

**EVALUATION OF HANDWRITING AS INDIVIDUALISATION TECHNIQUE IN
FRAUDULENT INSURANCE CLAIMS**

by

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DECLARATION

I, Mosuwa, Abel Lelosa, student number 7676352, declare that **Evaluation of Handwriting as individualisation technique in fraudulent insurance claims** is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

I further declare that I submitted the thesis/dissertation to originality checking software and that it falls within the accepted requirements for originality.

I further declare that I have not previously submitted this work, or part of it, for examination at Unisa for another qualification or at any other higher education institution.

SIGNATURE
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DATE

DEDICATION

This research is dedicated to my late mother Mamorena Maria Lelosa who was born on 20 December 1921 and passed away on 30 June 1999. I will not forget you Mama. I will always remember how you raised me.

I further dedicate this research to my wife Matanti and to two of my sons Nanasi and Botana and my beautiful daughter Refilwe for their encouragement and support through the difficult time of my research, both financially and to trace needed sources of information to complete this dissertation.

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FRAUDULENT INSURANCE CLAIMS**

by

MOSUWA ABEL LELOSA

I found the standard of the language acceptable provided the corrections as indicated have been made.

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Pretoria, 24 January 2019

ABSTRACT

The aim of this research is to evaluate handwriting as an individualisation technique in the investigation of fraudulent insurance claims by investigators in their daily investigation duties. It further shares with and introduces the readers and other investigators to important concepts in crime investigation such as criminal investigation, identification, individualisation, insurance fraud, evidence and handwriting. Handwriting as an identification technique is discussed in detail because it is the most common method used to commit insurance fraud.

The investigation concept contamination and the chain of evidence was explored by the researcher. A process of eliminating an individual to be the author of a document is also examined. Further the collection, preservation, marking and packaging of a disputed document is discussed.

Lastly the research discusses how handwriting can be used to individualise the author of a document.

KEY TERMS

Chain of Custody, Contamination of Evidence, Crime, Crime Scene, Criminal Investigation; Disputed Document, Document, Evidence, Forensic Investigation, Fraud, Handwriting, Identification, Individualisation, Insurance Fraud and Perpetrator.

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LIST OF ABBREVIATIONS

ASISA	-	Association of Investment in South Africa
CEO	-	Chief Executive Officer
CPA	-	Criminal Procedure Act
CS	-	Crime Scene
CSI	-	Crime Scene Investigator
Dr	-	Doctor
et al	-	and others
e.g.	-	for example
MO	-	Modus operandi
P	-	page
Par	-	Paragraph
RSA	-	Republic of South Africa
SA	-	South Africa
SACR	-	South African Criminal Law Reports
SAPS	-	South African Police Service
SCA	-	Supreme Court of Appeal
SCAT	-	Supreme Court of Appeal Transvaal Provincial Division
Unisa	-	University of South Africa
v	-	Versus
W	-	Witwatersrand Local Division

1. CHAPTER ONE: GENERAL ORIENTATION

1.1 INTRODUCTION

The researcher is an experienced criminal and corporate investigator who served as South African Police Service (SAPS) detective and as specialist forensic investigator in the insurance industry. He noticed the increasing fraudulent insurance claims that were submitted at Assupol Life Insurance and ended up as insurance fraud cases being reported to the SAPS. He decided to conduct research to find out if handwriting as an individualisation technique can be used to individualise a person. It came to his attention that most investigators are not correctly utilising handwriting as individualisation technique when investigating insurance fraud cases.

Insurance fraud has become one of the greatest challenges in the Republic of South Africa (RSA) in recent years. The SAPS and corporate investigators struggle to deal with this type of crime due to changing technology criminals are using. White-collar criminals are very intelligent and they plan their activities well and in such a way that no untrained investigator will be able to trace them. Insurance fraud can be committed in many ways, and it involves misrepresentation and the non-disclosure, of disability, as well as death and funeral claims. There is a unanimous feeling that insurance fraud is a global and economic problem that threatens the financial strength of insurers and the survival of insurance institutions.

1.2 PROBLEM STATEMENT

Leedy and Ormrod (2013:27), Salkind (2012:40), Welman and Kruger (1999:12) and Welman, Kruger and Mitchell (2007:13) state that a research statement is at the heart of research and it is formulated as some difficulty which the researcher experiences in the context of a practical situation to which he or she wants to obtain a solution. The formulation of the problem statement for this research was intended to prevent any discrepancy between what the researcher writes and what he means (Creswell, 2014:114; Du Plooy-Cilliers, Davis & Bezuidenhout, 2014:288; Leedy & Ormrod, 2010:44 and Salkind, 2012:40). The formulation of the problem statement in this research provided the basis for the research questions.

The researcher has had 29 years' experience working as supervisor and investigator for Assupol Life Insurance Company in KwaZulu-Natal (KZN) province and as a fraud investigator at the SAPS. His main function is to supervise and to investigate fraudulent insurance claims cases. These fraudulent claims include death claims, disability claims and vehicle theft claims. The researcher has noticed and experienced that fraudulent insurance claims are usually committed by altering the information on a policy document by writing a false claimant's names, fraudulent identity documents used, writing false information on claim documents, and forged signatures of clients. However, all the claims that are submitted to Assupol Life Insurance are completed by hand and researcher noticed that handwriting as individualisation technique is not effectively used to identify and individualise the perpetrator. The table below indicates the increase of insurance claims at Assupol Life Insurance.

Table 1-1: Statistics of fraudulent claim cases detected at Assupol Life Insurance for the period 2011 until 2015

Provinces	Years				
	2011	2012	2013	2014	2015
Eastern Cape	331	599	667	569	1,925
Free State	107	134	139	97	179
Gauteng	138	99	119	117	246
Kwa-Zulu-Natal	176	274	287	248	301
Limpopo	13	16	15	22	106
Mpumalanga	3	2	30	17	28
Northern Cape	17	19	34	39	117
North West	151	110	86	71	96
Western Cape	9	1	18	90	96
TOTAL	945	1,254	1,395	1,270	3,094

Dempsey (2012) deputy Chief Executive Officer (CEO) of the Association for Savings and Investment South Africa (ASISA) states that insurance fraud and dishonesty have reached a record high in the country. He points out the absence in the use of investigation techniques. According to him the use of handwriting could be used to identify suspects which in return could help to combat insurance fraud.

The researcher has on daily basis perused fraudulent claim cases and does have insight into all the insurance fraud cases reported at Assupol Life Insurance. From experience as an investigator in the SAPS and at Assupol Life Insurance, the researcher knows that handwriting can be used as individualisation technique to identify individuals who have presented fraudulent insurance claims. The researcher further noticed during inspections of fraudulent insurance fraud cases that, in some of the cases, the handwriting that appears on fraudulent claims seems to have similar characteristics and that it should have been analysed by professionals and experts. Thus, the researcher saw the need to conduct research on how handwriting as an individualisation technique can be utilised in the investigation of insurance fraud cases at Assupol Life Insurance.

1.3 RESEARCH AIMS

Davies (2007:21) and Thomas and Hodges (2010:38) state that research aims in social research usually refer to the main goal or overarching purpose of a research project and they are usually quite brief and to the point. The aim of any research is to establish facts, gather new data and to determine whether there are interesting patterns in the data.

This research aimed to evaluate handwriting as individualisation technique in the investigation of fraudulent insurance claims.

1.4 RESEARCH PURPOSE

According to Lichtman (2014:38), the purpose of the research indicates the focus and direction of the research, and provides criteria for the evaluation of the outcomes of the research. Denscombe (2010:11), Marshall and Rossman (2011:75) and Singleton and Straits (2010:107) describe the major purposes for research as exploration, empowerment, explanation, development of good practice and describing a phenomenon.

The following are the purposes of this research:

- **Evaluation:** The researcher investigated particular programs, policies and information on claim forms with the intention to weigh up the strengths and

weaknesses and consider how handwriting as individualisation technique might be improved in investigation of fraudulent insurance claims.

- **Exploration:** The researcher intended to explore the existing methods used by fraudsters when committing insurance fraud. To explore the topic under investigation the researcher consulted national and international sources in order to obtain new knowledge about the problem. Semi-structured interviews were conducted with investigators at Assupol Life Insurance who investigate fraudulent insurance claims.
- **Empowerment:** This research empowered the researcher himself and the participants in this research, by learning and discovering new information about the use of and writing as individualisation technique when investigating fraudulent insurance claims. In addition, the researcher intended to make this research available to other researchers.
- **Description:** The researcher described precisely and as accurately as possible how handwriting can be used as an individualisation technique in the investigation of insurance fraud cases at Assupol Life Insurance.
- **Develop good practice:** Based on the strength and weaknesses of the existing procedures, the researcher made recommendations on how to use handwriting as an individualisation technique. If the recommendations are applied, it will enhance the performance of investigators and lead to higher prosecution and conviction of fraudsters who commit insurance fraud.

The researcher acquired first-hand information from the other forensic investigators and literature about ways of obtaining and utilising handwriting as individualisation technique during investigation of fraudulent insurance fraud cases.

1.5 RESEARCH QUESTIONS

According to Mills and Birks (2014:204), Punch (2011:36-37) and Salkind (2012:44) research questions specify exactly what is to be investigated. In order for the researcher to stay focused and to gather new evidence, the advice of Flick (2011:90), Rule and John (2011:31) and Wagner, Kawulich and Garner (2012:18) was followed and three research questions were formulated. They are:

- What does individualisation necessitate?

- What is insurance fraud?
- How can handwriting as individualisation technique be used to investigate fraudulent insurance claims?

1.6 KEY THEORETICAL CONCEPTS

Definitions are statements that aim to convey meaning of terms as they are used in the research project (Leedy & Ormrod, 2001:55). The researcher identified the following main concepts applied in the research:

1.6.1 Crime investigation

Orthmann and Hess (2013:8) define criminal investigation as a process of discovering, collecting, preparing, identifying and presenting evidence to determine what happened and who was responsible.

1.6.2 Crime scene

Lochner and Zinn (2015:10) state that the crime scene is the place where clues and evidence are found that will steer the investigation forward.

1.6.3 Evidence

Gilbert (2010:52) defines evidence as anything properly admissible in a court that will aid the function of a criminal proceeding in establishing guilt or innocence.

1.6.4 Fraud

Joubert (2016:166) defines fraud as unlawful and intentional making of a misrepresentation which causes actual prejudice or which is potentially prejudicial to another.

1.6.5 Forensic investigation

Benson, Jones and Horne (2015:2, 19-20) describe forensic investigation as a process of inquiry into criminal conduct in a civil or administrative matter which is an in-depth, meticulous search for the truth through the use of specialised skills, expert knowledge and scientific methods and techniques.

1.6.6 Handwriting

Handwriting is explained by Fish, Miller and Braswell (2011:289) as complex moves necessary to create a signature or handwriting consisting in a number of intersections and turning points.

1.6.7 Insurance fraud

Whitacker (2018:1) describes insurance fraud as any deliberate deception or misrepresentation perpetrated against an insurance company or agent for the purpose of unwarranted or improper financial gain or getting a profit that could occur during the process of buying, using, selling and underwriting insurance by failing to comply with terms of the insurance agreement.

1.6.8 Questioned documents

James, Nordby and Bell (2014:451) defines questioned document as any object with handwriting or print whose source or authenticity is in doubt.

1.6.9 Identification

Lochner, Horne and Zinn (in press) define identification as a process of using class characteristics to identify a particular object.

1.6.10 Individualisation

Individualisation is referred to by Lochner et al. (in press), as the demonstration that a particular sample is unique even amongst members of the same class.

1.7 VALUE OF RESEARCH STUDY

De Vos, Strydom, Fouche and Delpont (2011:107-108) mention that the importance of research is that it must be usable for practical purposes and useful to relevant people targeted by the study.

- **Investigation environment**

The researcher expects that when this research is finalised and its recommendations are implemented, it will assist in improving the investigative skills of investigators. It will assist investigators to understand the importance of utilising handwriting techniques to individualise the perpetrator of insurance fraud. The

Department of Justice will benefit because insurance fraud cases will be fully investigated and the court will be presented with better evidence, which will give it a clearer picture of what had transpired. It will help prosecutors to prepare evidence in a proper manner and will assist them to effectively lead evidence during the trial.

- **Academia and community**

Students who pursue their career in the investigation field and University of South Africa (Unisa) will benefit from the results of this research should it be included in learning programmes and training manuals. The community will also benefit from the results of this research as it will increase public awareness about commission of insurance fraud and the use of handwriting as an identification and individualisation technique. SAPS investigators of insurance companies and private investigators will be more competent during the investigation of insurance fraud cases. It is envisaged that it will help to increase the conviction rates of fraudulent insurance claims cases.

- **Investigation industry**

New training material can be developed to overcome the challenges of the past. The research study information will also provide information on best practices that can promote skills development in the investigation industry.

1.8 RESEARCH APPROACH AND DESIGN

Denscombe (2010:99), De Vos et al. (2011:143), Du Plooy-Cilliers et al. (2014:93), Msweli (2011:58) and Vogt, Gardner and Haeffele (2012:3) describe research design as the methods used to collect data and the methods used to analyse data. In accordance with the viewpoints of Du Plooy-Cilliers et al. (2014:28), Flick (2011:89) and Mills and Birks (2014:182) and to achieve the research results, a qualitative research approach was chosen and an empirical design plan or strategy was used to obtain the information.

According to De Vos et al. (2011:65), qualitative research is undertaken when the researcher wishes to discover what the participants' opinions and views are regarding a problem and how they experience it. In this research the researcher used a qualitative research approach in order to blend empirical evidence, obtained

from the in-depth interviews that were held with the research participants. Interviews were conducted with individuals regarding the investigation of fraudulent insurance claims to establish what the true nature of insurance fraud is and how handwriting as an individualisation technique can be used.

Denscombe (2002:124) points out that empirical data is based on real world observation, particularly to obtain information directly from the participants based on their personal experiences. Denscombe (2002:6) adds that empirical research is concerned with getting out of the office and purposefully going to look for information. This viewpoint was embraced. The researcher conducted in-depth interviews with the participants in their natural setting to address the research questions and achieve the aim of this research (Flick, 2011:89; Marshall & Rossman, 2011:59 and Mills & Birks, 2014:182).

1.9 POPULATION AND SAMPLING

Population is the totality of all the possible research participants who meet the criteria set for a particular research project (Fox & Bayant, 2014:18 and Leedy & Ormrod, 2013:97). The population of this research is all the investigators who investigate fraudulent insurance claims at Assupol Life Insurance. These 27 individuals operate as one unit and are based in the major cities in South Africa (Pretoria, Johannesburg, Durban and Cape Town) to address the needs of Assupol Life Insurance. These individuals are qualified in the same field, have similar qualifications and experience, received similar training, have similar job descriptions and are affiliated to the same affiliations.

In this study, a sample was selected from people with appropriate information about the problem under investigation (Ritchie, Lewis, Nicholls & Ormston, 2014:120). The aim of selecting a sample in qualitative research is not to generalise, but to select the participants that can provide robust, rich and deep levels of understanding of the phenomenon under investigation. There are no rules about the appropriate sample size, but because the purpose of the in-depth interviews is to find rich information, it should not be so small that data saturation will not be reached (Leedy & Ormrod, 2010:97). For this reason, the researcher drew a simple random sample of 10 people from the identified population and therefore every member of the

population had an equal opportunity to be included in the sample. The names of all the individuals within the insurance fraud investigation fraternity at Assupol Life Insurance were written separately on a piece of paper and placed in a hat and 10 names were drawn.

1.10 DATA COLLECTION

Du Plooy-Cilliers et al. (2014:147), Leedy and Ormrod (2010:146), Marshall and Rossman (2011:141) and Wagner et al. (2012:126), assert that qualitative researchers rely on interviewing, documentation, and literature studies as data-gathering techniques in a qualitative study. Empirical data was obtained from interviews and data from the researcher's experience.

1.10.1 Literature

The researcher consulted books, monographs, conference proceedings, reference materials, journal articles, newspapers, magazines, reports, theses and dissertations relevant to the aim of the research topic and research questions (Babbie & Mouton, 2011:549). The literature sources used as reference in this research have been listed in the list of references at the end of this dissertation.

The researcher attempted to use the latest published literature sources to address the research topic and to answer the research questions, and to ascertain what the situation was regarding investigation of fraudulent insurance claims where handwriting as individualisation technique was used to identify evidence and perpetrator. The data in the literature were compared with the data obtained from the participants. The information obtained from literature sources were combined with the information obtained from other data gathering techniques and reported in this format in this research document.

1.10.2 Interviews

The researcher conducted semi-structured interviews (Leedy & Ormrod, 2010:188). This was done to initiate a dialogue between the interviewer and interviewee. Open-ended questions were asked because it allowed the interviewees to express themselves in their own words and to reply and share information as freely and as extensively as they wished (De Vos et al., 2011:352 and Flick 2011:112). The

researcher used an interview schedule and also asked individually tailored questions to get clarification or probe a person's reasoning. All the research participants were asked the same questions.

The researcher put clear questions to research participants, and one question was asked at a time. The researcher avoided asking leading and sensitive questions, research participants were asked to reconstruct their experiences and were never interrupted. These questions were asked because they could provide information based on their experience of the investigation of fraudulent insurance claims. The researcher tape-recorded all responses from research participants and the recordings are kept in a code-protected safe for the period prescribed by Unisa.

- **Personal experience**

The researcher has twenty-nine (29) years' experience as a fraud investigator which he acquired in the service of SAPS and Assupol Life Insurance Company. The researcher obtained a National Diploma in Police Administration from Technikon SA, B-Tech degree in Policing from Technikon SA, Forensic Investigation and a Certificate from HJN Training, Academy Safety and Security and various SAPS training certificates related to detective service.

1.11 DATA ANALYSIS

The researcher adhered to the process of qualitative data analysis (spiral method) as outlined by De Vos et al. (2011:403-404), together with the data analysis guidelines as explained by Babbie and Mouton (2011:490-493), Leedy and Ormrod (2010:146-151), Marshall and Rossman (2011:207-219) and Warren and Karner (2015:209-215). Taking cognizance of the above-mentioned authors' data analysis guidelines, for the purposes of this research, the researcher:

- Critically read the data collected to ensure that he understood the meaning of the data and get a sense of it as a whole;
- Categorised the collected data and sorted and organised it into a logical structure by breaking up the data into smaller pieces of text by using keywords such as forensic investigation, fraudulent insurance claims, fraud, identification and individualisation. In doing so, the researcher was able to group relevant data together;

- Integrated, summarised and computerised the data. Thereafter, the researcher wrote summaries of the different data sourced from literature, and in doing so the researcher identified themes and patterns in the data; and
- Presented and displayed the findings of the data in an easy and understandable way.

1.12 TRUSTWORTHINESS

According to Du Plooy-Cilliers et al. (2014:258), Vithal and Jansen (2010:32) and Wagner et al. (2012:137), the overarching term for reliability and validity in a qualitative study is trustworthiness. To maintain trustworthiness the researcher adhered to these aspects by doing the following:

- **Credibility:** The researcher recorded data exactly as received from the research participants. Personal interviews were conducted in a safe place and research participants were given a chance to freely express themselves when answering questions. The researcher did not make any suggestions or guided the research participants during the interviews. All information gathered answered the research questions. To increase the credibility of this research the researcher spent a long time with the participants to understand them better and to gain insight into their lived experiences (Du Plooy-Cilliers et al., 2014:258). Reliability was improved by triangulation, for example using multiple sources of data gathering.
- **Transferability:** If another researcher used the methods under similar circumstances, and applied the same qualitative methods, the same results would be obtained (Welman, Kruger & Mitchell, 2007:145).
- **Dependability:** Dependability refers to the quality of the integration process between the collection of data, the analysis of collected data and the theory generated from the data collected. The researcher utilised the spiral method to analyse the data which helped to prevent the researcher from making the wrong deductions and interpretations. The researcher was cautious and did not make his own deductions or suggestions to direct the viewpoint of the research participants. Care was taken not to manipulate the data to fit a certain viewpoint (Botes, 2003:183).

- **Confirmability:** The researcher kept all sources from which data had been collected to ensure confirmability. The researcher used the spiral method to analyse the literature and empirical data. The detailed explanation of how the data was collected and analysed support confirmability. Should other researchers scrutinise the research design and investigate the data collected, they will come to similar conclusions (Bless, Higson-Smith & Sithole, 2013:237).

1.13 ETHICAL CONSIDERATIONS

The researcher followed core ethical principles and guidelines and adhered to the Policy on Research Ethics of University of South Africa. The ethical considerations as stated by Creswell (2014:94), Flick (2011:215), Henning (2018:73-74) and Leedy and Ormrod (2010:101-104) include the following:

- **Protection of the participants from harm.** The researcher and participants agreed on a place to meet in order for him to interview them individually. Participants were interviewed in an open and stress-free environment.
- **Obtain informed consent.** All participants participated voluntarily and were well informed concerning this research so that they could make the correct decision regarding their participation. They were informed that they had the right to withdraw at any stage of the interview if they wished to do so. All participants who were interviewed had agreed to be interviewed.
- **Right to privacy should be respected.** The identity of the participants was not revealed and the information shared by them is kept confidential. Their responses were presented in an anonymous manner in the dissertation.
- **Honesty with professional colleagues.** The data used in this research are true and the researcher did not fabricate any data in order to favour or support findings made in this research. The researcher acknowledged all sources he used in this research to avoid plagiarism. Participants in the research were informed of the processes to be followed and the purpose of this research. All the participants were treated equally.

1.14 RESEARCH STRUCTURE

The researcher divided this research report into chapters as shown below which assisted him to address the research questions and ensured that the problem under investigation was properly discussed.

Chapter Two: The doctrine of crime investigation

In this chapter the researcher discussed the history of criminal investigation, the crime investigation process, the objectives of the crime investigation, investigation of crime scene, objective and subjective evidence, collection of physical evidence, identification and individualisation processes in crime investigation, as well as the features common to the two concepts.

Chapter Three: Investigation of fraudulent insurance claim

In this chapter the researcher discussed fraud, with its elements, insurance fraud, documentary evidence, handwriting, handwriting as an individualisation technique, and collection of documentary evidence.

Chapter Four: Findings and recommendations

In this chapter the researcher concluded by discussing what he discovered during the research process and by making recommendations on the basis of what he found on the individualisation technique investigators could use in investigation of insurance fraud cases.

2. CHAPTER TWO: THE DOCTRINE OF CRIME INVESTIGATION

2.1 INTRODUCTION

Criminal investigation starts immediately after a crime has being reported. The main purpose is to find out what type of crime has been committed through information received when a crime is reported. It is important for investigators to know the elements of crimes so that they can know exactly what type of crime was committed and what type of evidence has to be obtained to prove the elements of the crime that was reported. This will lead to the identification, individualisation, tracing and arrest of the perpetrator. Criminals will always utilise new technology to commit a crime.

The researcher being an experienced criminal investigator is of the opinion that crime investigation is a difficult task. It requires a dedicated investigator who is willing to continuously learn about new techniques used by perpetrators to commit crime and that could assist to trace perpetrators. This is also mentioned by Orthman and Hess (2013:3). They are of the opinion that crime investigation is a complex field and investigators need be clear about how to approach any crime or crime scene investigation.

In this chapter the researcher briefly debates the history of crime investigation. The most important concepts of crime investigation are discussed, such as fraud in general including investigation of fraudulent insurance claims, crime scene investigation, collection, prevention of contamination, packaging and chain of custody of physical evidence, identification and individualisation of evidence and identifying the perpetrator.

2.2 A BRIEF HISTORY OF CRIME INVESTIGATION

Osterburg and Ward (2010:12) mention that the concept of criminal investigation can be traced back thousands of years, to early times in China and Asia, as well as the Middle East. During this period agents of government used many legal, as well as illegal approaches as a means of identifying transgressors of public order. Palmiotto (2013:1) traces back the history of criminal investigation by stating that during tribal and clan life ordinary people performed the police task. He further states that, when any behaviour occurred that violated the rules of the clan, it was

the responsibility of all members of the clan to search and identify the suspect and determine the means and degree of sanctions to be imposed.

The field of crime investigation with the purpose to identify the perpetrator began to take shape in 1910 when Edmond Locard set forth his exchange principle, stating that criminals always remove something from a crime scene or leave incriminating evidence behind (Hess, Orthmann & Cho, 2017:8). According to Van Rooyen (2012:2), the changing world of the investigation of crime and the identification of the perpetrator has proved to be a dynamic process when compared to earlier and less complicated eras. He further states that today investigation has expanded to nearly every aspect of daily living; in fact it has become an integral part of contemporary life.

Benson et al. (2015:10-11), and Van Rooyen (2012:1-2) mention that investigation in the modern Republic of South Africa (RSA) is no more the mandate of the SAPS alone, but involves statutory investigators and corporate investigators. In the SAPS, statutory investigators and corporate investigators have two primary laws to comply with, namely the Constitution of the RSA, 108 of 1996 and Criminal Procedure Act (CPA), 51 of 1977. According to Benson et al. (2015:14-16), Joubert (2016:227), Stelfox (2009:1), Thibault, Lynch and McBride (1998:163) and Van Rooyen (2018:7), the police investigators are still the primary role players in criminal investigation. Joubert (2016:227) and Van Rooyen (2018:7) refer to section 205(3) of the Constitution of the RSA and agree with Benson et al. (2015:10-11), that the police are responsible for investigation of crime in RSA.

Van Rooyen (2012:4) and Venter, Lochner and Horne (2018:129) in their explanation of crime investigation refer to the rulings made by the High Court of RSA in the cases of Botha and others. They persuasively argue that private investigators and corporate investigators can investigate criminal cases which had previously been the sole mandate of SAPS. They mention that the high court has in fact expressed its acceptance of the fact that private and corporate investigations do occur. This judgement acknowledged and gave approval to the existence of private companies' investigators, other than the SAPS to investigate crime-related matters.

Brandl (2014:6) mentions that criminal investigation can be either reactive or proactive. Reactive investigations are traditionally the manner in which police become involved in the investigation of crime. The crime occurs, and the police respond or react to the crime. The police are typically in reactive mode when investigating crimes such as homicide, fraud, robbery, and rape.

2.2.1 Reactive investigation

Benson et al. (2015:35), Brandl (2014:6), Hess et al. (2017:15), Joubert (2016:227), Kilfeather (2011:4) and Lyman (2011:20-21) state that the traditional reactive investigation usually commences only when a complainant reports a crime to the police or after observation by a police officer of a crime in progress. This indicates that the police investigators are mainly reactive. Brandl (2014:6) and Van Rooyen (2007:10) assert that reactive investigation consists of stages, namely the discovery of the crime and the police response, the preliminary or initial investigation, the follow-up investigation and closure.

2.2.2 Proactive investigation

Lyman (2011:21) maintains that proactive investigation differs from reactive investigation, namely that the investigation is conducted before the crime is committed and the suspect is identified before he commits the crime.

Benson et al. (2015:36-40), and Konov (2011:2) state that the police has now moved from reactive investigations to proactive investigations. They believe that investigators are now monitoring criminals who are part of an ongoing pattern of crimes and they act before crime can take place. They further mention that crime has become an organised business enterprise, and for this reason the police has changed from a reactive approach, with more emphasis on proactive investigations.

Brandl (2014:6) explain the undercover investigation paradigm. They describe proactive investigation as an undercover investigation, usually initiated by the police prior to the occurrence of a crime. Kilfeather (2011:4) states that in the proactive investigation, the police select the target, and start collecting facts and information about such criminal activities. Such an investigation is done undercover and the criminal or organisation that is investigated is unaware that it is under investigation. Benson et al. (2015:39), conclude by saying that for modern day policing and

investigation to be effective, proactive, intelligence gathering driven investigations are a requirement. According to Benson et al. (2015:19), intelligence gathering driven investigations should follow a process which is elaborated on in the next section.

The question was put to participants whether they followed any process when investigating crime or a fraudulent insurance claim. The majority of participants responded by stating that they start their investigation when they receive a mandate or instruction to investigate. The researcher concludes that crime investigation is the responsibility of both police and statutory and corporate investigators, but police are still primary role players and investigators follow up with a reactive investigation.

2.3 THE CRIME INVESTIGATION PROCESS

According to Benson et al. (2015:19); Brandl (2014:3); Hess et al. (2017:8); Monckton-Smith, Adams, Hart and Webb (2013:2); Orthmann and Hess (2013:8), Osterburg and Ward (2010:5), Van Rooyen (2018:2) and Woods (2013:11), a criminal investigation is a process of discovering, collecting, preparing, identifying and presenting evidence. According to them this is done to determine what happened, and who is responsible for the crime committed and to secure a conviction of the perpetrator. Monckton-Smith et al. (2013:2), further state that the basic crime investigation process is broadly similar in every country or jurisdiction across the world.

Palmiotto (2013:4), in his explanation of a crime investigation process, refers to it as a thinking and reasoning process. Lochner (2014:6) argues that the sole purpose of a crime investigation process is the search for the truth to determine what happened. To determine the truth Lochner et al. (in press), reason that the investigation process can be seen as reconstructive process.

The majority of participants follow a specific process when investigating a crime, including a fraudulent insurance claim. After receiving a mandate to investigate, participants state that they study the report, make a list of people involved, interview witnesses and obtain statements, obtain evidence and confront the suspect and obtain his explanation. Lastly, the investigator reports to the authorities whether he is going to open a criminal case or institute disciplinary action.

- **A reconstructive process**

Sennewald and Tsukayama (2015:3) are of the opinion that a reconstruction process is necessary when an event has taken place and the investigator must recreate what happened after the fact. He further states that this type of investigation is overt in nature, meaning that it is carried out in the open with the purpose of finding evidence.

Fish, Miller, Braswell and Wallace (2014:61), Hess et al. (2017:8), Saferstein (2011:148), Stelfox (2009:1) and Van Rooyen (2007:19) emphasise the fact that the reconstructive process is a logical process in which a conclusion follows from specific facts. This will help to establish what crime has been committed and who is involved in a commission of the crime. Fish et al. (2014:139), further state that in the reconstruction process of the crime scene finding evidence remains the primary purpose for proving linkages between a victim, a crime scene and perpetrator.

- **Deductive and inductive approach**

Marais (1992:3), Siegel and Mirakovitz (2016:49) and Van Graan and Budhram (2015:49) mention that by reconstructing the events and the crime scene the investigator strives to form a realistic hypothesis about what happened. The reconstruction can be based on a deductive or inductive approach. If the deductive approach is used, the investigator reconstructs the events by considering the general appearance, evidence found on the crime scene and circumstances at the crime scene in order to find possible explanations for the events. The inductive approach requires the logical generalisation of events at the crime scene or during the investigation to be analysed against the evidence on hand to reach a conclusion about the situation of the incident.

2.4 CRIME INVESTIGATION

After analysing the explanations and discussion of crime investigation by Lochner (2014:6) Lochner et al. (in press), Orthmann and Hess (2013:8), Van Rooyen (2012:13) and Van Rooyen (2018:5) the undermentioned themes emerged as important concepts.

2.4.1 The systematic and organised process of collecting evidence

Brandl (2014:3), Hess et al. (2017:8), Osterburg and Ward (2010:5) and Van Rooyen (2012:13) state that criminal investigation is a systematic search and collection of evidence with the aim to find the truth. These authors argue that in order for investigators to find the truth, they need to approach any crime investigation or crime scene in a methodological and orderly manner to find and collect objective and subjective evidence.

Benson et al. (2015:31-32), and Lochner (2014:6) caution crime investigators about their approach to crime investigation. They remind investigators to follow a systematic plan of action or approved investigation process and procedure. According to Benson et al. (2015:32), the absence of a systematic and orderly plan of action can lead to important subjective and objective evidence being ignored or lead to the ineffective collection of the evidence. This may lead to incorrect assumptions and deductions and might well send the investigation process off in the wrong direction (Benson et al., 2015:32).

Lochner and Zinn (2015:10) and Lochner et al. (in press), raise an important aspect regarding the manner in which to look for objective and subjective evidence. They explain that crime and crime scene investigation and the search for objective and subjective evidence cannot be done in a haphazard manner. If this is done, they point out, objective and subjective evidence left behind on a crime scene by the criminal will not be identified and collected.

- **Objective and subjective evidence**

From a juridical viewpoint evidence is defined by Adams, Caddell and Krutsinger (2004:77), Dempsey (2003:107), Dutelle (2011:3), Fisher (2004:1), Gardner (2012:7), Joubert (2016:363), Lyman (2011:652), Singh and Ramjohn (2016:5), Taylor (2000:1) and Van Rooyen (2012:106) as information, in the form of statement or objects which can prove the elements of a crime or disprove facts in dispute. From a crime investigation background, Bellengere and Palmer (2013:3) and Zinn and Dintwe (2015:442) argue that evidence is information that has been admitted in civil or criminal proceedings which is obtained legally, being relevant and having evidential value. The participants were asked to define evidence in their own words.

They did give a proper explanation. This according to the researcher is due to their academic qualifications. Direct quotations will illustrate their proper understanding of the concept:

Evidence is something that can be seen ... it can be seen all over ... immediate evidence that you can use to prosecute someone.

Evidence is any information or anything that will help you to crack the case or to resolve that particular issue that you are dealing with. It can be documented information or physical information that will help you as a proof of a crime committed.

Evidence is any truthful fact that spells out the truth about the crime that was committed.

Evidence is information that we gathered during our investigation.

Ogle (2012:260), Saferstein (2011:47-48) and Van Rooyen (2012:16) state that objective evidence could consist of any object, substance, trace or impression that can be analysed. According to Lochner and Zinn (2015:7) and Van Heerden, (1982:1), objective clues refer to objects that are directly or indirectly linked with a crime.

Lochner (2014:7) and Lochner et al. (in press), alerts the reader to the fact that objective evidence is more reliable than subjective evidence. These authors further state that objective evidence is physical evidence and it does not lie, it remains the same, it never changes and does not suffer from memory loss.

Lochner et al. (in press), and Van Rooyen (2012:16) argue that subjective evidence is the evidence of people who are directly or indirectly involved in the commission of crime, such as victims, complainants, eyewitnesses and perpetrators. Nickell and Fischer (2017:4) agree with Lochner (2014:7) and explain that subjective evidence is personal evidence that is coloured by the person's attitude and perceptions.

A question was posed to participants to differentiate between objective and subjective evidence. All participants' responses were that objective evidence is evidence that can be measured, seen and presented in court and subjective evidence cannot be measured. One respondent replied that subjective evidence is: "some kind of hearsay evidence." The participant with the most experience as a fraud investigator explained objective evidence as: "You can't change it. That's how it is."

The second theme that arose from the analyses was the reconstruction of past events. In the investigation of a crime milieu objective and subjective evidence is used to reconstruct past events and this is discussed in the next paragraph.

2.4.2 Reconstruction of past events

Various authors, namely Benson et al. (2015:19), Brandl (2014:3), Hess et al. (2017:8), Orthmann and Hess (2013:8), Osterburg and Ward (2010:5) and Van Rooyen (2018:07) state criminal investigation as the lawful tracing of people and instruments with the purpose to reconstruct past events. The above-mentioned authors argue that the instruments and people may, directly or indirectly, contribute to the systematic and organised reconstruction of a crime which took place in the past. Fish and Fish (2014:7) place emphasis on the examination of truth as an objective of crime investigation.

2.4.3 The truth

According to Benson et al. (2015:19), Lochner (2014:6) and Van Rooyen (2012:13), criminal investigation is a systematic search for the truth. Brown (2001:3), Gilbert (2004:58) and Pena (2000:1) in their discussion of crime investigation, highlight the important role that the truth plays in crime investigation. They argue that the truth stands central to the objectives of crime investigation and that the truth can also include the innocence of a suspected or accused person. The viewpoint of the above-mentioned authors is that criminal investigation must at all cost reveal the truth of what have happened in the past and who was involved in the commission of the identified crime, no matter if the outcome of the investigation is not in favour of the prosecution.

Benson et al. (2015:12), state that the terms goals and objectives are often used interchangeably. Benson et al. (2015:12), is of the opinion that objectives are a measurable milestone on the investigation road which is discussed in the next section.

The participants were asked what they understood of the concept crime investigation. The majority of the participants refer to the explanations and discussions offered by literature. Some of the participants however refer to the collection of evidence and the use of science to explain what happened during the

commission of a crime. To highlight the responses and meaning the majority of the participants attached to concept of crime, one participant's response will be quoted: "Crime investigation is all about revealing the truth or revealing any wrongdoing that happened in the past, identifying the suspect by using different techniques." From this the researcher infers that the participants refer to the objectives of crime investigation which are examined in the next section.

2.5 OBJECTIVE OF CRIME INVESTIGATION

Lochner (2014:4) strongly believes that criminal investigation takes place with definite objectives in mind which describes more precisely a commitment to a goal which must be reached within the appointed time and according to a specified standard.

Benson et al. (2015:11-12), Dutelle (2017:4), Fish and Fish (2014:7) Hess et al. (2017:11), Horswell (2004:7), Lyman (2011:15), Monckton-Smith et al. (2013:2), Palmiotto (2013:4-5), Pena (2000:1) and Stelfox (2009:2) state that the objectives of criminal investigation is to find the truth by determining whether crime has been committed or not, legally obtain information and evidence to identify the responsible person, arrest the suspect, recover stolen property and present the best possible case to the prosecutor. Joubert (2016:227) and Van Rooyen (2018:7), from a judicial viewpoint, reason that the objectives of crime investigation is to identify and investigate the crime that was committed by obtaining sufficient evidence to prove the suspect's guilt and to start the prosecution process.

2.5.1 Identifying the crime

The correct identification of crime is seen by Bennett and Hess (2004:5), Benson et al. (2015:11-12), Hess et al. (2017:11), Joubert (2016:227) and Swanson, Chamelin and Territo (2003:28) as of fundamental importance during crime investigation. They argue that mistaken identification can give rise to the investigation being sent in the wrong direction and vulnerable evidence being lost or not collected. The researcher, being an experienced investigator, agrees with said authors and argues that the wrong identification of the crime will hamper the investigation process and investigators will end up collecting the wrong or inadmissible objective and subjective evidence.

2.5.2 Identifying the perpetrator

Dowling (1997:2), Marais and Van Rooyen (1990:20) and Osterburg and Ward (2010:8) argue that one of the primary objectives of criminal investigation is to identify the perpetrator. They are of the opinion that the ability to bring a suspect to justice depends on the objective and subject evidence necessary to prove the elements of the reported crime. Benson et al. (2015:54), Joubert (2016:339), Lochner and Zinn (2015:40), Lyman (2011:140), Van Graan and Budhram (2015:62) and Van Rooyen (2012:18) state that the criminal can be identified in one of the following ways: confession, eyewitness testimony, possession of stolen property, examination of physical evidence, modus operandi, circumstantial evidence and handwriting. Fish et al. (2011:284), is of the opinion that during investigations many document cases involve handwriting identification. They argue that perpetrators can be identified by their handwriting.

In response to the probing question “Do you have objectives in mind when you investigate fraudulent insurance claims?” All the participants answered in the positive. They all replied that they wanted to identify the suspect by means of his or her handwriting. They all said that their work description was the investigation of fraudulent claims.

Van der Westhuizen (1996:7) sees the identification of the perpetrator as the link between the crime and the facts collected during the investigation. Lochner and Zinn (2015:10) refer in their discussion to the place where evidence was found. They mention that the evidence that is used to identify a criminal is found on a crime scene. A crime scene is according to them the engine room of an investigation which is examined in the next section.

2.6 CRIME SCENE

Gilbert (2010:80), Houck, Crispino and McAdam (2018:20), Lochner and Zinn (2015:32), Lyman (2011:651), Palmiotto (2013:97), Van der Watt (2015:161) and Zinn and Dintwe (2015:450) explain a crime scene as a place where a crime took place. The following authors, Dutelle (2017:12), Fisher (2004:29), Lochner and Zinn (2015:38) and Stelfox (2009:126) are of the opinion that a crime scene is a place where objective and subjective evidence is found. Van Rooyen (2007:18) argues

that there will always be objective and/or subjective evidence on a crime scene and, if it is not found, it is because the investigator does not know how to identify it.

The majority of the participants described a crime scene as a place where evidence can be found. The researcher will argue that participants responded to this question in the same manner because of their experience in the field of investigation. An additional question was posed to participants whether a document could be a crime scene and all participants considered this to be the case.

Berg and Horgan (1998:14) argue that the crime scene is the focus point of any investigation. To expand on Berg and Horgan's (1998:14) viewpoint, Gilbert (2004:91) contends that the value of a crime scene was in the past overlooked because investigators did not understand that the crime scene is the key to the successful investigation of any crime.

In their discussion of a crime scene Genge (2004:3), Lochner and Zinn (2015:32-33) and Van der Watt (2015:162), refer to the different places which can constitute a crime scene. They point out that the crime scene goes beyond the actual location where the incident occurred. According to their argument, it includes the staging and planning areas, the routes used by the suspects to and from the crime scene and the routes between the different crime scenes.

Lochner and Zinn (2015:33) state that the manner in which the investigator examines and handles the crime scene may be a decisive factor in the success of the investigation. They reason that if investigator approaches the crime scene systematically, relevant objective and subjective evidence will be identified, marked, collected and preserved. This is according to the researcher also applicable to an insurance fraud crime scene.

2.6.1 Insurance fraud crime scene

According to Easton and Taylor (2011:233) and Lochner and Zinn (2015:33) every crime scene will be different depending on the type of crime that was committed. Van Rooyen's (2007:18) viewpoint is that crimes such as fraud does not have fixed boundaries and that crime scenes will always differ. In relation to documents, Van der Watt (2015:161) argues that a document could also constitute a crime scene.

The researcher will argue that, in the case of insurance fraud, evidence will be found on the hardcopy documents, such as claim forms, death certificate, identification document and beneficiary nominated document or electronic documents. The researcher is of the viewpoint that a document is a crime scene because from his experience he learned that evidence can be found on a document, for example the writing, fingerprints and the document itself.

In fraud investigation cases it is important for investigator to know the environment from where a fraud is reported. This will determine the area, boundaries and place(s) where the crime was committed (Van Rooyen, 2012:144). It is Van der Watt's (2015:162) viewpoint that implicit or hidden crime scenes are mostly associated with insurance claim fraud. The above-mentioned authors point out that perpetrators usually hide or destroy the documents they use to commit fraud. Taking this into consideration, the researcher will claim that a fraud crime scene may be a dust-bin, table drawer and safes in offices or houses, or the person's possessions, for example handbag, pockets, briefcase and other objects used to conceal evidence.

Dutelle (2017:12), Hess et al. (2017:138-139), Lochner and Zinn (2015:38) and Stelfox (2009:126) in their discussion of a crime scene caution crime investigators about the approach of a crime scene. It should not be approached in a careless manner and the aim should be to protect the crime scene.

2.6.1.1 Protection of a fraud crime scene

Van der Watt (2015:165) emphasises the importance of cordoning off a crime scene. Hess et al. (2017:138-139), Lyman (2011:65, 291) and Van der Watt (2015:165) point out that cordoning off the crime scene is to protect any objective and subjective evidence. In this regard Van Rooyen (2007:18) and Lochner and Zinn (2015:10) refer to the golden rule of crime scene investigation which, according to the researcher, will also be applicable to an insurance claim fraud scene. They caution the investigator not to touch, change, remove or add anything to a crime scene before objective or subjective evidence is identified, documented, measured and photographed. It is argued by Hess et al. (2017:138), Lochner and Zinn

(2015:38) and Lochner et al. (in press), that in an unprotected crime scene objective evidence will degrade, diminish, disappear, be contaminated or destroyed.

Lochner and Zinn (2015:24-29), Lochner et al. (in press), and Lyman (2011:74) explain the danger of allowing unnecessary people onto the crime scene. The authors warn investigators about the contamination of objective evidence if a crime scene is not protected. According to them, proper protection of a crime scene will prevent the transfer of material from one piece of objective evidence to another or from people to objective evidence. From practical experience the researcher echoes the same viewpoint.

For Lochner and Zinn (2015:43) it is important that the approach and the investigation of the crime scene is executed correctly, systematically and in an orderly manner so that no exhibit is destroyed or contaminated. It is argued by various researchers, such as Fish et al. (2011:91), and Lochner et al. (in press), that in the investigation of any crime scene there are four very important investigative concepts that are applicable. These concepts are the Locard principle, chain of custody, contamination of evidence and the principle of identification. The first three concepts are discussed in the next paragraphs and principle of identification is discussed in paragraph 2.6.

- **The Locard principle**

According to Dutelle (2017:8), Fish and Fish (2014:10), Lyman (2013:39), Sutton, Trueman and Moran (2017:17), Van Graan and Budhram (2015:45-46) and Van Rooyen (2012:20), the Locard exchange principle is one of the most significant and influential concepts in the history of crime investigation. The authors state that the hypothesis of the Locard exchange principle is that some form of evidence is usually left behind when two objects or people come into contact with each other. Fish and Fish (2014:10) provide an example and mention that, when a perpetrator enters a crime scene or interacts with a victim, the perpetrator leaves something behind at the crime scene and takes something away. The statement made by Fish and Fish (2014:10) was seen by Lee, Palmbach and Miller (2011:16) as the principle on which crime and crime scene investigation is based. This means that in the case of insurance fraud there will always be an exchange of objective evidence. The

researcher bases this statement on the fact that there will be interaction with the document and the instruments used to commit insurance fraud.

- **Chain of custody**

According to Fisher (2004:10), Gilbert (2004:105), Lochner et al. (in press), Saferstein (2011:43) and Van der Watt (2015:199) the chain of custody may also be referred to as the chain of evidence or chain of possession. According to them, the chain of custody is intertwined with just about every phase of the investigation process. Fish et al. (2011:22), Ogle (2012:24) and Zinn and Dintwe (2015:439) state that chain of custody is a process put in place to maintain the integrity of objective evidence and to record its whereabouts and location during the investigation. In practice the chain of custody can be described as the tracing of the flow of exhibits from one point to the next point or person.

It is mentioned and elaborated on by Baxter (2015:525), Brandl (2014:114), Houck et al. (2018:16), Seigel (2011:50), Siegel and Mirakovitz (2016:38) and Van Rooyen (2012:173-175) that from the moment evidence is received, its chain of custody must be maintained. They suggest that keeping record of what type of objective evidence is received, when it was received, from whom it was received, where it has been in custody and what the condition of the evidence is until it is admitted in court as evidence will contribute to the maintaining of the chain of evidence. Baxter (2015:525) holds the viewpoint that if any change has occurred it should be documented with the reasons for the change. According to Dutelle (2017:23), Marais (1992:13) and Van der Watt (2015:200) courts need proof that the evidence before the court is the same and in the same condition as it was when found and collected at crime scene. The standpoint of Saferstein (2011:40) is that the chain of custody will not be broken if the objective evidence is kept in its original condition.

All the participants understood the concept chain of custody and were able to present lengthy explanations on how to maintain the chain of evidence. A significant response of one of the participants in answer to the question 'explain in your own words the concept chain of custody' expressed the viewpoint of all the participants:

To obtain the evidence especially in the criminal sense you must present that evidence in court or whether in a Departmental hearing and that evidence must be trusted ... it is very important to maintain that chain the evidence ... must be

kept in a safe place and must not be disturbed by anything ... must be checked by authorized people only.

Girard (2018:18) and Van Rooyen (2012:173) state that chain of custody starts with the discovery of objective evidence, and should be maintained. Saferstein (2011:48) recommends the proper record keeping of objective evidence. The viewpoint of Fish and Fish (2014:22) about the chain of custody is that it is of a documentary nature and it involves proper documentation of the objective evidence found during the investigation of the crime or crime scene. Fish and Fish (2014:60) further state that documentation should identify everyone who had contact, handled and taken in his custody any objective evidence. This viewpoint was also embraced by all the participants who place emphasis on the signatures of investigators who handled and processed objective evidence.

Osterburg and Ward (2014:108) draw the reader's attention to the danger of the extensive handling of objective evidence. The authors state that the more people handling the evidence, the greater the potential for conflict in, or contradiction of, their testimony. He further states that any disruption in the chain of custody may cause evidence to be inadmissible and even if it is admitted, a disruption can weaken or destroy its probative value.

The participants were asked to provide information from their experience on how they maintain the chain of custody in fraudulent insurance claim investigations. The majority of participants' responses were not clear, logical and understandable. One participant however responded by saying that copies can be used for filling in a case docket and the original document must be kept in a safe place for court purposes. From the biographical information it was established that all participants have tertiary qualifications and a combined experience of 122 years in the field of crime investigation. The researcher had expected better responses. This information came to the fore after the analyses of the interviews and would have been probed if the information had been known at the time of the individual interviews. The researcher therefore suggests that further research be done into this matter.

2.6.2 Contamination of evidence

Hess et al. (2017:138), Lochner and Zinn (2015:20) and Lochner et al. (in press), mention that contamination occurs when there is a transfer of evidence or anything

is introduced to the original crime scene or to the objective evidence. They state that contamination can be caused by many things, but handling of physical evidence by hand is the main reason for contamination. The above-mentioned authors also include weather conditions, uncontrolled activities at the crime scene and improper handling of objective evidence as additional causes of contamination.

Manamela and Mokwena (2015:164) and Ogle (2012:25) state that contamination occurs when evidence at the crime scene is altered, removed or destroyed. Contamination affects the integrity of evidence and so renders such evidence inadmissible in court. Objective evidence left unprotected can collect dust as well as other air polluting substances which could have a detrimental effect on it (Ogle, 2012:25).

Participants were asked to define the concept contamination of evidence. All participants provided a satisfactory response by stating that contamination of evidence occurred when evidence is compromised, tampered with or the chain of custody is broken. One participant acknowledged the responsibility of investigators to prevent contamination of evidence. His response was: "The concept contamination is when we as investigator did not handle the evidence properly then it's contaminated." Taking the response into consideration, it is important for this research to investigate how contamination can be prevented.

- **Prevention of contamination to evidence**

Orthman and Hess (2013:128) mention that evidence is directly affected by what happens to it immediately following the crime. According to Brandl (2008:150), Lochner et al. (in press), Ogle (2012:25) and Orthman and Hess (2013:128) the prevention of contamination of objective evidence starts at the crime scene and continues through the entire process of criminal investigation.

Brandl (2008:150), Lochner and Zinn (2015:41-44), Marais (1992:11), Saferstein (2011:41) and Van Rooyen (2007:109) advise investigators about the procedures they should follow to prevent contamination of objective evidence which is according to the researcher also relevant to documentary evidence. They state that investigator needs to cordon off the crime scene. Physical evidence which includes documentary evidence should be identified, marked, protected and documented

until it is collected and packed. Such physical evidence must be packed and stored separately. According to Nickell and Fischer (2017:148), documentary evidence must be handled with clear gloves to prevent evidence contaminated with other substances that may leave their imprints.

Saferstein (2011:44) warns investigators against the improper handling of objective evidence. He reminds the investigators that all evidence needs to be handled with great care. If this is done, he argues, it will prevent contamination and will help to maintain the chain of custody.

A question was put to participants on how they prevent contamination in a fraudulent insurance claim. The majority of participants mentioned that they used gloves when handling evidence, and kept evidence in a safe. It was mentioned by four participants that proper record keeping helps them to prevent contamination to evidence.

2.6.3 Collection of objective evidence

Dutelle (2017:16-17) and Ogle (2012:25) is of the opinion that objective evidence should be collected in a systematic and careful manner to prevent contamination and to maintain the chain of evidence. For this reason, it is important to take note of what Girard (2018:18) mentions. According to him, all evidence including documentary evidence will be subject to examination by the court to determine if evidence was properly and correctly collected. Dutelle (2017:16-17) and Siegel and Mirakovits (2016:485) suggest that objective evidence should be correctly identified, protected, documented and collected. They however put emphasis on the correct collection methods. In this regard Lochner and Zinn (2015:45) mention that objective evidence that has been correctly collected will reflect an image of professionalism.

Dutelle (2017:23), Marais (1992:13), Ogle (2012:25), Saferstein (2011:39), Van der Watt (2015:197) and Van Rooyen (2012:23) state that when objective evidence in the form of a document is collected at a crime scene, or discovered during the investigation process, it should be marked, identified, inventoried and preserved to maintain its original condition.

Ogle (2012:299), Van Rooyen (2007:304-305) and Van Rooyen (2012:159) state that it is important that the necessary precaution be taken to ensure that documentary evidence is preserved in its original condition and that is not impaired or damaged, or its condition worsened. The authors are of the viewpoint that documentary evidence, should not be:

- Directly marked,
- Mutilated, or torn in any manner,
- Handled with soil hands,
- Placed on a dirty desk or table top, or put in a dirty briefcase,
- Folded in any way, or frequently unfolded and refold,
- Carried it in an investigator's pocket or any place where it can be wrinkled,
- Exposed to heat, moisture, or sunlight, or
- Exposed to chemical fumes or wash powders.

Lochner and Zinn (2015:44) and Van Rooyen (2012:159-160) further urge investigators to mark evidence at the crime scene and to ensure that evidential value of evidence is not destroyed. They should not trace or underline any words on a questioned document or leave it uncovered or unprotected. They suggest that questioned documents should not be handled or filed without first being placed in a transparent or protective envelope.

Van der Watt (2015:194-195) and Van Rooyen (2007:173) mention some general rules for the collection and handling of documentary evidence being examined for fingerprints:

- Place the document in a clean container such as an envelope or plastic bag designed for the purpose;
- Handle the document with clean rubber gloves; and
- If the document is folded, unfold it and make copies of it which will be used during investigation.

Van der Watt (2015:194-195) and Van Rooyen (2007:173) further recommend to investigators not to damage the documents by using a pin or by punching holes in

them, not to write anything on the documents and to keep detailed records of documents.

Evidence is collected with the purpose to identify and individualise the perpetrator. In the next section the terms identification and individualisation are investigated from the point of view of crime investigation as they are identified as one of its main aims (see paragraph 2.5.2).

2.7 THE MEANING OF IDENTIFICATION

Identification is defined by Champod (2015:95), Lochner et al. (in press), and Osterburg and Ward (2010:36), as a classification process by which an entity, person or object is placed in a predefined class or category based on shared or similar characteristics. Van Graan and Budhram (2015:47) explain identification as a process that utilises the class characteristics of an object or known substances to compare evidence collected from a crime scene. Fisher and Fisher (2012:5), Girard (2015:40), Saferstein (2011:102) add that identification determines the physical or chemical identity of an object with the most certainty that existing analytical techniques will permit. Ogle (2012:9) defines identification as the collective aspects of the set of characteristics by which a thing is definitively recognisable or known. Gardner (2005:23) mentions that handwriting can be identified on a document. If it is individualised it has evidential value. Handwriting that is been individualised goes through a process of examination and comparison to single out the author or the individual who wrote the document.

Objects are identified by comparing their characteristics with those of known standards or previously established criteria. Inman and Rudin (2001:123) mention that when comparing handwriting, factors such as variations should be carefully considered to determine whether they are normal, abnormal or alien. If all factors are not taken into consideration, unfounded deductions can be made.

According to Chisum and Turvey (2000:6), Marais (1992:20) and Van Graan and Budhram (2015:52), it is important that a process of identification must be further substantiated by a process known as individualisation (see paragraph 2.8.). Marais (1992:20) argues that there is a clear distinction between individualisation and identification. He states that one follows the other and they are complementary.

According to Inman and Rudin (2001:54), identification is a step to individualisation, and sometimes it is an end in itself. Horswell (2004:6), Marais (1992:20) and Van Graan and Budhram (2015:65) state that identification that is not followed by or without individualisation has no evidential value, it merely gives direction to the investigation of an incident, victim or perpetrator.

A question was posed to participants to define the concept identification. The majority of participants could not define identification. Four participants responded that identification means to identify a person or an object without further explanation to their answer. This indicated that they lack knowledge on this concept of identification. The researcher recommendations are given in chapter four to address the problem of lack of knowledge about identification the investigators display.

2.8 THE MEANING OF INDIVIDUALISATION

Bell (2004:8), Lee et al. (2007:183-184), and Lochner et al. (in press), mention that the individualisation process relies on a comparison of two objects. Van Graan and Budhram (2015:46-65) explain that individualisation involves activities that are aimed at collection of objective evidence that can prove that a crime has been the act of a particular person and excluding all others beyond the required burden of proof. Van Graan and Budhram (2015:64) and Van Rooyen (2012:21) describe individualisation as a process that starts with identification.

A question was put to participants to explain, according to their experiences the concept individualisation. Four participants gave a well-defined response of the meaning of individualisation by stating that individualisation distinguishes between two things or persons. The participants with the best qualifications offered the following explanation:

Is whereby two things can be distinguished. Signatures can be distinguished. The client comes to Assupol with a policy and then we would then take a specimen signature from the client and the signature on the application form and compare the two to distinguish if this [sic] things was signed by the client.

Individualisation that is where now you limit certain thing from being general and you go now direct to a particular instance or particular person that is individualisation, you are dealing with that person directly or individual.

The rest could not provide a logical explanation. This indicated that they lack knowledge and training on this concept and relevant recommendation in this regard is made in chapter 4.

One participant in his explanation referred to the uniqueness or the unique conditions of a person and referred as an example to fingerprints and handwriting. His answer was:

Individualisation in my knowledge is that a person is unique with regard to certain or unique conditions ... every person has a unique fingerprint or every person has a unique handwriting. You can also regard it as individualisation with regard to specific insurance policies. Not one insurance policy is the same as the other.

From literature and this empirical evidence, the researcher identified uniqueness to be an important aspect of individualisation.

- **Uniqueness**

Nickell and Fischer (2017:3) and Ogle (2004:9) state that individualisation refers to the uniqueness of objective evidence. Doyle (2003:2), Fisher (2004:5), Horswell (2004:6), state that things are unique when they can be distinguished from all other things, even amongst members of the same class; through individualisation it can be determined that an item of evidence comes from a unique source. Brown and Davenport (2012:13), Fish et al. (2014:17), and Saferstein (2011:62) agree with the different authors above and further state that physical evidence is said to have individual characteristics when it can be associated with a unique or common source.

According to Ogle (2004:9), uniqueness is made possible by the fact that no two things in nature are exactly the same. Individualisation means that an item of evidence comes from a unique source and can be shown to be directly associated with a specific individual source (Ogle, 2004:9 and Lochner et al., in press). Gardner (2005:24) and Swanson et al. (2003:68), state that individualisation adds significant value to the concept of identification, since one can individualise a person or object and can therefore identify the origin or donor of the objective evidence found. In order to individualise a person or object from others with the same characteristics and also find its origin, a detailed examination needs to be done. This means that one does not only identify an object as such, but that one compares it with other

samples of known origin with a view to determining individuality or origin. Ogle, (2004:9). Brandl (2014:139) and Fish et al. (2014:7), is of the viewpoint that handwriting is one of the items of physical evidence that can be individualised and associated with a single author or origin.

The individualisation process goes through different stages of identification and comparison before the individualisation of a person or object is established (Fish, et al., 2014:17; Marais, 1992:22; Ogle, 2004:9 and Van Graan and Budhram, 2015:64).

- **Comparison**

Van Der Westhuizen (1996:6) states that a process of individualisation takes place to determine individuality. It normally consists of identification and comparison which have a twofold aim, namely to individualise positively the various objects in dispute and conclusively determine the criminal involvement of the object or person providing the standard of comparison. Marais (1992:22) states that the process of individualisation starts at the crime scene and ends in the court, when objective evidence regarding the identity of a person or object is heard.

Marais (1992:20-22), Marais and Van Rooyen (1990:20), Nickell and Fischer (2017:167) and Van Rooyen (2012:21) explain the concept of individualisation as a process that takes place through comparison of a disputed sample with another sample from the same origin. Doyle (2003:2) and Lee and Harris (2000:12) explain that individualisation means that a conclusion is reached by the expert after comparison and proof that all characteristics features coincide, and a conclusion that a sufficient correlation between individual characteristics is found.

With regard to handwriting, James and Nordby (2003:169) are of the opinion that the best example of a comparison is the individualisation of handwriting or signatures. In handwriting, for example, an expert can, by means of comparison, individualise a sample of handwriting as being that of a specific person, on the basis of the unique features of that specific person's handwriting.

Ellen, Day and Davies (2018:5) mention that in the handwriting comparison, proper account must be taken of complexities such as the variations found in the writing of

one person that at first seem to indicate another writer or conversely, the possibility of accidental coincidence of a number of similarities in the writing of two people. In addition, attempts at deliberate copying or simulating of a person's writing or style and the wish to disguise one's writing to deceive or deflect suspicion are added factors in the comparison of documents. If these factors are not taken into account during analysis and comparison of handwriting, false attributions can be made.

In response to an open-ended question about what methods or techniques can be used to individualise a suspect, the following answers were offered: facial recognition, fingerprint identification, DNA and voice recognition. All the participants mentioned that they would use handwriting. This can be attributed to their experience as fraud investigators. Handwriting is discussed in the next chapter.

2.9 SUMMARY

Criminal investigation is a process revolving around the search for evidence with the aim to reconstruct circumstances of an illegal act that occurred in the past. It is an organised process to determine the truth about the crime that is being investigated. Evidence is found on a crime scene and in the instance of a fraudulent insurance claim evidence is found on the claim form. In the investigation of crime, the protection of a crime scene is central to the success of the investigation. The proper collection of evidence is important and, if evidence is contaminated or the investigator cannot explain and prove that the process of continuity was maintained, the investigation is doomed to failure.

The investigation of crime has clear objectives. Collection of evidence and the identification of a suspect are two of the objectives of crime investigation. Evidence is collected with the aim to individualise the perpetrator. In the individualisation process evidence is compared to other evidence or samples to determine the uniqueness of the evidence. When uniqueness is determined and evidence is linked to a specific person, the suspect has been individualised. In the next chapter, handwriting as an individualising technique is examined.

3. CHAPTER THREE: HANDWRITING AS INDIVIDUALISATION TECHNIQUE IN FRAUDULENT INSURANCE CLAIMS

3.1 INTRODUCTION

The purpose of crime investigation stays the same no matter what crime is investigated. It has to determine whether crime has been committed or not and to collect evidence that will lead to the individualisation and arrest of the person who committed the crime.

Hopwood, Leiner and Young (2012:195) state that fraud investigation, like crime investigation, involves systematically gathering and reviewing evidence for the purpose of documenting the presence or absence of fraud. They further mention that fraud investigation involves a series of four steps, namely the engagement process, the evidence collection process, the reporting process and the recovery process.

In this chapter, the researcher evaluates handwriting as an individualisation technique used to identify the perpetrator. The discussion in this chapter is based on fraud (insurance fraud) and its elements, the collecting of documentary evidence, the prevention of contamination of the crime scene as well as to documentary evidence and handwriting characteristics. This chapter is concluded by an examination of handwriting individualisation and a complete explanation of how to obtain a handwriting specimen for comparison purposes.

3.2 FRAUD

Silverstone, Sheez, Pedneault and Rudewicz (2012:17) state that fraud is an activity that takes place in a social setting and it has severe consequences for the economy, corporations and individuals. Albrecht, Albrecht, Albrecht, and Zimbelman (2016:665), Coenen (2008:7), Hctor (2013:110), Joubert (2016:166), Pasco (2013:26), Smuts (2013:263), Snyman (2014:523) and Van Rooyen (2012:130) define fraud as unlawful and intentional making of a misrepresentation, with fraudulent intent, which causes actual prejudice, or which is potentially prejudicial to another.

Gottschalk (2010:5), Ross (2016:8) and Van Rooyen (2012:128) concentrate in their discussion of fraud on the distorting of the truth. They argue that fraud is an intentional perversion of truth for the purpose of inducing another in reliance upon it to part with some valuable thing belonging to him or to surrender a legal right. In the next section the elements of fraud and how they apply to insurance claim fraud will be examined.

3.2.1 Elements of fraud

In analysing the discussion of fraud by Albrecht et al. (2016:665), Hoor (2013:110), Joubert (2016:166), Pasco (2013:26), Smuts (2013:263) and Van Rooyen (2012:130), it was found that the elements of fraud mentioned are unlawfulness, intention, misrepresentation, prejudice or potential prejudice to another person.

- **Misrepresentation**

Pasco (2013:26), Ross (2016:6) and Van Rooyen (2012:131) state that misrepresentation simply means to state as a fact that which is false or untrue. Wells (2008:9) asserts that misrepresentation is the perversion or distortion of truth. Joubert (2016:166) reasons that the essence of fraud is that the perpetrator makes a misrepresentation with a fraudulent intent, which causes actual prejudice, or which is potentially prejudicial to the prejudiced party. From an insurance viewpoint, Whitacker (2018:53) mentions that the elements of misrepresentation in insurance claims can be proven if the insurer establishes that claims submitted were false, and that such false claims were wilfully made. Birds (2016:118) mentions that a proposer (a person involved in an insurance contract) is guilty of fraudulent misrepresentations if she or he knowingly makes statements that are false without belief in their truth or recklessly neglects to ascertain whether they are true or false.

Van der Schijf (2010:70) explains insurance fraud as intentional concealment or misrepresentation with the objective being to force an insurer to provide benefits such as paying a claim which otherwise would not be paid. According to Merkin (2013) a fraudulent claim exists when the insured makes a claim, knowing that he has suffered no loss, or only a lesser loss than that which he claims. They further argue that a fraudulent device is used if the insured believes he has suffered the loss claimed but seeks to improve or enlarge the facts surrounding the claim, by

some lie. They further define a fraudulent claim as a claim made a claimant or anyone acting on his behalf knowing it to be false or fraudulent in amount or any other respect. Joubert (2016:166), Snyman (2014:524) and Van Rooyen (2012:131) state that misrepresentation can be made in various ways, namely orally or in writing and expressed or implied.

- **Oral or in writing**

Brown (2001:168), Burchell (2013:724) and Van Rooyen (2007:294) consider writing misrepresentation to occur when alterations are made to a document. From experience the researcher is aware that documents like cheques, wills, insurance policies, birth certificates, identity document and death certificates are the ones which are altered during fraudulent insurance claims. When a document is altered, the suspect adds words or sentences to it by writing false information on the document.

Brown (2001:168) and Van Rooyen (2007:294) further consider oral misrepresentation to occur when inappropriate words are used in order to deceive the other person. Although the misrepresentation will generally take the form of spoken or written words, conduct other than writing or speech may also sometimes be sufficient, for example the nodding of the head.

- **Express or implied**

Snyman (2014:524) states that misrepresentation may be either expressed or implicit, e.g. if X unlawfully comes into possession of Y's credit card and uses the card to buy himself articles in a shop by falsely writing Y's signature on the receipt, fraud is committed.

- **Unlawful**

Joubert (2016:46) and Snyman (2014:530) describes unlawful as a violation of a statutory law that prescribes or prohibits an act or unjustified conduct where there is no legal justification for the particular act. Van Rooyen (2012:138) further states that unlawful consists of the making of a misrepresentation with intent to cause prejudice which is punishable by the state. In his discussion, Burchell (2005:226)

argues that unlawfulness is excluded if there are grounds of any justification as a defence.

- **Intention**

For Ross (2016:7) and Van Rooyen (2012:135) perpetrators have intention when they know or foresee that their representation is false, have no honest belief in the truth thereof or are indifferent as to whether it is true or not. Van Rooyen (2012:138) is of the opinion that the person who presents the false information must have the intention to both deceive and defraud.

- **Prejudice**

Burchell (2005:841) and Van Rooyen (2012:139) is of the opinion that real or potential prejudice is a requirement in order for fraud to be considered. They state that prejudice must be as a result of a perpetrator's actions or conduct. Lying without any harm to any one is not punishable by state.

Whitacker (2018:1) states that insurance fraud is the most practiced fraud in the world. The next section starts with an explanation of insurance to create a nexus between insurance and insurance fraud.

3.3 INSURANCE

Rejda and McNamara (2014:38) state that there is no single definition of insurance. Insurance is defined by Baltensperger, Boumberger, Luppá, Keller and Wicki (2008:1) as an agreement providing individual protection against the risk of losses resulting from various dangers or hazards. Franzetti (2010:40) sees insurance as the pooling of fortuitous losses by transfer of such risks to insurers, who agree to indemnify insurers for such losses, to provide other pecuniary benefits on their occurrence, or to render services connected with the risk.

Whitacker (2018:6) specifies that in order for a life insurer to pay out the money to the insured (for loss of life), a death certificate is required. According to him it is not difficult to obtain a false death certificate. He argues that it is where a fraudulent death claim starts, for example the person whom they claim dead might be alive and missing or the person might be dead, and the death is past posted. From experience the researcher knows and has had the experienced that criminals kill or

arrange the killing of a person or his death be made to look like an accident or random killing to collect insurance pay out.

3.3.1 Insurance fraud

Ferraro (2012:432) describes insurance fraud as any deliberate deception or misrepresentation perpetrated against an insurance company or agent for the purpose of unwarranted or improper financial gain that could occur during the process of buying, using, selling and underwriting insurance.

Gottschalk (2010:189) and Whitacker (2018:1) in their explanation of insurance fraud refer to the terms of the insurance agreement. They hold the viewpoint that insurance fraud exists when individuals attempt to get profit by failing to comply with the terms of the insurance agreement. The above-mentioned author strongly believes that insurance fraud threatens the financial strength of insurers and threatens the survival of insurance institutions. Orthman and Hess (2013:443) and Whitacker (2018:2) argue that the most prevalent type of insurance fraud involves premium diversion, agent and broker fraud and settlement cheques which are briefly discussed in the next section.

3.3.1.1 Premium fraud

Orthman and Hess (2013:443) and Whitacker (2018:2) in their explanation of this type of fraud mention that the agent collects the premium but does not remit the cheques or premium collected to the insurance company. The authors further state that this type of fraud is administrated by unauthorised, unregistered and unlicensed agents and also occurs when premiums are collected for non-existent policies.

3.3.1.2 Agent and broker fraud

Company employees who without the knowledge of an insured or contract holder request a loan or a dividend and deposit it into either their bank account or a fictitious account to minimise their chances of being detected, commit broker fraud (Whitacker, 2018:2). One of the methods used is to either change their address or create a fictitious address.

3.3.1.3 Settlement cheque fraud

Whitacker (2018:2) states that a company employee can misdirect settlement cheques or funds, such as for a matured endowment settlement, to the branch office, the employee's home or a fictional address. The employee can easily perpetrate cheque defalcation by changing the address of record prior to issue date of the settlement cheques, thus misdirecting the cheque.

An orphan contract holder is a policyholder or contract holder who has not been assigned to a serving agent of the insurance company or the whereabouts of the insured individual is unknown. The orphan contract holder might be transferred to the employee's agency periodically affording the opportunity to improperly request the insurance of a settlement cheque. The servicing agent attempts to locate this family group and could influence them to purchase additional insurance. From the above discussion it is clear that documents stand central to insurance fraud.

3.4 DOCUMENT

Marais (1992:181) and Van Rooyen (2007:290) state that documents are very much part of a person's every day existence from the issuing of a birth certificate until his death certificate is written out. They are of the opinion that, despite the digital age we live in, dealing with documents is unavoidable. Ellen et al. (2018:3), James et al. (2014:451), and Joubert (2016:381-382) refer to a document as anything that contains the written or pictorial proof of an agreement between one individual and another. Hopwood et al. (2012:249), further mention that documents include records in electronic format and point out that documents are the most often used type of evidence in investigation of any fraud.

Nemeth (2011:138) and Wilkinson, Sacks-Davis, Thom and Zobel (1998:4) mention that documents record a message from people to people and have the unique capacity to speak for themselves. Duyshart (1997:8) states that despite the enormous range of documents types, they all have one important feature in common, they convey information. Harralson and Miller (2018:1) stress the point that the relevancy of documents in civil or criminal litigation is largely dependent on their authorship or origin.

Fourie (1996:310), James and Nordby (2003:360), Joubert (2016:381-382), Manamela and Mokwena (2015:123), Van Graan and Budhram (2015:52) and Van Rooyen (2012:176) further provide an explanation of what is regarded as a document: printed matter on a paper or displayed on a computer screen, photocopies, photographs, letters, words, pictures, sound, symbols or anything which contains a visible or invisible mark or sign whereby a message is transmitted and which are destined to prove a fact in any civil or criminal action.

The participants were asked to explain from a fraudulent insurance claim investigation viewpoint what their understanding of a document is. The following were regarded by the participants as a document:

- The claim form would be the document.
- Anything that is written ... proof as a document between individual or anything.
- A document can be anything that contains the written proof or something between one individual and another and is according to me physical evidence.
- A document is any written paper which was used in a fraudulent claim such as any black and white evidence that is collected in a fraudulent claim.

The participants gave the following examples of documents: bank statements, pictures, paper work that contains information, doctors' reports, and records of information that cannot be lost or any paper. One participant defined document as record of information that is written on a paper so that it could not get lost. From the answers given it can be assumed that the participants were aware of the evidential value of the documents.

An additional question was posted to participants to list evidence that can be found and be collected from a document that was used in a fraudulent insurance claim. According to the participants DNA, fingerprints, false photos, false signatures, false identity documents or policy numbers, false addresses, and false cellular phone numbers could be found on a document.

3.4.1 Documentary evidence

According to Hopwood et al. (2012:330), Joubert (2016:171) and Lochner and Zinn (2015:39), documentary evidence cannot stand on its own and must always be confirmed to be true. Fish et al. (2011:276), Joubert (2016:171) and Lochner and

Zinn (2015:39) state that documentary evidence will include reports, cheques, log files, receipts, testimonials, promissory notes, mortgage bonds and certificates of education. The above-mentioned authors are of the opinion that documentary evidence is evidence in written or typed form. An example of documentary evidence is the document which is used for insurance claims on which handwriting, the signature or other information of a person appears and is being disputed.

Hopwood et al. (2012:226), Lochner et al. (in press), Van der Watt (2015:194) and Van Rooyen (2012:173) state that documentary evidence is the mainstay of fraud investigations and probably one of the most frequently collected pieces of evidence during an investigation. Hopwood et al. (2012:330), argue that documentary evidence normally includes recording information, such as an audio or video recording or a transcript of a telephone conversation. He further states that, unlike physical evidence, documentary evidence does not speak for itself but requires support from an expert witness.

To the question what type of evidence the participants find from a document during investigation of insurance fraud, the majority of participants referred to the information that was found on the document, such as dates, identity numbers, addresses and cell phone numbers. The following answer of one participant reflects the answers of participants:

Because I am dealing with fraud documents, I will look for addresses, contact details, where was the bank statement issued from. At least it will put me closer and I can see where my suspect is based.

Van Rooyen (2012:173) urges investigators to follow correct rules and procedures of collecting and handling documentary evidence. Van Rooyen (2012:173) points out that investigators should always include relevant documents and exclude irrelevant documents to the case. Fourie (1996:311-313) argues that the investigation of a document has the possibility of the identification of the suspect which could lead to the possible solving of the crime.

Huber and Hendrick (1999:3) declare that the relevancy of documents in civil and criminal litigation is largely dependent on their authorship or origin. Van Rooyen (2007:174) postulates that documents contain a wide variety of identifiable

characteristics and evidence that can be used to corroborate other evidence and associate a suspect with the crime.

3.4.2 Document characteristics

Fourie (1996:311-313) and Manamela and Mokwena (2015:123) explain that the parts or physical features of which a document consists and which are disputed contain physical features and are very important during investigation of insurance fraud cases. Disputed documents can assist an investigator to individualise handwriting, mechanical impressions, papers, ink used, alterations, and writing instrument. For this dissertation, the researcher will concentrate on the handwriting of the perpetrator (see paragraph 3.7).

3.5 DISPUTED DOCUMENTS

Baxter (2015:419), Fourie (1996:309), Girard (2015:166), Hopwood et al. (2012:265-266), and Zinn and Dintwe (2015:441) define a disputed document as a document being disputed in a court. Fish et al. (2011:276), Girard (2015:166-168) and James et al. (2014:451), also refer to a disputed document as a document whose origin or authenticity is questioned, suspected, unknown or uncertain. From a crime investigation viewpoint, Fourie (1996:309), Girard (2015:166), Hopwood et al. (2012:266), Manamela and Mokwena (2015:123) and Swanson et al. (2003:109-110), argue that a disputed document is any type of document that requires detailed scientific examination. The researcher will for this reason suggest that any document that is found at the scene of crime and that falls into the category of objective evidence must be correctly handled, collected and preserved.

3.6 HANDLING OF DISPUTED DOCUMENTARY EVIDENCE

General rules regarding the correct collection and handling of disputed documentary evidence is provided to investigators by Baxter (2015:419), Fish et al. (2011:278), Fourie (1996:321), Girard (2015:166), Hopwood et al. (2012:226), Manamela and Mokwena (2015:194), Ogle (2012:294), Silverstone et al. (2012:194), Van der Watt (2015:194-195) and Van Rooyen (2012:159, 173). They assert that investigators' task is to prevent that disputed documents be destroyed or damaged. Girard (2015:166) and Van der Watt (2015:194-195) advise investigators to prevent

touching and handling of disputed and original documents and to minimize the handling if at all necessary.

Fish et al. (2011:278), suggest that photos should first be taken before any collection of disputed documents take place. They point out that it is the duty of the investigator to ensure that the chain of custody is maintained. Lochner and Zinn (2015:43) state that even though there are no hard and fast rules on how to collect evidence there are rules guiding an investigator on how different types of evidence should be collected. They propose that investigators must learn and study the different methods to be used.

This paragraph should be read with paragraph 2.6.2 in mind - contamination of evidence. Brandl (2008:150), Marais (1992:11), Lochner and Zinn (2015:41-44), Lochner et al. (in press), Ogle (2004:150), Orthmann and Hess (2013:128), Saferstein (2011:44) and Van Rooyen (2007:109) emphasise the importance of the correct methods to handle evidence and to prevent contamination of evidence. Marais (1992:194) and Van Rooyen (2007:303) reason that in order to keep the evidential value of a disputed document intact, it must be preserved unimpaired, in its original form, for example, it must not be folded and it must not be stapled.

Marais (1992:195) guidance to investigators is that when an investigator marks a disputed document, all necessary precaution measures should be taken to ensure that documentary evidence is not impaired. Not to compromise documentary evidence, Marais (1992:195) suggests that investigators should not mark, damage, ruin or tear evidence in any manner. The author further reasons that a disputed document must not be handled with dirty hands or be put in a dirty container or on a dirty table top during the collection, packing or preservation of documentary evidence.

Baxter (2015:423), Fourie (1996:321) and Ogle (2012:299) agree in their discussion on the handling of disputed documents. They insist that when a document is seized, it must immediately be protected and be kept safely, be protected from moisture and all the necessary steps should be in place to prevent documentary evidence being mixed with other documentary evidence. Girard (2015:166), Marais (1992:194), Ogle (2012:298) and Van Rooyen (2012:159) state that, in order to

prevent contamination, each questioned document should be placed in a separate envelope for storage and transportation that is large enough to hold the document without folding it.

Girard (2015:166) and Ogle (2012:296) warn investigators who collect questioned documents not to handle questioned documents with a bare hand, and that protective gloves should be used. This is done to prevent the transfer of DNA and damaging fingerprints onto the document. They further state that all information concerning documentary evidence should be written on the chain of custody label (for chain of custody see paragraph 2.6.1.1) before the document be inserted into an envelope, so as to prevent any writing indentations being transferred onto the document. According to Baxter (2015:423) each questioned document should be placed in an envelope that is large enough to hold the document without folding for storage and transportation.

According to Fish et al. (2011:278), Lochner and Zinn (2015:44) and Ogle (2012:296) disputed documentary evidence that is discovered should be marked by an investigator in such a way that its evidential value is not destroyed. According to Ogle (2012:296) and Van Rooyen (2012:173-174), all documentary evidence received should be uniquely marked so that it can be identified later. Lochner and Zinn (2015:118) and Van Rooyen (2012:162) refer to the reasons why evidence that is discovered should be marked. Their rationale for marking and labelling evidence is to identify the nature and source of the item, and to establish the chain of custody. The above-mentioned authors state that the investigator should ensure that the following information is recorded on the label:

- The nature of the contents;
- Source of evidence;
- Date and time evidence was sealed;
- Signature and printed surname of collector; and
- Sequential number, the unique identifying marks and case number.

Van Rooyen (2012:162) further states that to protect documentary evidence the investigator needs to use a manila envelope slightly larger than the document. This

envelope can be marked and the evidence carefully inserted and then sealed by the submitter.

To maintain the chain of evidence and prevent contamination of documentary evidence it is argued by Lochner en Zinn (2015:43), Lochner et al. (in press), and Van Rooyen (2012:173) that proper records should be kept. In the record the items must be stated, date when they are received, the person from whom they were received, and place where they will be safely kept.

Lochner and Zinn (2015:43-44) and Van Rooyen (2012:174) caution that all physical evidence, once properly collected, must be appropriately packed and labelled to preserve it until required or sent for analysis.

The participants were asked what precautionary measures they used to protect documentary evidence. Their answers were consistent with what was documented in literature. The majority of participants put emphasis on the chain of evidence as a preventative measure. All the participants referred to the concept of contamination and the following quotations from one participant can be seen to represent the overarching responses:

You will record it or you will mark it and then you save this document from being contaminated by listing it and putting it in a safe ... not to be mixed with other because the document is contaminated if it is mixed with other documents. At the end of the day you don't know which document come from which angle so you needed to know that this document come from a specific person ... then you label it as such.

3.7 EXAMINATION OF DISPUTED DOCUMENTS

According to Van Rooyen (2012:150), the authenticity of documents in fraud cases is usually disputed. According to Harralson and Miller (2018:6), Huber and Hendrick (1999:8) and Lewis (2014:38), the examination of disputed document is a discipline that seeks to determine the history of a document by technical or scientific processes. Lewis (2014:38) and Hopwood et al. (2012:329), see the examination of disputed documents as the comparison of the deputed document with other kinds of evidentiary material.

Becker and Dutelle (2013:11-12), Lewis (2014:38), Orthmann and Hess (2013:8), Van Graan and Budhram (2015:52) and Van Rooyen (2012:172) suggest that

disputed documents should be examined by experts with the aim to determine the origin of the document. It should be examined to establish genuineness, to expose forgery or to reveal alterations, to pinpoint additions or deletions on the document.

Suggestions are made by Hopwood et al. (2012:266), and Van Rooyen (2012:174) regarding the investigation of disputed documents to determine authenticity. They suggest that the aim of the investigation must be to determine who to exclude or include as the writer of a disputed document. They recommend that a disputed document needs to be investigated for the following in order to see whether it is or not:

- Presence of obvious erasures, obliterations of alterations.
- Abnormal positioning of a signature with respect to the body of the writing.
- Wavering, uncertainty or distortion in a signature.
- Parching, or overwriting, particularly if rather carefully performed.
- Use of different ink, different appearance of the lines, crowding, or other unusual appearances.
- Noticeable differences in the writing as compared with genuine writing, or an appearance of genuine letter forms but poor execution of the lines themselves.

Fourie (1996:309-323) states that the investigation of disputed documents comprises two main steps which support and complement each other. He states that the first step entails determining the disputed nature of the document and the second step is individualising the document. Van Rooyen (2007:296) mentions that to determine the disputed nature of the document the investigator can identify following, which are usual points to be disputed in a document:

- The handwriting.
- The typewriting.
- The origin of documents.
- The age of document.
- The authorship.
- The authenticity.
- Additions, alterations and omissions.

Van Rooyen (2007:292) and Van Rooyen (2012:177) state that a variety of investigations are done to determine the authenticity, origin, identity or disputability of a document. Usually the author of a document and the origin of the document are disputed and need to be verified.

3.8 HANDWRITING

According to Lewis (2014:48), handwriting is a conscious act. He further argues that the formulation of each letter and words takes place virtually automatically. Most of the writer's conscious thoughts are channelled rather to the content of what is being written than to the process itself. Handwriting is an acquired skill and clearly one that is a completely perceptual-motor task, also referred to as a neuromuscular task (Huber & Hendrick, 1999:11). Lewis (2014:48) mentions that handwriting is unconscious patterns which are habitually formed and are part of the individual's habits.

The majority of the participants use the handwriting of suspected persons in the investigation of fraudulent insurance claims. They agree that the handwriting of each person is unique and distinctive. In response to a question of what handwriting is, one participant offered the following explanation: "Handwriting is just an art of writing down what is translated from the mind." From the responses the researcher will argue that respondents are familiar with the concept. .

According to Girard (2015:168), there are three basic types of handwriting which are universally recognised, namely block capitals, cursive and script. The normal handwriting of most people is a combination of cursive and script writing. According to Girard (2015:166), Koppenhaver (2007:7), Manamela and Mokwena (2015:124) and Nickell and Fischer (2017:170), handwriting is produced when a person uses a pen to write on paper and they point out that there are no two individuals who have the same handwriting or who can write exactly alike. They further state that differences can be observed in the combination of the characteristics in the handwriting of each individual. From this statement the researcher will argue that a person can be individualised by his handwriting.

When a child develops skills in cursive handwriting, certain aspects of writing such as shape and proportion, become more individualised (Girard, 2015:168). These distinctive features, which develop during adolescence, are known as individual characteristics. Nickell and Fischer (2017:168) state that individual characteristics or peculiar features that develop are distinctive. The prevalence of individual characteristics is the basis of individualisation of handwriting.

3.8.1 Individualisation of handwriting

The ancient Jews took the first step towards the development of the science of handwriting comparison by recognising the individuality of each writer (James et al., 2014:451 and Nickell & Fischer, 2017:167-168). The individuality of handwriting remains an accepted basic principle in document examination, according to Lewis (2014:47) and Ogle (2012:294). It is the viewpoint of Girard (2015:167) and Ogle (2012:294) that each person's handwriting is unique. Girard (2015:170) in his examination of handwriting reasons that most adults' handwriting changes little from year to year. Nickell and Fischer (2017:3) agree with Lewis (2014:24), Manamela and Mokwena (2015:124), Ogle (2012:294) and Lewis (2014:48) that handwriting is unique and therefore it can be individualised. It is clear that when writing is individualised through handwriting characteristics it can be determined who the writer of a questioned document is (Fourie, 1996:312; James et al., 2014:457; Lewis, 2014:47 and Van Rooyen, 2007:270).

To individualise handwriting Lewis (2014:48) argues that all handwriting characteristics should be taken into account. Fish et al. (2011:288), and James et al. (2014:458), list the following as handwriting characteristic: design of the letters, the stroke movements made by the writer, the rhythm of the writing, the movement of the fingers, hand, forearm and the arm as whole. Lewis (2014:53-57), who is a qualified and expert handwriting analyst, is of the opinion that the writing instruments, tremors, literacy pen position, pressure on the pen, writing surfaces, spacing between letters, words, lines, the slope of the characteristics and the alignment of the words can also be used to individualise handwriting. The initial, connecting and terminal strokes, lifting the pen and punctuation is also characteristics that should be taken into account when handwriting is analysed to determine individualisation (Lewis, 2014:53).

Fourie (1996:312), Lewis (2014:47) and Van Rooyen (2007:270) elaborate on the individualisation value of handwriting. They reason that handwriting individualisation can provide information about the age of the writing on the disputed document, the variety of instruments used to complete the disputed document, whether the instrument involved was used to complete several documents and whether the instrument involved was only used to complete the disputed document. The above-mentioned authors remind the readers that the study of the handwriting on a disputed document can determine whether the writing is genuine, disguised or whether hands were switched, and whether the writing was simulated or traced. The purpose is, according to Ogle (2012:294), to individualise the handwriting.

Other authors such as Bell (2004:180), James and Nordby (2003:169), Marais (1992:18); Marais and Van Rooyen (1990:20), McCartney (2006:1), Nickell and Fischer (2017:167) and Van Rooyen (2012:21) define the concept handwriting individualisation as a process that takes place through comparison of disputed sample and with another sample from the same origin.

James et al. (2014:455), and Manamenla and Mokwena (2015:128) mention that handwriting examination for individualisation uses the scientific principles of observation and deduction, applies appropriate tests and compares the disputed document to known reference specimens. They further state that, when handwriting examination is conducted with the purpose to individualise the writer, the known reference specimens must be similar to the disputed document, for example, when a disputed signature on an insurance claim form needs to be compared, it must be compared to the claimant's signature on his personal documents which he signed before the incident.

From practical experience as an investigator the researcher knows that insurance claim fraud is mostly committed by either forging handwriting when completing the claim forms, or forging signatures on supporting documents of another person in order to obtain benefits that are not due to him.

The participants were asked if they used handwriting as individualisation technique. The majority of participants responded that they do. One participant's comment was: "It is the most commonly used ... this handwriting as individualisation." An

additional question was asked in order for participants to explain for what purpose they used handwriting as individualisation technique. All participants' responses were that they used it when a client or claimant denied that he had completed the claim form or had signed the claim form. It was done to compare the handwriting or signatures. The participants were unanimous that handwriting can be used to individualise a suspect and to illustrate their viewpoint one participant's response was:

... you know with insurance claims there's someone who fills in the forms ... there's someone who fills in the auditing documents when taking out a policy. To prove that the suspect is one who have completed the claims you need to use handwriting as part of individualisation.

From experience the researcher knows that to individualise handwriting on disputed documents handwriting specimens should be taken.

3.8.2 Handwriting specimen

Girard (2015:170), James et al. (2014:455), and Ogle (2012:297) mention that handwriting specimen fall into two categories, namely, requested specimens and unrequested specimens. These authors explain requested specimens as documents produced upon request and unrequested specimens as documents created with no idea they would later be used for a comparison.

3.8.2.1 Obtaining handwriting specimen for comparison purposes

Girard (2015:170), Marais (1992:188-189) and Van Rooyen (2012:183-186) provide procedures to be followed when obtaining handwriting samples - being that authentic and adequate samples be obtained. For samples to be authentic, Fish et al. (2011:285-287), propose the following guidelines on their procurement:

- The suspect must be made comfortable.
- The suspect must be informed of his rights and that the sample writing will be voluntary and it may be used against him.
- The surface on which the person writes must not be coarse or uneven.
- The disputed writing should not be shown to the accused.
- Requested samples should be written on separate pages.

There are no fixed rules as to the number of samples that are required, but a minimum of 15 times for short disputed handwriting is recommended. For lengthy disputed handwriting, a repeat of three times is recommended. If only the signature is disputed, it will be sufficient to obtain a minimum of between 12 and 15 signature standards from everyone involved (Van Rooyen, 2012:186). Girard (2018:186) and Nickell and Fisher (2017:170) explain that any known specimen used for handwriting comparison is called a standard, previously known as exemplar, and may be used to designate standard writing that is offered in evidence or obtained on request for comparison purposes. Similar writing instruments should be used and similar conditions should always be taken into account.

Girard (2015:167), Marais (1992:188) and Van Rooyen (2012:183-184) state that a large number of samples need to be obtained to enable the expert to determine normal variations in the author's handwriting and to eliminate them from specific differences between the comparison standard and the disputed document.

Girard (2018:186) mentions that an exemplar that was created within two years of the questioned document is usually adequate for comparison purposes. He further states that as the difference in age between the questioned document and the comparison becomes greater, there is a greater chance that the comparison document will not be a representative exemplar. Girard (2018:186) and Nickell and Fischer (2017:170) suggest that investigators take into consideration both the age of the disputed handwriting in relation to the time when it was possibly written and the age and the health of the author.

Girard (2018:186) states that in handwriting comparison it is essential to distinguish between class and individual characteristics. Only the latter are used to compare one writing sample with another in the attempt to discover common authorship.

- **Practical application**

Manamela and Mokwena (2015:126), Marais (1992:188) and Van Rooyen (2012:184-186) stress that it is important to obtain quality specimens which are similar to the writing on the disputed document, for example, the same type of fountain pen; ballpoint pen or felt-tipped pen, (if pencil is used, it must be sharpened

in the same way), the same writing surface and the same type of paper regarding texture and thickness as the one used when writing questioned document.

The author needs to sign and date the comparison standards. The author must submit a statement that he supplied the comparison standards of her or his own will. The investigator also has to sign and date the comparison standards. He must also submit a statement that he obtained the comparison standards. If the witness was present, he must also sign and date the comparison standard and submit the statement that he witnessed the obtaining of comparison standards.

Manamela and Mokwena (2015:126), Van Rooyen (2007:298) and Van Rooyen (2012:185-186) provide investigative hints to an investigator. They recommend that the investigator hides disputed documents so that the suspect does not see them when asked to produce a reference specimen. They also suggest to ask the suspects to write a few sentences before they are requested to produce the reference specimen. They reason that it would relax the muscles used to write. It is important for Manamela and Mokwena (2015:126) that the suspect is informed that the reference specimen will be used in an investigation. Finally, it is suggested that the suspect is given different types of sheets of paper to write on and remove the one on which he has already written to prevent him from referring to it.

The participants were asked whether during their career they had collected handwriting specimens. All participants' responses were in the positive, but they could not provide details on the procedure that they used to collect handwriting specimen. According to the researcher, this should be further investigated through another study.

3.8.2.2 Handling of comparison standard in respect of handwriting

Nickell and Fischer (2017:35) indicate that the integrity of a sample must be maintained by not putting together or allowing two evidence samples to make contact with any other sample or contaminating material. According to Fish et al. (2011:279), when dealing with a disputed document, especially specimen samples, all specimens should be clearly labelled with name of institution, the reference number, description of exhibit and the exhibit should be marked with an alphabetic number. Exhibits must be packaged separately and be marked with different

numbers. Investigators must avoid making a mark directly on specimen to avoid contamination of evidence. To conclude, Fish et al. (2011:2790), mention that the reference specimen should be put in an envelope and then be sealed in an evidence sealing bag which contains a unique number. This is done to maintain the chain of evidence and to prevent contamination to the specimen.

3.9 SUMMARY

Documents contain important information. When questions arise about the origin and authenticity of the document in cases where the content had been altered, it is referred to as a disputed document. This kind of misrepresentation often occurs in fraudulent insurance claims. The document then becomes evidence in the investigation which follows and the disputed document is examined to determine the origin and authenticity of the author by handwriting analysis.

Handwriting analysis is an important investigating technique that can be used to individualise a perpetrator's handwriting. Handwriting is a conscious act and to prove that a specific person was responsible for handwriting on a fraudulent insurance claim, a specimen is obtained. Specimens are collected by following certain guidelines to prevent contamination and to maintain the chain of evidence.

In the next chapter the findings and relevant recommendations are made to address the findings.

4. CHAPTER 4: FINDINGS AND RECOMMENDATIONS

4.1 INTRODUCTION

The investigation of crime does have objectives, which, if achieved, will lead to the identification, apprehension and arrest of the perpetrator. One of these objectives is to individualise the perpetrator or suspected individual. Handwriting that appears on fraudulent insurance claims can be used to individualise the perpetrator. The use of handwriting as an individualisation technique plays an important role in the investigation of fraudulent insurance claims, as it will enable the investigator to individualise the perpetrator. This research is the result of the need, identified by the researcher; to improve the use of handwriting as an individualisation technique in the investigation of fraudulent insurance claims cases at Assupol Life Insurance.

In an attempt to address the research questions and aim, the researcher gathered information from literature by authors of national and international origin, and built on the experience of investigators who investigate fraudulent insurance claims cases at Assupol Life Insurance, to obtain knowledge from practice.

4.2 FINDINGS

The researcher made primary and secondary findings, based on the formulated research questions to address the aims of this research. Recommendations are made, based on the primary and secondary findings. The most prominent finding of this research was that handwriting can be used to individualise perpetrators of insurance fraud at Assupol Life Insurance.

The researcher divided findings into two parts, namely primary and secondary findings and they are discussed below.

4.1.1 Primary findings

- Investigators at Assupol Life Insurance do use handwriting as an individualisation technique. Empirical evidence shows that they however could not explain the process of obtaining handwriting specimens.
- Individualisation is preceded by a process of identification. It involves the identification, analysis and comparison of objects found at the crime scene with an object of known origin.

- From the literature study it was found that uniqueness of handwriting will determine the individualisation of handwriting. Comparison is used to determine the uniqueness of handwriting.
- The literature and empirical evidence show that a fraudulent insurance claim document can be seen as a crime scene because evidence is found on it.
- Insurance fraud is any deliberate deception or misrepresentation perpetrated against insurance company or agent for the purpose of unwarranted or improper financial gain. The most popular types of insurance fraud are premium diversion, agent and broker fraud and settlement cheques. The majority of participants agree on this with literature sources.
- From literature it was discovered that handwriting is a mindful act which takes place by the automatic formulation of letters and words.

4.1.2 Secondary findings

In this research, the researcher established the following secondary findings from literature sources and empirical evidence:

- From the literature, it was found that criminal investigation is a systematic process of discovery and the collection of objective and subjective evidence with the aim to reconstruct past events.
- To reconstruct past events, crime investigation can be reactive or proactive. Proactive investigation is done before a crime is committed and reactive investigation after the crime has been committed.
- From the literature sources it was established that the crime investigation process is a constructive process that uses deductive and inductive reasoning to determine what happened. With the deductive approach the general appearance of evidence found on the crime scene is used to find a possible explanation for the events. It was found that the inductive approach requires the logical generalisation of events that are analysed against the evidence on hand to reach a conclusion about the incident.
- The empirical and literature information gathered in this study specifies that objective evidence is the most trusted evidence. It is regarded as superior to subjective evidence, which relies on the contribution of the human.

- To identify and individualise the perpetrator is the primary objective of criminal investigation and it relies on objective and subjective evidence to prove the elements of the reported crime. In this study, the empirical evidence supported literature sources.
- Misrepresentation is an element of fraud and it appears in writing on fraudulent insurance claims at Assupol Life Insurance.
- From the analyses of literature sources, it was determined that a document is anything that contains the written or pictorial proof of something and it is communication that conveys information or messages.
- A fraudulent insurance claim is documentary evidence.
- The chain of custody is a process put in place to maintain the integrity of evidence and to prevent contamination of evidence. The chain of custody is documentary proof of who handled evidence at a specific time and where evidence was kept.
- Literatures sources reveal that a disputed document is one whose origin or authenticity is questioned, suspected, unknown or uncertain. In this study the empirical evidence did not support literature sources.
- From the evidence gathered in this research, it was found that there are rules and guidelines that govern the collection of disputed documents. The purpose of these rules and guidelines is to prevent contamination. To prevent contamination of disputed documents:
 - Disputed documents should not be handled with bare hands;
 - Protective gloves should be used;
 - Investigators should avoid writing on top of envelopes while documentary evidence is inside the envelopes;
 - Original documents should be kept in safe place during investigation;
 - Copies of disputed documents should be used during the investigation;
 - Disputed documentary evidence should be placed in an envelope that is large enough to hold the document; and
 - Disputed documents should not be folded or unfolded for storage and transportation. Participants' responses supported literature sources.

4.3 RECOMMENDATIONS

One of the purposes of this research was to develop good practice and to empower those involved in the use of handwriting as an individualisation technique during the investigation of insurance fraud. This can only be achieved if the investigators have adequate knowledge and a proper understanding of handwriting, the methods to collect samples and preventing contamination of disputed documents. Based on empirical evidence of the lack of knowledge and insight regarding certain aspects of crime investigation and the collection of handwriting samples, the following recommendations are made.

Investigators must be sent on courses that will educate them on the procedure to be followed when handwriting samples are taken. They should be made aware that samples should be obtained at the beginning of the investigation of fraudulent insurance claims.

Investigators in the insurance industry have to educate themselves about criminal investigation of insurance fraud and the use of handwriting as individualisation technique. They should be made aware of the individualisation value of handwriting.

It is also recommended that the insurance industries be involved in the empowering of their investigators by providing intensive training, workshops and in-service training. The focus of such training should be on the use of handwriting as an individualisation technique.

Training manuals and pamphlets should be developed at Assupol Life Insurance with the aim to educate their investigators in the investigation of fraudulent insurance claims. Focus should be on the following aspects:

- Prevention of contamination of evidence;
- The important role the chain of evidence plays in the investigation of crime and fraudulent insurance claims;
- How handwriting samples should be taken;
- How documentary evidence should be collected; and
- How to prevent contamination of disputed documentation.

It is recommended that there should be practical and theoretical in-service training for investigators who investigate insurance fraud cases at insurance companies and that this should be done on a continuous basis.

The researcher further recommends that more research be done on the following aspect:

- Why investigators at Assupol could not explain the process they used to collect samples from suspects.

It is also recommended that academic institutions develop short courses on the investigation of insurance fraud, which will focus on the collection of handwriting samples. Lastly the researcher recommends that insurance companies develop a robust policy on in-service training for their fraud investigators.

4.4 CONCLUSION

The researcher was able to address the research questions by utilising the design and methodology of this research, which revealed that handwriting can be used to individualise a suspect. The evidence gathered from the different data sources established what handwriting consists of and how disputed documents can be contaminated. Misrepresentation was identified to be one of the elements of fraud that occurs in fraudulent insurance claims. It was also established how handwriting specimens should be taken.

Apart from the findings, the importance of the chain of custody was emphasised in the research. It is imperative that the investigators in the insurance industry understand the value of handwriting examination and the investigation value thereof. They should also realise and understand that contamination has an enormous influence on the evidential value of disputed documents.

This research revealed that a document was a scene of crime and evidence could be obtained from it. It further revealed that handwriting as individualisation technique could be used in fraudulent insurance claim cases. Handwriting individualisation techniques could individualise evidence and identify perpetrators of this crime.

Allegations of insurance fraud is difficult to prove because of its various dimensions. Individuals in the insurance fraud investigation fraternity need to be familiar with present methods used to commit insurance fraud and the techniques that can be used to individualise perpetrators of insurance fraud.

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6. ANNEXURES

6.1 ANNEXURE A: COPY OF INTERVIEW SCHEDULE

INTERVIEW SCHEDULE

Evaluation of handwriting as individualisation technique in fraudulent insurance claims

Instructions:

Please answer all the questions as honestly as possible. The information collected for this study will be analysed in order to develop an accurate picture for this research project. The purpose of the research is to obtain my Master's Degree in Forensic Investigation at the University of South Africa. Your participation will assist the researcher to make findings and recommendations to determine how handwriting as an individualisation technique can be used in the investigation of fraudulent insurance claims in an insurance industry. You do not need to identify yourself and, similarly, the researcher will uphold anonymity in that there will be no possibility of any participant being identified or linked in any way to the research findings in the final research report.

Declaration by the researcher

You as the respondent will be treated as a human being. The interview will be in the language of your choice. No attempts will be made to mislead you or to supply you with false information. It is my intention to conduct this research honestly, fairly and transparently and I acknowledge that I may have certain limitations to competence and understanding regarding research. However, I will at all times adhere to integrity, transparency and accountability. There are no predetermined risks accompanying this study. You as the participant are merely providing the researcher with knowledge about the subject matter. It is not foreseen that by participating in this research you as the participant will face any specific risks.

The questions formulated in the interview schedule are to provide information to answer the research questions. It is not of a personal nature and should not pose the risk of discomfort. During the interview you may become tired or feel uncomfortable at which point you may request a break or request that the interview be postponed to a later date or terminated if so desired.

I will ensure that the benefits from this research will outweigh any risk and precautions will be taken to minimise and mitigate risks if they occur. I will adhere to the research ethics of Unisa and all other applicable policies on the protection of the identity of the participants and the information that was gathered during the interview. The interview schedule with your information, documents relevant to the interview and the analyses of the information will be code protected and will be stored in a code-protected safe. I am the only person who has access to the safe.

You as the respondent do not have to disclose information you would prefer to remain private. I am the person who will analyse the data and will ensure that all data are treated confidentially and only for the purpose agreed herewith. Your information will be used as empirical data in the research report.

I appreciate your willingness to be interviewed for this research project. You may withdraw from the study at any time. In co-signing this agreement, **Mosuwa Abel Lelosa** (the researcher) undertakes to:

- Maintain confidentiality, anonymity, and privacy regarding the identity of the respondent and information rendered by the respondent.
- Use code names to protect the anonymity and privacy regarding the identity of the respondent and all the information obtained during the interviews will be kept confidential at all times.

The research findings will be made available to you should you request them. After the research has been done, the research report will be available at Unisa library. (electronic and hard copy).

Participant's involvement in the study

Your involvement in this study is voluntary. You will in no way be penalised if you do not participate or withdraw during the interview. The reason for your involvement is to gain valuable, rich and new information regarding the problem that is researched. You will be asked open-ended questions which will appear on an interview schedule. I will record your answer verbatim on the interview schedule. The interview schedule will be completed anonymously to protect your

confidentiality. I will refrain from publishing any of the participants' personal information.

The open-ended questions will allow me as the researcher to ask clarifying and probing questions on answers you gave. The interview will be semi-structured and will take approximately 60 minutes.

This research will follow a qualitative approach and empirical design. Interviews are an empirical method to gather information and this is one of the data collection techniques that I am going to use in this research. I have used a scientific sampling method to sample you as a participant for this research. You as a participant fall into the geographical area where the research will be conducted. You have the experience and the knowledge of the topic under investigation. You will be able to supply the richest and most valuable information that will help to investigate the topic under investigation.

Respondent's benefits

There are no perceptible financial benefits or incentives available for you. However, it can be proposed that you as the participant will benefit in some way through the process of knowledge production. The result of this study could facilitate the enhancement of the investigation capabilities of the investigators. This study could benefit the academic community since its results could be used in academic material and the results could be accessed by local and international scholars as a source.

The researcher to complete the next section after the information was read to the respondent.

		Yes/No
1.	I the participant have received sufficient information about the study for me to decide whether to take part or not.	
2.	I the participant understand that I am free to refuse to take part if I wish.	
3.	I the participant understand that I may withdraw from the study at any time without having to provide a reason.	

		Yes/No
4.	I the participant know that I can ask for further information about the study from the research team.	
5.	I the participant understand that all information arising from the study will be treated as confidential.	
6.	I the participant know that it will not be possible to identify any individual participant in the study report, including myself.	
7.	I the participant agree to take part in the study.	
8.	I the participant understand that all information will be kept in a code protected safe and that the documents on which the information appears will also be code protected.	

Certificate by participant

I the participant also consent to:

- follow-up interviews if necessary;
- the interviews be recorded in writing; and
- the use of data derived from these interviews by the interviewer in a research report as he deems appropriate.

I the participant also understand that:

- I am free to end my involvement or to cancel my consent to participate in the research at any time should I want to;
- Information rendered up to the point of my termination of participation could, however, still be used by the researcher;
- Anonymity is guaranteed by the researcher and data will under no circumstances be reported in such a way to reveal my identity;
- I am free to determine that specific information that I reveal should not be recorded in writing;
- No reimbursement will be made by the researcher for information rendered or for my participation in this project; and
- I will in no way derive any personal benefit from taking part in this research project; (delete if not applicable and if applicable explain the benefit).

By signing this agreement, I the respondent undertake to:
Give honest and full answers to reasonable questions and not to deliberately mislead the researcher.

I the respondent hereby acknowledge that the researcher/interviewer:

- Discussed the aims and objectives of this research project with me;
- Informed me about the contents of this agreement; and
- Explained the implications of my signing this agreement.

I confirm that quotations from the interview can be used in the final research report and other publications. I understand that these will be used anonymously and that no individual respondent will be identified in such report.

I the participant did receive the original copy of this agreement on signing it.

I the participant understand the contents of this document and agree to voluntary participate in this research.

Signature:
Name in block letters, please

Date:

SECTION 1: HISTORIC INFORMATION

1. What is your age?
2. What is your gender?
3. What are your educational qualifications?
4. What is your job description/title?
5. How long have you been in the investigation field?
6. What training did you receive in the investigative field?
7. Number of years being investigator?
8. Number of insurance fraud cases investigated in the past 12 months?

SECTION 2: CRIME INVESTIGATION

- 2.1 In your own words explain your understanding of the concept crime investigation?

- 2.2 Do you follow a process when you investigate crime?
- 2.3 If the answer to the previous question is yes, can you explain the process?
- 2.4 Do you follow a process when you investigate fraudulent insurance claims?
- 2.5. If the answer to question 2.4 is yes, explain the process that you follow when you investigate fraudulent insurance claims.
- 2.6. How you would define evidence?
- 2.7. In your own words can you differentiate between objective and subjective evidence?
- 2.8. Do you have objectives in mind when you investigate fraudulent insurance claims?
- 2.9. If the answer to the question 2.8 is positive, explain the objectives that you have in mind when you investigate fraudulent insurance claims.
- 2.10. From your experience define what a crime scene is.
- 2.11. What role does a crime scene play in the investigation of fraudulent insurance claims?
- 2.12. In your own, words explain what you understand the concept chain of custody to mean.
- 2.13. How do you maintain the chain of custody in the investigation of fraudulent insurance claims?
- 2.14. Define in your own words the concept of contamination of evidence.
- 2.15. How do you prevent contamination of evidence in the investigation of fraudulent insurance claims?
- 2.16. What methods do you use to document a crime scene?
- 2.17. Define the concept identification in your own words?
- 2.18. What methods or techniques do you use to identify suspects in fraudulent insurance claims?
- 2.19. What do you understand by the term imprint identification?
- 2.20. From your experience explain the concept individualisation?
- 2.21. What methods or techniques can be used to individualise suspects?

SECTION 3: THE USE OF HANDWRITING AS INDIVIDUALISATION TECHNIQUE IN INVESTIGATION OF INSURANCE FRAUD

- 3.1. Explain from a fraudulent claim investigation viewpoint what your understanding of a document is?

- 3.2. List the evidence that can be found and collected from a document that is subject to a fraudulent insurance claim.
- 3.3. From your viewpoint define handwriting.
- 3.4. Did you use handwriting of a suspect as evidence during the investigation of fraudulent insurance claims and for what reason?
- 3.5. Have you ever collected handwriting specimens?
- 3.6. Explain the procedure that you use in the collection of handwriting specimens.
- 3.7. Did you use handwriting as an individualisation technique in the investigation of fraudulent insurance claims?
- 3.8. If the answer to question 3.7 is yes, explain for what purpose was it used.
- 3.9. Explain process of identifying suspect who has committed insurance fraud?

SECTION 4: THE INVESTIGATION OF INSURANCE FRAUD

- 4.1. From your experience define fraud.
- 4.2. Define insurance fraud in your own words.
- 4.3. What do you regard as documentary evidence?
- 4.4. What type of documentary evidence is found during the investigation of insurance fraud?
- 4.5. What is your understanding of a disputed document?
- 4.6. What precautionary methods do you use to protect documentary evidence during the investigation of fraudulent insurance claims?
- 4.7. Elaborate how you collect disputed documents during the investigation of fraudulent insurance claims?
- 4.8. What do you do to prevent contamination of disputed documents?
- 4.9. Explain how you mark disputed documents.
- 4.10. Name and briefly explain the types of insurance fraud that you have investigated or know to be used to commit insurance fraud?
- 4.11. Explain the insurance claim process that is used in your department.
- 4.12. Do investigators use handwriting as individualisation technique when investigating insurance fraud?

6.2 ANNEXURE B: APPLICATION FOR CONSENT ASSUPOL

P. O Box 1238
HARRISMITH
9880

03 October 2018

Forensic Manager
ASSUPOL
PRETORIA

**APPLICATION FOR CONSENT TO INTERVIEW EMPLOYEES AT FORENSIC FORENSIC INVESTIGATION
DEPARTMENT FOR ACADEMIC RESEARCH PURPOSE: MA LELOSA: STUDENT NUMBER 7676352**

1. I am a student at University of South Africa and currently busy finalising my Magister Technologiae (Master's Degree in Forensic Investigation). My supervisor is Dr H.T Lochner who can be contacted at the University concerning anything involving my request and my research study at telephone number 012 433 9413.
2. I hereby apply for a consent from your department to conduct an interview to any of your employee who is willing to be interviewed in order for me to obtain data for my research study. My research is to evaluate the used of handwriting as individualisation technique when investigating fraudulent insurance claims (Fraud) and to find the correct ways of using it to solve insurance fraud cases. The key research questions to be answered by this research are:
 - What an individualisation necessitate?
 - What do you understand Fraud?
 - Use of handwriting as individualisation technique in fraudulent insurance claim?
3. The people who are going to participate will be required to answer the questions that are going to put to them following their experience in the forensic investigation field and their responses to the questions will be revealed in the dissertation.
4. The information obtained from participates will not be used for any other purposes than for the purpose of this research project for a Masters' degree only registered with Programme Group: Police Practice at University of South Africa.

Thank you.

MA Lelosa
MA Lelosa

03/10/2018
Date

Application **APPROVED**/~~NOT APPROVED~~

Place: ASSUPOL PRETORIA

Date: 03/10/2018


Forensic Manager/Administration Officer
N.N. Kubalo



6.3 ANNEXURE C: APPLICATION FOR CONSENT LIBERTY

P. O Box 1238
HARRISMITH
9880

03 October 2018

Forensic Manager
Liberty
JOHANNESBURG

APPLICATION FOR CONSENT TO INTERVIEW EMPLOYEES AT FORENSIC INVESTIGATION
DEPARTMENT FOR ACADEMIC RESEARCH PURPOSE: MA LELOSA: STUDENT NUMBER 7676352.

1. I am a student at University of South Africa and currently busy finalising my Magister Technologiae (Master's Degree in Forensic Investigation). My supervisor is Dr H.T Lochner who can be contacted at the University concerning anything involving my request and my research study at telephone number 012 433 9413.
2. I hereby apply for a consent from your department to conduct an interview to any of your employee who is willing to be interviewed in order for me to obtain data for my research study. My research is to evaluate the used of handwriting as individualisation technique when investigating fraudulent insurance claims (Fraud) and to find the correct ways of using it to solve insurance fraud cases. The key research questions to be answered by this research are:
 - What an individualisation necessitate?
 - What do you understand Fraud?
 - Use of handwriting as individualisation technique in fraudulent insurance claim?
3. The people who are going to participate will be required to answer the questions that are going to put to them following their experience in the forensic investigation field and their responses to the questions will be revealed in the dissertation.
4. The information obtained from participates will not be used for any other purposes than for the purpose of this research project for a Masters' degree only registered with Programme Group: Police Practice at University of South Africa.

Thank you.

MA Lelosa
MA Lelosa

03/10/2018
Date



Application APPROVED/NOT APPROVED

Place: Liberty Life Braamfontein

Date: 11/10/2018

[Signature]
Forensic Manager



6.4 ANNEXURE D: TURNITIN RECEIPT

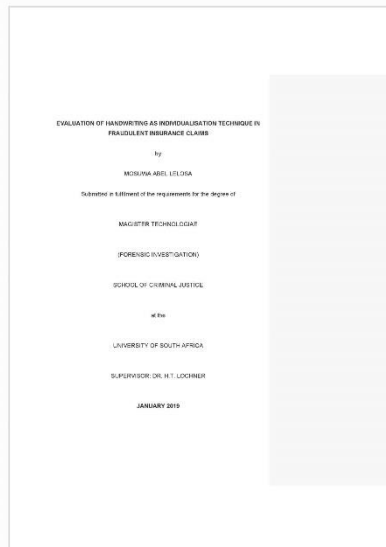


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