and criticised our investigation plans (cross-check matrix). We tried to imagine all possible scenarios (competing

hypotheses) and all possible actions that we could use to eliminate or confirm those hypotheses. We discussed how we would make such investigating plan at the beginning of in the future.

During this assignment, we decided to make our investigation-plan from the information that we had in the very beginning of the investigation before any work had been done. We discussed the actions that had to be taken in an investigation concerning the competing hypotheses and how deep we could or should go into those actions in the investigation-plan. We discussed the difference between using many questions (actions) to get information about a specific matter and how it could be addressed using just one question. For example, we could ask many questions like, “did X have a car”, “did X use public transportation”, “did X walk”, or we could use only one question to cover them all, for example, “how did X travel”. This will probably always be debatable.

One of our ideas was that the detective, who was in control of a major investigation, should make an investigation-plan. We, the team, would meet, discuss and develop that plan further. Then we would use it to debrief others about the investigation and develop the plan as the investigation progresses. We agreed that we would save our investigation-plans in one place. Then they would be accessible for similar cases in the future and further development. We also agreed that a document concerning decision-making in an investigation could be linked to the investigation-plan. One idea was that there would be one document that included an investigation-plan and a document over-viewing decision-making for every criminal case. The document for decision-making would have to include information about who took which decision and when. The document would also include why a decision was taken, to make a certain action and why a decision was taken to exclude a particular action. We did not design the decision-making document further. We also made a note of that it has to be clear from the beginning who is responsible for the document and updating it in cooperation with our SIO.

The police usually document most of its actions for example “this was called in . . . we drove this way and saw . . . and when we arrived at the scene we saw . . . and because of . . . we decided to arrest. . .”, and so forth. Why shouldn't the police document every decision that is made and every hypothesis that is challenged during a major criminal investigation?

In the morning of 19th of December, the three of us (me, x and y) held a meeting on Facebook with Eiríkur Valberg and Halldór Rósmundur. We had sent Eiríkur and Halldór our investigation-plans a few days earlier in an e-mail. Eiríkur and Halldór discussed and asked questions about our plans and gave some advice. Eiríkur and Halldór gave us good reviews.

Participant 4 - Prosecutor, District Police Force

At the beginning of this assignment, the participants in the XX- district teamed up (a prosecutor (XX) and two investigators (XX and XX). Each of the investigators made an investigation plan, based on a recent case they had been involved in. In the first case, an SUV was driven off a pier in a small town close to Akureyri. The driver, his wife and their daughter died. In the second case, involved a young man with two knife-wounds, one in front at the upper chest and the other in the lower back. Although I was familiar with both cases, I had not been directly involved in the first one, but in the second one, I had been more actively involved.

After briefly discussing cases and selecting those two, each of the investigators drew up an investigation plan. The format used for the investigation plan was the cross-check matrix we developed in the October-session. After the plans had been drafted, we met again to discuss the cases, the matrix and how the matrixes were functioning. The matrixes were set up as if it was the beginning of an investigation, with just basic information, enough to develop a competing hypothesis and identifying the info-gaps. At first, one of the matrixes seemed to be more action-based than based on the info-gaps/competing

hypotheses. After further discussing the cases and the functions of the matrixes, the investigator decided to alter his approach, focusing more on info-gaps than actions, and by our second meeting to discuss the cases and the investigation plans, the matrix was functioning as intended. As the matrix was designed it allows you to filter various components, e.g. actions taken (in relation to info-gaps), prioritizing and allocating tasks within the investigation, as well as evaluating evidence/information as consistent/inconsistent with the particular hypothesis. These meetings were quite useful and, in both cases, resulted in some changes in the investigation plans, further developing the hypotheses and revealing additional info-gaps and revealed some biases/presumptions that had not been considered. Therefore, the investigation plans seem to allow for a good, dynamic investigation, that can also be used for quality control, shared strategies and evidence evaluation, as well as being a basis for review, either formal or peer-to-peer.

Yesterday we had a Skype/Facetime meeting with Halldór and Eiríkur, who had in advanced reviewed both investigation plans. They seemed pleased with the result but inquired if we had incorporated or considered the 6 C's Generic Investigative Cycle or the 6 Investigative Questions in the investigation plan. We did not expressly incorporate those in the investigation plan, but by identifying the info-gaps you are thinking along those lines. After reviewing an actual case, using this cross-check matrix, I believe it can be quite useful and it forces you to be more disciplined and focused in your approach to the investigation. It can also give a graphic view of the development of the case as the info-gaps start to fill. It appears to be more practical in serious/extensive cases, but if you have completed a few investigations using this kind of a tool, you already have a blueprint to use in future cases.

However, given the circumstances in a small investigative unit, where lack of manpower is constant and the lead investigator is up to his elbows from the very first instance (victim, crime scene, etc.) it can be hard to slow down and give yourself time to draft an investigation plan such as this one instead of focusing and ploughing on in action-mode. One of the investigators said that even though he did not make this kind of an investigation plan (documented) right at the beginning of his investigation, he did so mentally. Right from the beginning he started to develop his hypothesis and identifying info-gaps and that must be considered a step in the right direction.

What I found lacking was a tool to document the decision-making process (decisions by investigators as well as prosecutors) during the investigation but I'm not certain if it should be a part of the same document as the investigation plan. If the reasons for making certain decisions regarding the case are not documented at the time of the decision-making, the knowledge you acquire further along in the investigation could taint your reasoning later on, and as such decrease the quality of the investigation.

Participant 5 - Detective, National Unit or Reykjavik Police

I, x, y, and z, have been meeting regularly to discuss our assignments. Today we also had a meeting with Halldór Rósmundur. It is always interesting to hear others views and Halldór opened our eyes and leads us to the right right direction when we get lost from the right path.

In my work as a detective I always use an investigation plan in my investigations. In my division we have a document, an investigation plan that we have been using for some months now, with good results. This document „The Investigation plan“ starts as a plan of what to do in the beginning, but it changes during the time of the investigation. We also put summaries of all interrogations and hearings into the document. Results of all studies and data are inserted in the document. When the investigation is finished the investigation plan is not a plan anymore, but a document that shows what we have done, results of researches and evidences. Then we use that document as report of the investigation. The document is flexible from the beginning and not carved in stone. It can be changing all the time because you get new informations and things sometimes are not as they appear in the beginning. Sometimes the investigation reveals that the person charged is innocent. Sometimes the complainant tells the truth, but

sometimes the whole lot it is a lie. Sometimes part of it is true, and a part of it is not true. Sometimes the complainant lies because he does not know better but sometimes, he lies intentionally. Sometimes the complainant don't even know what happened or if something illegal happened at all.

Sometimes people experience the same event in different ways. I won't even start to write about the potentials in the defendant's testimony. There are infinite possibilities in all areas of an investigation, so you must make a plan and use it to get a complete overview of the case. I try to identify all the necessary investigative hypotheses and actions as soon as possible. I discuss hypotheses and actions with other detectives in my division and with the prosecutors. It helps to get other perspective on the issues. I can't say that we directly use The Investigative Cycle model in criminal investigations. But through the investigation, we, collect, check, connect, construct, consider, and consult. The Investigative Cycle and the investigation plan are good guidelines for the investigation.

We use the PEACE Model of investigative interviewing. We use the golden questions: What, where, when, who, why and how and we also use TED questions. I use excel working with data, but I have not been using excel or system like ACH matrix for evidence evaluation. We can always do better so I am ready to try it. We don't keep a record of how, when and why decisions are made in an investigation. That is something I believe we will do in the nearest future and is on my bucket list, of work.

We can control a lot in an investigation. But what we can't control everything. We have to little time and to many cases. There is always pressure to finish the investigation in as little time as possible. This affects the quality of the investigation and mistakes are made even though we all try to do our best.

Participant 6 - Prosecutor, National Unit or Reykjavik Police

Yesterday, December the 19th, I sent a documented and dynamic investigation plan to Halldór Rósmundur in a case I am supervising as a police prosecutor. The accusations in the case are against a former employee of a firm in the IT-business here in Iceland who allegedly stole important and valuable business secrets before he resigned.

Because how sensitive the investigation is at this stage I haven't managed to share and discuss the plan with other participants on the study. Instead, I have discussed it with Halldór Rósmundur who thinks it is a thorough plan which identifies all the necessary investigative hypotheses and actions even though I didn't use an investigation matrix or shared cross-checking tools. Instead, I defined the offences in the complaint as well as those who are likely to be collaborators with the former employee of the above-mentioned firm and therefore complicit in the alleged unlawful activity.

So, you could say the investigation is rather accurate and reflects what needs to be done in the investigation, or an effective investigative strategy, based on the data and information available at this level of the investigation. But it is not for me to manage the resources allocated to the investigation or who has the key roles in the process.

a) Practical dilemmas in the case

Personally, I believe I have identified most of the necessary investigative hypotheses and actions. But you can never be sure about in advance whether the main suspect will begin providing information that could incriminate other associates in the act described in the complaint or in related matters. Such information can affect decisions made in the many aspects of the investigation plan, for example, the examination of the crime scene/scenes and identifying evidence. It could also help us preventing the disposal of other evidence, mostly electronic data in computers owned by the offenders. So, it is necessary under the development of the investigation to revalue the investigation plan constantly with the investigation team and the head of the unit.

By making an investigation plan, even though it is not a matrix, you have to try to predict all possibilities or build hypotheses. By doing so you can ensure in-depth a detailed understanding of the relevance and reliability of the material gathered in the investigation. By doing so it is also easier to ensure that the evidential test has been implemented to all the material gathered in the investigation as well as ensuring the interpretation of the same material correctly.

b) How you have designed and organised your plan.

I am also convinced that my tool and format allow a good, dynamic investigation and it also provides an opportunity to control the quality of the investigation in an effective way. The tool is also a good platform for the investigation team and the police prosecutor to share strategies as evaluate evidence. So, you could say that a written investigation plan helps in the investigative decision-making process as well as helping the head of the investigation or unit to will keep a track of their thoughts and makes it easier for them to keep the focal point on the needs of the investigation.

Participant 7 - Detective, District Police Force

In this assignment, I used a case that I have been investigating for the last few weeks.

In the beginning, me and my partner discussed and tried to find out every possible explanation there might be for this. In doing so, we were finding hypothesis and based or work around them. For example: Was there a malfunction in the car; we have to have the car inspected and also talk to other people who have driven it etc. Did the driver have a sudden illness; we will have to get medical data, talk to witnesses, conduct an autopsy etc.

What we did not do was sitting down and taking time to set up a Matrix in a formal and organized way with a competing hypothesis, information gaps and what we could to fill those gaps.

We are still investigating the case, and for this assignment, I sat down with fellow students X (Detective Inspector) and Y (Lawyer). Before that, I had made a Matrix with the competing hypothesis and information gaps – where I both had filled in every hypothesis we had had, and what questions we had already asked ourselves and what measures we had taken to answer them. In this brainstorm, I didn't find more hypothesis, but I recognized a few more information gaps and possible ways to fill in others.

When discussing the matrix/investigation plan with X and Y they also pointed out a few more possible information gaps and ways we could gather information. They also double checked if we had taken some measures and why we had not done some other things – which was good because then I had to argue and explain why some things would not be possible and why we thought they might not add to the investigation.

During our discussions, we didn't find more basic hypothesis, but we agreed that it could be good to “split up” hypothesis we already have later in the investigation – if our investigation leads us that way.

We also agreed that it is good to set up a matrix/investigation plan as soon as possible and that the Excel-form we used could be used to keep track on what to do, what are the priorities and when things are finished. Another thing I found out to be helpful was the possibility to use the Information-gap list of questions to share strategies. For example, had I talked to almost all of the witnesses on the pier, getting their story. My partner was then to interview one witness who had also been there and asked me what questions I had asked the others. I then had to list these questions down and hand them to him. But when I made the matrix, I saw it had all these questions as information gaps (and for these questions we had “interview witnesses” as to how to answer them. If my partner would have had access to this matrix (and if it had been made during the first phase of the investigation) he could have opened the list of questions and copied it to his question sheet in a few seconds).

Now that we have collected most of the basic data we first found out we needed for our investigation it will be interesting to evaluate it and how it fits to different hypothesis – which hypothesis has strong support and which not, for we still have not solved the case.

Participant 8 - Prosecutor, District Police Force

The case that we choose to do a dynamic investigation plan about is a rape case. The challenge with this case is that both the victim and the suspect are retards. The violation is to have taken place at the suspects home.

We – me and X lead detective made an investigation plan to try to figure out the scope of the investigation, what needed to be done now and the what needed to be done next. What resources we need to make, who to question and what data to obtain. With the goal to be able to prove that there was a violation. In short – XX followed this investigation plan and as the case went on by arresting the suspect and taking him to medical examination and then interrogate him. He also had to secure the crime scene and take the victim to the hospital in Reykjavík.

Being the prosecutor in the early stages give me the opportunity to watch and learn and also to make a suggestion in that will help when I do take the case to court. This particular case was very unique in that way that both the suspect and the victim are retards and are there for in an extremely vulnerable position. I think to make investigation plan will help to manage the case and also it will give you the perspective that we often lack because we are so busy trying to solve a case and we forget to check the boxes of what have we done and what do we need to do. If you put in the work, to begin with it and do a good investigation plan it will make your job a lot easier later on.

Xx and I sat down with Halldór on December the 14th and Halldór pointed out to us to add in the plan the theories from the beginning. This assignment was for me as a prosecutor very helpful to understand the beginning of an investigation and the challenges that investigators often face. In this case, it was the status of both parties that had to be established through evaluation of their mental health.

Participant 9 - Detective, National Unit or Reykjavik Police

For this assignment, I sat down with xx, xx, xx, all detectives and xx and Halldór Rósmundur, both lawyers. We discussed the assignment and shared our thoughts on the matter. When designing and organising my investigation plan, I tried implying the matrix taught at the course and found it very helpful. I especially found helpful the whole visualization part of it. At the unit where I work, sexual offences, we do have a well set up and organized investigation plan which always changes as the case goes on and new information arises. However, it is not visual like the matrix we are being taught to use and implying it would be a great addition.

We discussed the practical dilemmas and found that, although not necessarily the case here, some issues might arise concerning that. For example, if there are very strict procedures to follow when investigating a case, and not much room for a change of mind, too little time to investigate, lack of resources and lack of understanding from the “people above”, or the management of the police force. As the investigation then goes on, the 6-C’s (Generic Investigative Cycle and the 6 Investigative Questions) are good to have in mind. To collect, check, connect, construct, consider, and consult is something that I think most of us do but may have a hard time explaining or putting into words. Much like the basketball player whom you ask to describe and explain who he or she takes his or her shot, it’s just there.

Participant 10 - Detective, National Unit or Reykjavik Police

On Friday, December 15. I and four of my colleagues, which also attend the management course at MSL, met with Halldór Rósmundur to discuss the investigation plans, which we use in our work. I presented to them a few of the investigative plans that I have used.

Since I started working at this office, investigating serious economic crimes, I have developed my investigating plans very much. When I first started working here, I had a group leader, which had many years of experience in investigating economic crimes. He did not use any specific investigating plan, and seemed to have the next steps only in his head and appointed assignments to us without explaining why that needed to be done. To have more oversight of my tasks I started to develop my own “to-do” lists. Since then I have learned a lot and now. I manage my own cases and have an investigating team working with me, for now, we are a group of three and I more or less lead the investigations.

Through the years, I have tried various tools in the planning, such as Microsoft Word, Mind Manager and Microsoft Excel. I find that Excel is the best tool for day to day work, as you can share the document with others in my team and changes can be seen right away but also for the possibility of more than one worksheet in the same document for piecing tasks down to smaller challenges. For strategic planning, I use Microsoft Word and try to keep that document updated regularly. However, I find it best to have the plans in only one document, because multi-documenting can be confusing and may cause you to forget to register or update.

As I mentioned before, I presented a few of my tools that I most frequently use for my investigation planning, at the meeting with Halldór Rósmundur and my colleagues.

I was glad to see that my co-workers liked my plans and I could give them good ideas on how to manage large cases. Today my “to-do” lists have developed to a „3.0 version“, so to say, since my first “to-do” list which was very simple. In my lists, I always have at least a task column, accountable employee column, priority column and a remark or feedback column. It then depends on the case, which, or if, additional columns need to be added. On our meeting with Halldór, we discussed how we could better these planning documents even further to work cohesively with the hypothesis method we are studying in our course. For example, to have a colour-code system on how well the tasks are applicable to the hypothesis we are trying to exclude or prove. Color-coding is likely to make the plan, even more, visual and effective.

I would have liked to see or hear ideas for investigative plans from my colleagues so that I could also learn from them but they seemed not to have a written plan or other tools to manage the cases. However, I think this meeting, and my presentation, will encourage them to design their own or develop even further the methods that I have been building. One of the ideas we discussed was how we could implement the *Shared-processing model* in to our written investigative plan. We agreed that we most likely use this model or at least the concept of it unconsciously in our work but it would be interesting to use it in a more structured way to better our work.

We also discussed how we could share the methods that we are learning with other co-workers. We agreed in that experience, that there is a little lack of interest from other employees to develop and learn new methods for their work. However, since we most often work in groups and teams, we would like to see more planning and structuring in our investigation plans so that the work gets more effective.

As I have said in prior reflections, I think that this course and study in MSL, regarding these hypothesis methods and more structured plans, is very important. I think that we need to slow a bit down on the “what to do” and focus even more on the “why we do”. That does not automatically slow investigations down but rather will be likely to speed up the aftermath regarding the prosecution process, at least I hope that the investigations would be even better and have fewer loose ends if we have better oversight

and documenting. I am excited to improve my methods even more and develop my “to-do” list to a 4.0 version.

Participant 11 - Detective, District Police Force

It's been a few years since I and my detectives took up the process of making investigation plan at the start of investigating a case, and it is expected to do so by the department's supervisors. Investigation plan should be conducted in certain cases, which are considered to be serious and, where appropriate, complex. I have used such an investigation plan for several years and have had a good experience. Investigation plan is such that when a detective is doing them, he goes on to discuss the matter independently, what is open, what to do, how to do it, what has happened, and so on, and suggests a possible outcome. Then there are a number of hypotheses, the whole thing is expected, and thus, the detective gets a better overview of what to do, what is done and how is best to investigate cases in the future. Part of it is to be in good contact with the legal representative at our police unit.

An investigation plan is, therefore, a great tool that is very useful and is constantly evolving, and changing of course from case to case, depending on their progress as long as the investigation continues. This project we have been doing is writing an investigation plan and looking after it in all ways, it has been very successful. It's always good to review what you do and discuss with colleagues, so you get new ideas and open up new visions. My colleagues in my detective unit also agree and make use of this tool very well. An investigation plan is, in fact, a checklist for detectives so they do not forget about anything and what needs to be done because the detective's burden is huge, they are even fully investigating a serious case when another serious case comes along and the other case they were working on is put on hold. It is good that the investigation plan is available and well done, it is much easier for the investigator to take up the case where it was gone and without any problems. This gives a better overview and better organization, and another detective can easily get into the case just by reviewing the research plan. By doing a good investigation plan, you get a much better overview of the matter and, in the same way, the quality of the investigation will be much higher.

Participant 12 - Detective, National Unit or Reykjavik Police

Based on a case you investigate or supervise please make a documented and dynamic investigation plan. Share and discuss this plan with minimum one and maximum of four more participants on the study. Discuss both a) practical dilemmas in the case and b) how you have designed and organised your plan. E.g. have I identified all the necessary investigative hypotheses and actions? And b) did my tool and format allow for a good, dynamic investigation which allows for quality control, shared strategies and evidence evaluation?

I did an investigation plan on one of my cases that is about a mother who left Iceland with her child without telling the father. I put in the investigation plan to locate the mother, find out what possibilities the Icelandic police has to get the child back home. But first was there any crime committed. Then the plan changed frequently. Firstly, because the mother returned to Iceland without the child. Then I put in the plan to interview the mother and see if we should put her in custody or travel junction or let her go after the interview.

She was released and told us the reason she left was to make a better life for her child. The plan changed once more when she moved back to Iceland without the child to work here. She was interviewed again and released. At this point, we knew that the child was with her present husband in xx, and most likely they were escaping because of problems that the husband had here with the police.

At this point I had three theories; I didn't put them in the plan but was aware of them. The first theory was that she had left to find a better life, second that she was escaping the husbands' problems or third

did she go to force the father of the child in some sort for a new custody agreement. The practical dilemma, in this case, was that the child was in xx and the mother in Iceland. I did identify the hypotheses in this case. The actions in the case were interviews with the mother. We did contact the child in xx, video phone call. We sent a formal legal request to xx. Now 6 months later the xx government hasn't answered this request. We then finally arrested the mother and put her in a travel restriction, (banned from travelling from Iceland)

The investigation plan helped in this case, N.B. The case had already started when I made the plan. Even though I didn't do a visual hypothesis, in this case, I was well aware of them and utilised them. The problem with this is that in most of my cases I cannot do these sorts of plans in the beginning or at least that is what I think. However, doing this project I have been thinking about how I can solve that and have some ideas, but they are in early stages.

I talked about this plan and how to develop it mostly with one colleague (xxx) and then Halldór Rósmundur sat down with me and we talked about the plan and how I need to improve certain aspects of it and how to develop my ideas of how the plan should be. One of the ideas is to have on the wall some sort of images of the 6 C's and a way to visualise the hypotheses.

Participant 13 - Detective, National Unit or Reykjavik Police

In the beginning, I thought this task was a bit confusing. But I suspect that it is done knowingly so that participants discuss the problem in order to hear others' understanding of the project and to be more in touch with the solution of the project.

Well. I and another participant in the course compiled an investigating plan for a project we are currently working on. This is a case of organized crime asylum seekers from xx living in Iceland. The case extends to many countries with money laundering, Id fraud, illegal employment and theft. I and xxx are in charge of this investigation that has lasted since the end of October. xxx is a prosecutor who has been assigned to the project. We took the opportunity to do an investigating plan for the continuation of the project and discussed it between us. The benefits of the investigating plan were unequivocal to get a better overview of the case and how to share assignments with the investigators working the case. The objectives of each factor were also set and what should be expected regarding the results. After that, a reassessment was made of what had been done and not and, in the end, examined regarding continuing work. After reassessment with other colleagues, we realized that by considering using 6 C's Generic Investigative Cycle more effectively we might have had more visual investigating plan.

After compiling the program and discussing it between us, we discussed this with our colleagues who are also in the classroom and afterwards we called Halldór to discuss this with us.

Participant 14 - Detective, District Police Force

Having started the management course in police investigation has, in my opinion, improved me as professional expert in the police investigation in two ways. It has expanded my thinking of investigation. I think more out of the box and I have come more alert concerning overview as a leader it is easy losing vision being busy. I am more open-minded letting my co-workers help in investigation detail work since some take a lot of time and effort.

Bringing theories in an early stage of investigation and use „brainstorm meetings“ with colleagues to list up all possible theories and then close them one by one instead of working only after one theory which seemed at the beginning of investigation most likely the right one is a better solution. Then close theories one by one after having them researched. In the end, only one or few are something to use as material for deciding for the prosecutor if to take the case to court or dropped. Doing investigation like

this we are preventing wrong results based on wrong decisions and keeping all tracks warm and preventing evidence from getting lost.

I have realized better how important it is for the leader of an investigation to be ready with answers when asked in trial why some theory were not checked or done. Also, ready to answer why this was not taking longer as a theory and why other theories were taking in further process. As an example: One of the suspects is no longer suspected after the research work which proved he did not have the possibility to commit the crime. Having safe proof of that we can close the theory about him as a possible suspect. Other theories might get stronger after having one closed and make fewer left as the final theories.

Having started this project has made me and my two colleagues who are leading the criminal investigations for the police district more alert about the necessity of close cooperation. It has made us more united and increased understanding between us. We have taken considerably big and complicated criminal investigation and have listed up a work plan in a document which we change in line with the process and how the investigation is getting bigger and more information increases.

I'm taking care of the investigation of the case above and I and my two colleagues who are also in the program have meetings two or three times per week and we look at how the investigation is going and we update the document. By doing this we are all informed how the process is at all times and we can come up with ideas about the next steps in the investigation. Also, we can by doing this explain better at any time for the prosecutor how the investigation is processing and he can give us input. I'm sure about that we will take this new method of work to be the future procedures in my district but of course it will sometime take to adjust like all other good new tools in the box.

Participant 15 - Detective, District Police Force

I and xx worked together on this project, but we are working on research in memory and we did not have any issues that we found fit in the project for research. We chose to tell us that we will be involved in 2007. A case that is uninformed and concerns an xx-year-old boy who was driven and killed because of a trauma he received. Not even the smallest mountain climb, but we did not want to solve the problem in a short period of time. Let us consider the matter as managers and give us three timetables and what we would like to do in the matter. We set up a Matrix in excel and processed word document for explanation. This was how we went to Halldór Rósmund. There was nothing else to hear about him, but he was pleased with our work and we had a good chat about ideology from a variety of perspectives.

I see the great advantages of using tools like this to work on a system like this, but also that there was some work to do with it. But the tool obviously immediately exceeds that work. And, quite obviously, tools like this make me feel good, to keep track of tasks and tools for nothing to be forgotten. Also to keep track of ideas for works that do not necessarily have to work immediately but may be considered when more information is received. Even to exclude what you do not need to do. Not only to exclude hypotheses, and possibly a lot of work-saving already.

What we did not register with us and not used in writing are tools like H-in six, but we were cleverly using both unconsciously. Imagine that a device like this is something last that might be better in writing in front of the eyes when working with this. To make sure that nothing is forgotten. And there is some that nothing has been forgotten. Another thing I learned about this project is the tools that this needs to be practised and practised, for the first step, it will last for the least time. I think the work at first is high vs. What you care for but very fast is the rate to be reversed and the benefits of work at the outset will be effective in working savings.

Participant 16 - Detective, National Unit or Reykjavik Police

We were three in the group and examined recent drug crimes. This criminal case is today very open because there is no one suspects about it and not know how the case went this route. The case is about a large number of drugs which was found in the field.

We took the research plan and reviewed it we also look into what could be added to the examination by view it from many sides. This criminal case offers the possibility of using varied hypotheses. At the meeting with Halldór, we presented him the research plan, the hypotheses and our conversation about the case. Hallór pointed out the models we could use in this criminal case. This model could be used to isolate further and exclude the hypotheses and narrow down the points which need further examination. The decision was to test the case in other models and further expand the hypothesis with the aim of excluding and isolating what would be considered better.

Participant 17 - Detective, National Unit or Reykjavik Police

My first thoughts that we here at „my xx- department“ don't use hypotheses at all. Often, we have a pretty good idea who is the main suspect and sometimes we can see how the case lies. After I started this course I thought about and tried to use hypotheses, but it was very difficult. It was difficult to come up with hypotheses that were relevant. So i guess we don't need or can use hypotheses that often. The organisational structure in my workplace is maybe a little bit different from other police organizations in Iceland. My organizations mostly focus on bigger financial crimes and cover the whole country. We work mostly in groups and investigation can take a long time.

My/Our investigation plan is more what we need to do and how we are going to do it. More like „Collect-check-connect-construct-consider-consult“. Here at „xx -department“ we usually work in groups so we talk about the case throughout it all, so we have a good opportunity to go over the case and find the best solution and strategy. So, we go over the investigation almost on a day to day basis. When we work in groups, I think it is less risk of being bias. It is very difficult to come up with a good investigation plan or strategy in our jobs because every case is different and there are so many variables. It's very good to hear and learn about bias and how to work with bias thought. My organization (xx) is always encouraging us to get a better education, more knowledge and more perspectives on our work field so as a group I think we are growing in our jobs.

Participant 18 - Detective, National Unit or Reykjavik Police

When the course began, I've had an old case on the top of my mind. This case involves a hit and run accident where a xx-year-old boy on his way home was killed. The case was a very difficult project for investigators and police had little luck throughout the case. The case is still unsolved, and the police was highly criticized by the media and the public. When this case came up, I was a young and inexperienced investigator. There for xx and I, who both worked on this case at the time, decided to take another look at the case with the experience we've required through the years and the principals we've learned on the course thus far.

We chose to take a further look at three dates and times in the case and set up a matrix with an investigation plan with the facts we knew at that time. Went through the investigation cycle and the six investigative questions. We decided to take realistic approach regarding the work force we had at the time, but the entire investigation department only worked on that case for a long period. In the beginning of the case the police receive a notification that a xx-year-old boy has had a hit and run accident. The only witness in the case was driving behind the car that ran into the boy. The witness said that it saw the car was driving at a medium speed when it hit the boy who went up in the air and landed on the street. The driver drove quickly from the scene without stopping or looking into what had happened. The car was described as a dark station wagon. There is no number or part of it. There is no other evidence that the event has given way. The witness does not seem to know well about the type of car and seems to be in a lot of shock.

Conditions on the scene were very difficult. Pitch black and thick rain. During the investigation of the crime scene, the only evidence that was found was some broken glass, likely from the headlight of a car. No other evidence was found. Possibly the crime scene should have been closed for as much time as needed, a tent should have been placed over the crime scene even though it's a busy road in our town. Police officers did a house-to-house search but without results. Perhaps the quality of the house-to-house inquiries could have been better to make sure there were no other witnesses. Late the next day a police officer notice a car that has a broken headlight. The car was green and wasn't a station wagon. The driver and the owner of the car is Polish and tested positive with alcohol in his system when arrested. The police were unable to connect the car directly to the scene or boy. While this possibility was investigated, no other were investigated. There for perhaps the police had a slight tunnel vision. The suspected driver had an untrustworthy statement and changed his testimony during the investigation process and that didn't help the police or himself.

It is important to state that we did not consider the case in question to shed the police's working methods during the investigation of the case or the police investigation. We both participated in the investigation of the case and experienced lack of resources and luck during the investigation. We found it useful to discuss the matter with Halldór Rósmundur and get his view on the case. After our discussions, we found many cultural and operational shortcomings in our institution that need to be addressed, especially concerning investigator training. We find this course to be a great beginning to avoid a similar outcome in the future.

Participant 19 - Detective, National Unit or Reykjavik Police

The cases we are investigating at The District Prosecutors office are usually more extensive than we see at other Districts. We investigate financial cases where the amount of data is usually huge compared to what we are used to in other investigations. The positive side is that we have fewer cases, and therefore more time to work on each case. Most of us work in groups of two or three where detectives and business or account experts work together. I work in a group of two detectives and a young and motivated guy with a master's degree in business. The group has good dynamics and my feeling is that the police should do more of group work with involvement of specialists. The norm in other districts is that we work alone, and only together in bigger or more serious cases.

December 15th Halldór came to our office and met with me and three of my colleagues. We examined at two investigative plans, one old and one new, which one of my colleagues had made, but he actually calls it a To-Do list. The plans are very well organized and thorough Excel documents. They were made of several sheets that showed suspects, witnesses, to-do lists and tasks, and what employee is responsible for what task. This is a document my colleague usually makes in his investigations, but not something that every investigator uses at our office. The document is well organised and a great foundation for an investigative plan. What we agreed on is that it has action points but is lacking the hypothesis part and some documentation on the hypothesis, changes, exclusions or new hypothesis. Then to make it more visual we could have tables with colours, green and red. The colours show visually which hypothesis is the strongest and which is the weakest. We agreed on that investigators should work with standardised investigative plan. It would increase professionalism and quality of work and decrease the likelihood of mistakes. We learn a lot from our colleagues, but we regularly discuss the lack of standardised working procedures. Good standardised procedures are highly important, they would be good for the overall quality of work and decrease the risk of faulty practices.

Participant 20 - Detective, National Unit or Reykjavik Police

In this assignment I took an "old" investigation plan that I used when investigating large and complicated drug case. In short, the drugs were smuggled from xx to Iceland via. xx. There were three incidents in

whole and plenty of suspects and witnesses. The investigation was ongoing for two years and took place in Iceland, xx, xx and the xx (countries).

The first dilemma we noticed was that the ring leader dwelled in xx and we had no connection with authorities there. Another dilemma was that the mules travelled through xx. But that was solved very soon because it was no problem to establish connections between us and xx.

The investigation was started after the Police received truthful information regarding this. Immediately I made an investigation plan. The setup is like this:

- Short description about the case
- Alleged charges
- Suspects
- Witnesses
- Planned investigative actions
- Hypotheses
- Diary/journal

One could say that this investigation was both reactive and proactive. The information gave us picture of the method the group used to smuggle the drugs. However, the picture was not perfect so we, the investigators, were always discussing why, what, when, how etc. and therefore making hypotheses. We did not write them down or put down in the investigation plan. Why we did not write them down I can't say. But in big investigation like this, where there are at least two detectives investigating, there are always discussions and speculations about the case. I realize that it is not a good practice, but we must take into account that we had not been introduced to hypotheses and decision making at that time.

However, the making and use of the investigation plan did a lot for us and the investigation. After every meeting and discussion, we put down next steps, planned actions etc. But the most useful tool in this investigation was the diary we kept. Because in the aftermath one can't remember everything that happened in the investigation or when or who did what. So if compared together; this investigation (investigation plan) to the 6 C's Generic Investigative Cycle: We consulted with each other and seniors during the investigation so there was always a second opinion on the investigation plan, we collected all available data, we checked that the data was reliable, data and information were in connected. For example, financial-and phone data were made understandable. We did not emphasize on the construct factor. But we did discuss what do we not know and who else could be involved in the case. We did not emphasize on the Consider factor. I discussed this assignment with my colleague xx and Eiríkur Valberg. In those discussions we discussed hypotheses and how we think of them. We agreed that in most proactive investigations like the one mentioned above, investigators are constantly making hypotheses, regarding the investigation, in their head but no one writes them down.

Eiríkur also asked me a critical question regarding the investigation plan. "Did you write down, or put down on paper, why you made, or made not, decisions. Needless to say, I did not. I think the reason for that is that the benefits of it had not been introduced to me.

Participant 21 - Detective, District Police Force

The case concerns sexual offenses, but both the victims and the suspect have mental disabilities. The offense took place in the home of the suspect. I prepared an investigation plan after I studied the matter to understand what the scope of the study had been and what would be done next. What investigative resources should take, who needs to be interviewed and what data I would need to collect. Since there were two individuals involved, it was necessary to prove that a violation had been committed.

In the beginning, we had to arrest the suspect at his home and transfer him to a medical examination carried out at the police station. Also, investigated the forum and retained potential evidence and recorded them. It was necessary to transfer a victim to a medical examination in Reykjavik and to take care of her clothing and evidence. We had to interview the suspect, the victim and the witness. The victim and the suspect both told the police that sexual intercourse had taken place in the home of the suspect, while the victim said it had not been with her will, the offender stated that she had been willing to do so. There were two people as witness, the victim boyfriend who was with the victim before and after the incident and, on the other hand, the head of a mental health care agency who has been with both the victim and the suspect at the health care. The reason for to interview the person from the agency was to get a clear picture of the victim and suspect mental illness. Attempts were also made to gain benefits from municipal and state institutions without success. Because of that psychiatrists were asked to get psychiatric assessments on both, in order to determine whether she had the ability to counteract the act and the suspect to determine whether he was culpable.

Doing an investigation plan helps me to keep up with the extent of the matter and its progress. I change the program as per the case, record what was done, when it was done and who did it and what to do. The heads of the office have asked the investigator to do an investigation plan at the beginning of each case and send the program to the lawyers of the office. It may be a challenge to investigate some issues that relate to social factors such as, for example, for the disabled. It may be because of prejudice, shyness or incompetence about how to deal with them. It has been my best to focus on the crime itself and to work with the factors that arise in the study, whatever they are.

Participant 22 - Detective, National Unit or Reykjavik Police

We went through at a recent drug case that xx is investigating. xx had done a research plan for the case. This research plan was conducted in usual manner on a form used here at xx Police.

At first, we took the investigation plan that she had made in connection with the case and reviewed it, with open mind to what could be improved and what could be added to the investigation of the case. We really ripped the case wide open and viewed it from many sides. The good thing about the case we are looking at is that it is relatively open, there is no suspect in it and we really don't know what happened.

When we began the consideration of the matter, we decided that this case would be a good one to put in hypotheses about what had happened. We decided to go completely wild in ideas, hypotheses, speculation, no idea would be worse than other. After having considered this, viewed and speculated, we had a meeting with Halldór where we went over the investigation program and process and the things we had been throwing between us. We told him about our observations and speculations.

Halldór did bring into our speculations new bits and thinking. He came up with putting the investigation plan into new models and look at in from that perspective. That would be a possibility to isolate further and exclude the hypotheses and narrow down the points we considered. Good points and the thing about putting our hypotheses in the circle, asking then 6 questions and even using the color code. It was

very interesting when a new team member joined the group. XX, at once, there were more hypotheses and ideas about what might have taken place in the case. This shows us that better see eyes than eye and if more comes into consideration, the more widespread our vision will be. We consider all the W questions and tested it into our hypothesis. The result was to test the case in other models and further expand the hypotheses with the aim of excluding and isolating what would be considered.

Participant 23 - Prosecutor, National Unit or Reykjavik Police

We were six from the class that met and discussed an investigation plan that had been built recently by investigators at the district prosecutor. Then we had a meeting with Halldór Rósmundur to discuss the investigation plan and the issues and speculations that occurred during our discussion.

We went over the plan and realized that we should maybe use more graphic in the investigation plan, we agreed that it could be helpful to visualize the plan and the goals that are set and have been achieved. We also agreed on that we need to think more about hypotheses during investigations. We had a little discussion about the hypotheses in general, but I think we are always with hypothesis in the back of our head, but we don't put them in the investigation plan, not on paper. The hypotheses are always in our head in my opinion, especially when I have participated in building an investigation plan. The other members of our group did not all agree, but the results of that discussion were that we might try setting them up more in the beginning of the investigation and in the investigation plan. The plan is a living document and could rule out some hypothesis as the investigation processes.

As I said the investigation plan is a living document and is constantly changing. It is important to keep it alive and document everything that comes in mind during the investigation and write down why certain things in the plan are finished or have been canceled and who made that decision. For example it might be considered necessary to talk to an individual as a witness in the beginning of the investigation, then later in the investigation we might see that we don't have to talk to that individual or we will be needing to talk to him as a suspect, not a witness. Then it is important to document that, why that has changed and who made that decision and when was that decision made.

There are a lot of things in the investigation plan that need to be done only to rule out hypothesis, possible witness hearings, investigation files that need to be made though it won't may matter at the end of the investigation, those are still things that have to be done only to rule that out that it isn't important for the investigation. We also discussed that on the side-line, in the back of our heads, we have the six C's. Unconsciously we are using them, that was the result of our discussion concerning that. First we weren't so sure but as we discussed it we saw that we are using it.

The discussion on the meeting and during this class has led us to believe that we are more conscious about the investigation plan and what needs to have in mind when we are setting her up. The investigation plan gives us more discipline during the investigation, more conscious about what needs to be done and what we have to keep in mind. Some practical things have been an issue for some of us in the group because not everybody is using an investigation plan, that makes it more difficult for some of the investigators who are working with an SIO who is not using an investigation plan. The results of that discussion were that it would be helpful for everyone in the investigation team if the SIO would build a plan in the beginning.

This discussion was very helpful, we discussed many things that we have learned during the course and it was helpful having an investigation plan to talk about, we went over the plan and saw things and talked about what could be done better, and discussed ideas on how we could improve the plan.

Participant 24 - Detective, National Unit or Reykjavik Police

For the past year, I have supervised an xx-person investigation team which was formed with officers and specialists from xx different agencies [xx, xx, xx,].

The case is highly complex investigation into x organized crime group that has been operating in Iceland. The investigation was conducted in cooperation. In October last year I wrote an investigational plan for this operation based on the Major case management model used by the xx- (foreign force). This approach I had studied in the xx Police College and found very interesting and comprehensive approach to large scale investigations. The plan was approved by the five chiefs of the involved agencies.

In very short the approach is based on a command triangle, Team commander, Primary investigator and a file coordinator. The triangle manages the investigation. The heart of the investigation is the weekly team meetings where all ideas are welcome and all team members are encouraged to speak their mind. Speed, flow and direction of the investigation is discussed. Tasks are assigned and people are held accountable to tasks assigned at earlier meetings.

The plan is 21 long and covers among others the following.

- History and background of the organized crime group.
- Goals of the investigation.
- Expected phases of the investigation split into 5 phases.
- A contribution of each agency both permanent members of the team and available staff for surveillance for example.
- Roles and responsibility of each member of the team
- Agreement between the five agencies'
- Possible need for more resources during the investigation
- Need for purchasing of equipment
- Decision making
- Media strategy
- Confidentiality agreement
- Conflict resolution

The biggest dilemmas we faced in the investigation is lack understanding of organized crime investigation by the courts in Iceland, which makes it difficult to get near the highest-ranking members of an organization.

We were able to overcome this and both kingpins of the organization were arrested in a joint operation in Iceland, xx and xx on the xx of December.

Me and x, the file coordinator, met with Halldor and Eirikur and discussed the investigational plan. It was good to get an outside view into the plan as it has been and still is confidential. Both of them seemed happy with the plan and interested in the approach. We had some good discussions about different aspects of the plan and the case. We discussed among other topics hypotheses, the six C, media strategy and the future of organized crime investigations and the need for a proactive team as was formed for this investigation.

Participant 25 - Detective, National Unit or Reykjavik Police

Firstly, I want to apologize for this delay of finishing this assessment, but it's related to recent involvement on a major investigation on organized crime which I and xx have been involved in for a year now. Having two suspects in protected custody forces you to focus on your work primarily.

This investigation is based on an investigation plan made over a year ago by xx and is under influence of his knowledge obtained from a seminar in major case management held by xx (foreign) police.

This has been a very complicated investigation done in cooperation with xx police authorities through Europol and involves a lot of information gathering and a parallel financial investigation which is a positive step forward in investigations on profit-driven crimes and can give a better oversight on the role of each person in the hierarchy of organized crime.

Throughout the investigation time there have been weekly meetings with the Icelandic investigation team where we have evaluated the progress of the investigation and making decision on which path should be taken. In these meeting people are encouraged to express doubts and different views and sometimes one is assigned to be “the devil’s advocate” to eliminate the risk of tunnel vision and various temptations that could mislead the investigation and its goal. And believe me there have been a lot of various opportunities to be carried away from the original task. This kind of approach in a long progressive investigation has, in my opinion, proved to be a good way of practice. On behalf of Europol there has also been a great satisfaction with this investigation and especially the parallel financial investigation which Europol has been trying to implement to be done on all OCG investigations and profit-driven crimes.

I and xx met with Halldor and Eiríkur recently and explained the investigation plan and how we keep focus on the target and tackle different challenges as the investigation evolves.

Participant 26 - Detective, National Unit or Reykjavik Police

I was invited into a group of 3 (including me) to evaluate a case one of the members has on his desk. It is concerning a big find of something illegal with no suspect, yet. Already there was an investigative plan made by the investigator. It was a routinely built up investigative plan and used frequently in the metropolitan police in cases like this. We looked at the investigative plan and tried to see what we could do better. We kind a opened the case again to see if we could build new hypotheses and work on them. We were able to build several hypotheses since the case is pretty much open with no suspect, but a few leads based on what was found along side with the illegal stuff. After a meeting where we used the fact finder methodology built on different hypotheses working towards answering the question “who is the owner and how can we find him “?

We got a meeting with Halldór with our case and discussed what we had done so far. He wanted us to use a more systematic approach and suggested the Investigative Cycle model to help us process the abducting reasoning in the case. After the meeting with Halldór we had more focus on what to do as for next steps in the case. We built further on some of the hypotheses and made some new ones. Steps were made to try to eliminate some of them and in others we made some hypothetical links with people. We found at the end that we had more focus after we decided to test our theories using the tools provided.

Appendix 5 - Analysis of the written reflections notes

Analysis of the participants written reflections

Analysis of the participants written reflections note presented individually on the e-learning module approximately 4 months into the programme (December 2017). Below the reflections are analysed and re-structured into four interlinked and mutual dependent critical dimensions for the delivery of quality investigations and future progress namely how the;

1. individual detective or prosecutor think, reflect and expresses his or her motivation or ideas (individual culture - marked in red below)
2. individual detective or prosecutor organise and process his or her professional tasks and commitments (individual structure - marked in blue below)
3. organisation, team or collective group of detectives or prosecutors think, reflects and expresses their motivation or ideas (organisational culture - marked in green below)
4. organisation, team or collective group of detectives or prosecutors organise and process its professional tasks and commitments (organisational structure - marked in yellow below)

<i>INDIVIDUAL CULTURE</i>	<i>ORGANISATIONAL CULTURE</i>
<p><i>This is not a plan that I am familiar with; however, after this meeting, I am now aware of how beneficial using this type of investigation plan can be (1).</i></p> <p><i>I believe that the benefits of having an investigation plan is that one is able document everything that has taken place during an investigation (1).</i></p> <p><i>This enables the detectives to have a clearer overview of the case, creating more awareness, which allows detectives to be more precise and accurate about their decision-making; e.g. they are able to answer why a certain hypothesis was ruled out, rather than someone else (1).</i></p>	<p><i>We went over an investigation plan, that some of my colleagues are using whilst investigating cases (1).</i></p> <p><i>For an investigation plan to be successful, the police organizations in Iceland need to coordinate the use of such a plan and should view it as a necessary tool in all major crime investigations (1).</i></p> <p><i>At the meeting that I had with my co-workers who showed me the investigation plan, I was able to view the organized work style that detectives can use during an investigation by simply customizing their work style and practicing the same methodology.</i></p>

When I made the plan I thought it was as good as it could get. I was wrong. Since it was a relatively simple case I didn't have any hypotheses although I did put down the accusations step by step and checked whether it was verifiable or not. Afterwards I came to see how it would benefit the plan to have it more visually appealing and the checkboxes (or hypotheses if that applies) graphical. That way the plan would be easier to read either for additional investigators or if there was a break in the investigation. All in all I learned from this assignment and will keep developing a practical, easy to use investigation plan (2).

I think it is very interesting how this "new kind" of investigation-plans (cross-check matrix), where we try to imagine all competing hypotheses in a criminal case and all actions (questions) to confirm or eliminate them, has opened my eyes for things that I have not considered when using the "old kind" of investigation-plans (3).

After reviewing an actual case, using this cross-check matrix, I believe it can be quite useful and it forces you to be more disciplined and focused in your approach to the investigation. It can also give a graphic view of the development of the case as the info-gaps start to fill. It appears to be more practical in serious/extensive cases, but if you have completed a few investigations using this kind of a tool, you already have a blueprint to use in future cases (4).

I think to make an investigation plan will help to manage the case and also it will give you the perspective that we often lack because we are so busy trying to solve a case and we forget to check the boxes of what have we done and what do we need to do. If you put in the work to begin with it and do a good investigation plan it will make your job a lot easier later. (8)

This assignment was for me as a prosecutor very helpful to understand the beginning of an investigation and the challenges that investigators often face. (8)

As I have said in prior reflections, I think that this course and study in MSL, regarding these

It is not difficult for organizations to make an investigation plan an integral and necessary part of all investigations. For changes to be made, I believe that we as detectives need to adapt our way of thinking and be more open-minded for change to take place (1).

Me and two of my colleagues, who are also in this program, met, discussed and criticized our investigation-plans (cross-check matrix). We tried to imagine all possible scenarios (competing hypotheses) and all possible actions that we could use to eliminate or confirm those hypotheses. We discussed how we would make this kind of investigating plan in the beginning of a major investigations in the future (3).

In the beginning me and my partner discussed and tried to find out every possible explanation there might be for this. In doing so, we were finding hypothesis and based or work around them. What we did not do was sitting down and taking time to set up a Matrix in a formal and organized way with competing hypothesis, information gaps and what we could to fill those gaps. ...I had made a Matrix with competing hypothesis and information gaps – where I both had filled in every hypothesis we had had, and what questions we had already asked ourselves and what measures we had taken to answer them. In this brainstorm I didn't find more hypothesis, but I recognized a few more information gaps and possible ways to fill in others.

When discussing the matrix/Investigation plan ... they also pointed out a few more possible information gaps and ways we could gather information. They also double checked if we had taken some measures and why we had not done some other things – which was good because then I had to argue and explain why some things would not be possible and why we thought they might not add to the investigation. During our discussions we didn't find more basic hypothesis, but we agreed that it could be good to "split up" hypothesis we already have later in the investigation – if our investigation leads us that way. We also agreed that it is good to set up a matrix/investigation plan as soon as possible, and that the Excel-form we used could be used to keep track on what to do, what are the priorities and when things are finished. Another

hypothesis methods and more structured plans, is very important. I think that we need to slow a bit down on the “what to do” and focus even more on the “why we do”. That does not automatically slow investigations down but rather will be likely to speed up the aftermath regarding the prosecution process, at least I hope that the investigations would be even better and have fewer loose ends if we have better oversight and documenting. I am excited to improve my methods even more and develop my “to-do” list to a 4.0 version. (10)

Having started the management course in police investigation has in my opinion improved me as a professional expert in police investigation in two ways. It has expanded my thinking of investigation. I think more out of the box and I have come more alert concerning overview as a leader it is easy losing vision being busy. I am more open minded letting my coworkers help in investigation detail work since some take a lot of time and effort (14).

I have realized better how important it is for the leader of investigation to be ready with answers when asked in trial why some theory where not checked or done. Also, ready to answer why this was not taking longer as a theory and why other theories were taking in further process. (14)

I see the great advantages of using tools like this to work on a system like this, but also that there was some work to do with it. But the tool obviously immediately exceeds that work. And, quite obviously, tools like this make me feel good, to keep track of tasks and tools for nothing to be forgotten. Also, to keep track of ideas for works that do not necessarily have to work immediately but may be considered when more information is received. Even to exclude what you do not need to do. Not only to exclude hypotheses, and possibly a lot of work-saving already. What we did not register with us and not used in writing are tools like H-in six, but we were cleverly using both unconsciously. Imagine that a device like this is something that might be better in writing in front of the eyes when

thing I found out to be helpful was the possibility to use the Information-gap list of questions to share strategies. For example, had I talked to almost all of the witnesses on the pier, getting their story. My partner was then to interview one witness who had also been there and asked me what questions I had asked the others. I then had to list these questions down and hand them to him. But when I made the matrix, I saw it had all these questions as information gaps (and for these questions we had “interview witnesses” as how to answer them. If my partner would have had access to this matrix (and if it had been made during the first phase of the investigation) he could have opened the list of questions and copied it to his question sheet in a few seconds).

Now that we have collected most of the basic data we first found out we needed for our investigation it will be interesting to evaluate it and how it fits to different hypothesis – which hypothesis have a strong support and which not, for we still have not solved the case. (7)

We discussed the practical dilemmas and found that, although not necessarily the case here, some issues might arise concerning that. For example, if there are very strict procedures to follow when investigating a case, and not much room for a change of mind, too little time to investigate, lack of resources and lack of understanding from the “people above”, or the management of the police force. (9)

One of the ideas we discussed was how we could implement the Shared-processing model in to our written investigative plan. We agreed that we most likely use this model or at least the concept of it unconsciously in our work but it would be interesting to use it in a more structured way to better our work. (10)

We also discussed how we could share the methods that we are learning with other coworkers. We agreed in that experience, that there is a little lack of interest from other employees to develop and learn new methods for their work. However, since we most often work in groups and teams, we would like to see more planning and structuring in our investigation plans so that the work gets more effective. (10)

working with Matrix like this. To make sure that nothing is forgotten. And there is some that nothing has been forgotten. (15)

Another thing I learned about this project is the tools that this needs to be practiced and practiced, for the first step, it will last for the least time. I think the work at first is high vs. What you care for but very fast is the rate to be reversed and the benefits of work at the outset will be effective in working savings. (15)

It is very difficult to come up with a good investigation plan or strategy in our jobs because every case is different and there are so many variables. It's very good to hear and learn about bias and how to work with bias thought. (17)

Having started this project has made me and my two colleagues who are leading the criminal investigations for the police district more alert about the necessity of close cooperation. It has made us more united and increased understanding between us. (14)

My organization (District Prosecutor) is always encouraging us to get better education, more knowledge and more perspectives on our workfield so as a group I think we are growing in our jobs. (17)

We found it useful to discuss the matter with Halldór Rósmundur and get his view on the case. After our discussions, we found many cultural and operational shortcomings in our institution that need to be addressed, especially concerning investigator training. We find this course to be a great beginning to avoid a similar outcome in the future. (18)

After having considered this, viewed and speculated, we had a meeting with Halldór where we went over the investigation program and process and the things we had been throwing between us. We told him about our observations and speculations.

Halldór did bring into our speculations new bits and thinking. He came up with putting the investigation plan into new models and look at in from that perspective. That would be a possibility to isolate further and exclude the hypotheses and narrow down the points we considered. Good points and the thing about putting our hypotheses in the circle, asking then 6 questions and even using the colour code. It was very interesting when a new team member joined the group. XX, at once, there were more hypotheses and ideas about what might have taken place in the case. This shows us that better see eyes than eye and if more comes into consideration, the more widespread our vision will be. We consider all the W questions and tested it into our hypothesis. The result was to test the case in other models and further expand the hypotheses with the aim of excluding and isolating what would be considered (22).

Some practical things have been an issue for some of us in the group because not everybody is using an investigation plan, that makes it more difficult for some of the investigators who are

	<p><i>working with an SIO who is not using an investigation plan. The results of that discussion were that it would be helpful for everyone in the investigation team if the SIO would build a plan in the beginning (23).</i></p> <p><i>Me and X, the file coordinator, met with Halldor and Eirikur and discussed the investigational plan. It was good to get an outside view into the plan as it has been and still is confidential. Both seemed happy with the plan and interested in the approach. We had some good discussions about different aspects of the plan and the case. We discussed among other topics hypotheses, the six C, media strategy and the future of organized crime investigations and the need for a proactive team as was formed for this investigation (24).</i></p> <p><i>Throughout the investigation time there have been weekly meetings with the Icelandic investigation team where we have evaluated the progress of the investigation and making decision on which path should be taken. In these meeting people are encouraged to express doubts and different views and sometimes one is assigned to be “the devil's advocate” to eliminate the risk of tunnel vision and various temptations that could mislead the investigation and its goal. And believe me there have been a lot of various opportunities to be carried away from the original task. This kind of approach in a long progressive investigation has, in my opinion, proved to be a good way of practice. On behalf of Europol there has also been a great satisfaction with this investigation and especially the parallel financial investigation which Europol has been trying to implement to be done on all OCG investigations and profit driven crimes (25).</i></p>
<p><i>INDIVIDUAL STRUCTURE</i></p> <p><i>Some detectives may use an investigation plan, while others will use a completely different approach when it comes to organizing their work (1).</i></p> <p><i>The investigation plan helped me organize the investigation so I could check what had been</i></p>	<p><i>ORGANISATIONAL STRUCTURE</i></p> <p><i>I believe it is far too common for detectives, in Iceland, to work on cases according to their own standards and style of work (1).</i></p> <p><i>In my team, we have never used or considered using an investigation plan, even though we are working on a major case, consisting of a lot of</i></p>

done and what was left to do. The plan was, and is, a live document and is absolutely necessary for investigations that either take time or has many „steps“(2).

In this assignment I made a detailed investigation-plan which I worked on for many hours. In smaller investigations in the future I probably will not make as detailed plan but I think that I will use the methodology. I will think about competing hypotheses, actions and so forth. The finding of competing hypotheses and the confirmation or elimination of those helps me minimize my own bias. In this assignment I experienced my own bias and how this kind of investigation-plan helps me to identify that bias (3).

After reviewing an actual case, using this cross-check matrix, I believe it can be quite useful and it forces you to be more disciplined and focused in your approach to the investigation. It can also give a graphic view of the development of the case as the info-gaps start to fill. It appears to be more practical in serious/extensive cases, but if you have completed a few investigations using this kind of a tool, you already have a blueprint to use in future cases.

However, given the circumstances in a small investigative unit, where lack of manpower is constant and the lead investigator is up to his elbows from the very first instance (victim, crime scene, etc.) it can be hard to slow down and give yourself time to draft an investigation plan such as this one instead of focusing and ploughing on in action-mode. One of the investigators said that even though he did not make this kind of an investigation plan (documented) right at the beginning of his investigation, he did so mentally. Right from the beginning he started to develop his hypothesis and identifying info-gaps and that has to be considered a step in the right direction.

What **I found lacking was a tool** to document the decision-making process (decisions by investigators as well as prosecutors) during the investigation but I'm not certain if it should be a part of the same document as the investigation plan. If the reasons for making certain decisions regarding the case are not documented at the

documents to go over and many people to interrogate. This situation leads to a lack of communication whereby members of a team are not aware about the roles that each other has whilst investigating a case. This is frustrating, because I do not have a clear overview of the progress of the investigation and the things that have previously been done or the things which need to be done in order to complete the case (1).

The old investigation-plans are action-based. Using the "old kind" I made a plan (checklist) where I listed up actions that had to be taken during the investigation. Usually these actions have been rather narrow minded and focused on a few hypotheses, or only one. Until now we (the Icelandic police) have not had any single tool focused on an overview of an investigation and evaluation of competing hypotheses. There has not been any tool or a system for documenting decision-making during the management of investigations (3).

One of our ideas were that the detective, who was in control of a major investigation, should make an investigation-plan. We, the team, would meet, discuss and develop that plan further. Then we would use it to debrief others about the investigation and develop the plan as the investigation progresses. We agreed that we would save our investigation-plans in one place. Then they would be accessible for similar cases in the future and for further development. We also agreed that a document concerning decision-making in an investigation could be linked to the investigation-plan. One idea was that there would be one document that included an investigation-plan and a document over-viewing decision-making for every criminal case. The document for decision-making would have to include information about who took which decision and when. The document would also include why a decision was taken, to make a certain action and why a decision was taken to exclude a particular action (3).

The police usually documents most of its actions for example "this was called in . . . we drove this way and saw . . . and when we arrived at the scene, we saw . . . and because of . . . we decided to arrested . . .", and so forth. Why shouldn't the police document every decision that is made

time of the decision-making, knowledge you acquire further along in the investigation could taint your reasoning later on, and as such decrease the quality of the investigation (4).

I try to identify all the necessary investigative hypotheses and actions as soon as possible. I discuss hypotheses and actions with other detectives in my division and with the prosecutors. It helps to get others' perspective on the issues. I can't say that we directly use The Investigative Cycle model in criminal investigations. But through the investigation we, collect, check, connect, construct, consider, and consult. The Investigative Cycle and the investigation plan are good guidelines for the investigation.

We use the PEACE Model of investigative interviewing. We use the golden questions: What, where, when, who, why and how and we also use TED questions.

I use excel working with data, but I have not been using excel or system like ACH matrix for evidence evaluation. We can always do better so I am ready to try it. We don't keep a record of how, when and why decisions are made in an investigation. That is something I believe we will do in the nearest future and is on my bucket list, of work (5).

Personally, I believe I have identified most of the necessary investigative hypotheses and actions. But you can never be sure about in advance whether the main suspect will begin providing information that could incriminate other associates in the act described in the complaint or in related matters. Such information can affect decisions made in the many aspects of the investigation plan for example the examination of the crime scene/scenes and identifying evidence. It could also help us prevent the disposal of other evidence (6)

By making an investigation plan, even though it is not a matrix, you must try to predict all possibilities or build hypotheses. By doing so you can ensure in-depth a detailed understanding of the relevance and reliability of the material gathered in the investigation. By doing so it is also easier to ensure that the

and every hypothesis that is challenged during a major criminal investigation? (3)

The matrixes were set up as if it was the beginning of an investigation, with just basic information, enough to develop competing hypothesis and identifying the info-gaps. At first one of the matrixes seemed to be more action-based than based on the info-gaps/competing hypotheses. After further discussing the cases and the functions of the matrixes, the investigator decided to alter his approach, focusing more on info-gaps than actions, and by our second meeting to discuss the cases and the investigation plans, the matrix was functioning as intended. As the matrix was designed it allows you to filter various components, e.g. actions taken (in relation to info-gaps), prioritizing and allocating tasks within the investigation, as well as evaluating evidence/information as consistent/inconsistent with a particular hypothesis. These meetings were quite useful and, in both cases, resulted in some changes in the investigation plans, further developing the hypotheses and revealing additional info-gaps and revealed some biases/presumptions that had not been considered. Therefore, the investigation plans seem to allow for a good, dynamic investigation, that can also be used for quality control, shared strategies and evidence evaluation, as well as being a basis for review, either formal or peer-to-peer (4).

In my work as a detective I always use an investigation plan in my investigations. In my division we have a document, an investigation plan that we have been using for some months now, with good results. This document „The Investigation plan“ starts as a plan of what to do in the beginning, but it changes during the time of the investigation. We also put summaries of all interrogations and hearings into the document. Results of all studies and data are inserted in the document. When the investigation is finished the investigation, plan is not a plan anymore, but a document that shows what we have done, results of researches and evidences. Then we use that document as report of the investigation. The document is flexible from the beginning and not carved in stone. It can be changing all the time because you get new

evidential test has been implemented to all the material gathered in the investigation as well as ensuring the interpretation of the same material correctly. (6)

I am also convinced that my tool and format allow a good, dynamic investigation and it also provides an opportunity to control the quality of the investigation in an effective way. The tool is also a good platform for the investigation team and the police prosecutor to share strategies as evaluate evidence. So, you could say that a written investigation plan helps in the investigative decision-making process as well as helping the head of the investigation or unit to will keep a track of their thoughts and makes it easier for them to keep the focal point on the needs of the investigation. (6)

When designing and organising my investigation plan I tried implying the matrix taught at the course and found it very helpful. I especially found helpful the whole visualization part of it. At the unit where I work, sexual offences, we do have a well set up and organized investigation plan which always changes as the case goes on and new information arises. However, it is not visual like the matrix we are being taught to use and implying it would be a great addition. (9)

As the investigation then goes on, the 6-C's (Generic Investigative Cycle and the 6 Investigative Questions) are good to have in mind. To collect, check, connect, construct, consider, and consult is something that I think most of us do but may have a hard time explaining or putting into words. Much like the basketball player whom you ask to describe and explain who he or she takes his or her shot, it's just there. (9)

Since I started working at this office, investigating serious economic crimes, I have developed my investigating plans very much. When I first started working here, I had a group leader, which had many years of experience at investigating economic crimes. He did not use any specific investigating plan, and seemed to have the next steps only in his head and appointed assignments to us without explaining why that needed to be done to have more

information and things sometimes are not as they appear in the beginning. Sometimes the investigation reveals that the person charged is innocent. (5)

We can control a lot in an investigation. But what we can't control everything. We have to little time and to many cases. There is always a pressure to finish the investigation in as little time as possible. This affects the quality of the investigation and mistakes are made even though we all try to do our best. (5)

We have taken considerably big and complicated criminal investigation and have listed up a work plan in a document which we change in line with the process and how the investigation is getting bigger and more information increases. (14)

...me and my two colleagues who are also in the program have meetings two or three times per week and we look at how the investigation is going, and we update the document. By doing this we are all informed how the process is always and we can come up with ideas about next steps in the investigation. Also we can by doing this explain better at any time for the prosecutor how the investigation is processing and he can give us an input. I'm sure about that we will take this new method of work to be the future procedures in my district but of course it will some time take to adjust like all other good new tools in the box. (14)

December 15 Halldór came to our office and met with me and three of my colleagues. We looked at two investigative plans, one old and one new, which one of my colleagues had made, but he calls it a To-Do list. The plans are very well organized and thorough Excel documents. They were made of several sheets that showed suspects, witnesses, to-do lists and tasks, and what employee is responsible for what task. This is a document my colleague usually makes in his investigations, but not something that every investigator uses at our office. The document is well organised and a great foundation for an investigative plan. What we agreed on is that is has action points but is lacking the hypothesis part and some documentation on the hypothesis, changes, exclusions or new hypothesis. Then to

oversight of my tasks I started to develop my own "to-do" lists. Since then I have learned a lot and now, I manage my own cases and have an investigating team working with me, for now we are a group of three and I more or less lead the investigations. (10)

Through the years, I have tried various tools in the planning, such as Microsoft Word, Mind Manager and Microsoft Excel. I find that Excel is the best tool for day to day work, as you can share the document with others in my team and changes can be seen right away but also for the possibility of more than one worksheet in the same document for piecing tasks down to smaller challenges. For strategic planning, I use Microsoft Word, and try to keep that document updated regularly. However, I find it best to have the plans in only one document, because multi-documenting can be confusing and may cause you to forget to register or update. (10)

I was glad to see that my co-workers liked my plans and I could give them good ideas on how to manage large cases. Today my "to-do" lists have developed to a „3.0 version“, so to say, since my first "to-do" list which was very simple. In my lists, I always have at least a task column, accountable employee column, priority column and a remark or feedback column. It then depends on the case, which, or if, additional columns need to be added. On our meeting with Halldór we discussed how we could better these planning documents even further to work cohesively with the hypothesis method we are studying in our course. For example, to have a color-coded system on how well the tasks are applicable to the hypothesis we are trying to exclude or prove. Color-coding is likely to make the plan, even more, visual and effective. (10)

Investigation plan is such that when a detective is doing them, he goes on to discuss the matter independently, what is open, what to do, how to do it, what has happened, and so on, and suggests a possible outcome. Then there are a number of hypotheses, the whole thing is expected, and thus, the detective gets a better overview of what to do, what is done and how is best to investigate cases in the future. Part of it is to be in good contact with the legal representative at our police unit. An

make it more visual we could have tables with colours, green and red. The colours show visually which hypothesis is the strongest and which is the weakest. We agreed on that investigators should work with standardised investigative plan. It would increase professionalism and quality of work and decrease the likelihood of mistakes. We learn a lot from our colleagues, but we regularly discuss the lack of standardised working procedures. Good standardised procedures are highly important, they would be good for the overall quality of work and decrease the risk of faulty practices. (19)

Doing an investigation plan helps me to keep up with the extent of the matter and its progress. I change the program as per the case, record what was done, when it was done and who did it and what to do. The heads of the office have asked the investigator to do an investigation plan at the beginning of each case and also send the program to the lawyers of the office (21).

We went over the plan and realized that we should maybe use more graphic in the investigation plan, we agreed that it could be helpful to visualize the plan and the goals that are set and have been achieved. We also agreed on that we need to think more about hypotheses during investigations. We had a little discussion about the hypotheses in general, but I think we are always with hypothesis in the back of our head, but we don't put them in the investigation plan, not on paper. The hypotheses are always in our head in my opinion, especially when I have participated in building an investigation plan. The other members of our group did not all agree, but the results of that discussion were that we might try setting them up more in the beginning of the investigation and in the investigation plan. The plan is a living document and could rule out some hypothesis as the investigation processes. The investigation plan gives us more discipline during the investigation, more conscious about what needs to be done and what we must keep in mind (23). We got a meeting with Halldór with our case and discussed what we had done so far. He wanted us to use a more systematic approach and suggested the Investigative Cycle model to help

investigation plan is, therefore, a great tool that is very useful and is constantly evolving, and changing of course from case to case, depending on their progress as long as the investigation continues. This project we have been doing is writing an investigation plan and looking after it in all ways, it has been very successful. It's always good to review what you do and discuss with colleagues, so you get new ideas and open up new visions. My colleagues in my detective unit also agree and make use of this tool very well. An investigation plan is, in fact, a checklist for detectives so they do not forget about anything and what needs to be done because the detective's burden is huge, they are even fully investigating a serious case when another serious case comes along and the other case they were working on is put on hold. It is good that the investigation plan is available and well done, it is much easier for the investigator to take up the case where it was gone and without any problems. This gives a better overview and better organization, and another detective can easily get into the case just by reviewing the research plan. By doing a good investigation plan, you get a much better overview of the matter and, in the same way, the quality of the investigation will be much higher. (11)

The investigation plan helped in this case, N.B. The case had already started when I made the plan. Even though I didn't do a visual hypothesis in this case I was aware of them and utilised them. The problem with this is that in most of my cases I cannot do these sorts of plans in the beginning or at least that is what I think. However, doing this project I have been thinking how I can solve that and have some ideas, but they are in early stages. (12)

The benefits of the investigating plan were unequivocal to get a better overview of the case and how to share assignments with the investigators working the case. The objectives of each factor were also set and what should be expected regarding to the results. After that, a reassessment was made of what had been done and not and, in the end, examined regarding continuing work. After reassessment with other colleagues we realized that by considering using 6 C's Generic Investigative Cycle more

us process the abducting reasoning in the case. After the meeting with Halldór we had more focus on what to do as for next steps in the case. We built further on some of the hypotheses and made some new ones. Steps were made to try to eliminate some of them and in others we made some hypothetical links with people. We found at the end that we had more focus after we decided to test our theories using the tools provided (26).

effectively we might have had more visual a investigating plan. (13)

Bringing theories in early state of investigation and use „brainstorm meetings "with colleagues to list up all possible theories and then close them one by one instead of working only after one theory which seemed in the beginning of investigation most likely the right one is a better solution. Then close theories one by one after having them researched. In the end only one or few are something to use as material for making decision for the prosecutor if to take the case to court or dropped. Doing investigation like this we are preventing wrong results based on wrong decisions and keeping all tracks warm and preventing evidence getting lost. (14) As an example: One of the suspects is no longer suspected after the research work which proved he did not have possibility to commit the crime. Having safe proof of that we can close the theory about him as possible suspect. Other theories might get stronger after having one closed and make fewer left as the final theories. (14)

We took the research plan and reviewed it we also look into what could be added to the examination by view it from many sides. This criminal case offers the possibility of using varied hypotheses. At the meeting with Halldór we presented him the research plan, the hypotheses and our conversation about the case. Hallór pointed out the models we could use in this criminal case. These models could be used to isolate further and exclude the hypotheses and narrow down the points which need further examination. The decision was to test the case in other models and further expand the hypothesis with the aim of excluding and isolating what would be considered better. (16)

My first thoughts is that we here at „my xx-department“ don't use hypotheses at all. Often, we have a pretty good idea who is the main suspect and sometimes we can more or less see how the case lies. After I started this course I thought about and tried to use hypotheses, but it was very difficult. It was difficult to come up with hypotheses that where relevant. So i guess we don't need or can use hypotheses that offen. ...

Organisational structure in my workplace is maybe a little bit different from other police organizations in Iceland. (17)

My/Our investigation plan is more what we need to do and how we are going to do it. More like „Collect-check-connect-construct-consider-consult”. Here at „xx -department“ we usually work in groups so we talk about the case throughout it all, so we have a good opportunity to go over the case and find the best solution and strategy. So we go over the investigation almost on a day to day basis. When we work in groups I think it is less risk of being bias. (17)

[..]the making and use of the investigation plan did a lot for us and the investigation. After every meeting and discussion we put down next steps, planned actions etc. But the most useful tool in this investigation was the diary we kept. Because in the aftermath one can't remember everything that happened in the investigation or when or who did what. So if compared together; this investigation (investigation plan) to the 6 C's Generic Investigative Cycle: We consulted with each other and seniors during the investigation so there was always a second opinion on the investigation plan, we collected all available data, we checked that the data was reliable, data and information were in connected. For example, financial-and phone data were made understandable. We did not emphasize on the construct factor. But we did discuss what do we not know and who else could be involved in the case. We did not emphasize on the Consider factor. I discussed this assignment with my colleague xx and Eiríkur Valberg. In those discussions we discussed hypotheses and how we think of them. We agreed that in most proactive investigations like the one mentioned above, investigators are constantly making hypotheses, regarding the investigation, in their head but no one writes them down.

Eiríkur also asked me a critical question regarding the investigation plan. “Did you write down, or put down on paper, why you made, or made not, decisions. Needless to say I did not. I think the reason for that is that the benefits of it had not been introduced to me (20).

