UNIVERSITY OF NAIROBI

EXPLORING THE SIGNIFICANCE OF THE EFFECTS OF RELIABILITY OF EYE WITNESS TESTIMONY DURING INVESTIGATIONS AND IN THE TRIAL PROCESS

(A Case Study of Adult and Pre-Adult Witnesses)

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C50/85428/2016

A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF PYSCHOLOGY (FORENSIC) IN THE DEPARTMENT OF PYSCHOLOGY OF THE UNIVERSITY OF NAIROBI

JUNE, 2019

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DECLARATION

The research project is my original work and has not been presented for a degree in any other University.

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This research project has been submitted for examination with my approval as University Supervisor.

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DEDICATION

This project is dedicated to my aging mum for her encouragement. She told me that knowledge is a lifestyle aspired by many but acquired by few.

ACKNOWLEDGEMENTS

Special thanks to the informants in this research, who included the Court Clerks, Prosecutors, Ex-Convicts and the Milimani Court Registry staff who shared their experiences in Court matters that enabled this research to be written.

My deepest gratitude goes to my Supervisor, Dr. Lucas Mwaura for friendly and knowledgeable support, encouragement and giving me confidence in my moments of doubt.

Thank you.

ABBREVIATIONS

A.F.I.S	Automated Fingerprint Identification System
C.I.T	Cognitive Investigation Techniques
C.S.T	Competence to Stand Trial
D.C.I	Directorate of Criminal Investigations
D.P.P	Director of Public Prosecution
E.A.C.C	Ethics and Anti –Corruption Commission
ID	Identification
M.C.I	Modified Cognitive Interview
M.T.R	Motivation to Remember
UFED	Universal Forensic Extraction Device

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ABSTRACT

The justice system in Kenya and world over heavily rely on eyewitness testimonies to convict the suspects and therefore extracting maximum credible amount of information from an eyewitness helps to prevent wrongful conviction. The aim of the study was to explore the significance of reliability of eyewitness testimony involving adults and pre-adult witness during investigations and consequently in the trial process The specific objectives of the study was to assess the influence of cross-examination on reliability of eyewitness testimony during trial process, to determine the impact of fear by eyewitness when testifying during investigations, including interviewing techniques and to examine the effectiveness and reliability of expert witness testimony during investigation process. This research adopted a mixed method approach to collect both qualitative and quantitative data from the legal system practitioners who included prosecutors, defense attorneys and police officers that were tried at Milimani law courts in Nairobi County. The study findings show that cross-examination tactics in Kenya are adversarial. The system remains purposefully challenging to eyewitnesses. The structured interview (SI) is the commonly used for witnesses and victims interrogation technique to get information by police officers as compared to the Cognitive Interviews(CI).Some trial courts, judges and magistrates allow an expert witness to testify about the unreliability of eyewitness testimony if the expert testimony is deemed reliable under certain circumstances of the case. This implies to the need for expert evidence. Therefore, cross-examination, interview technique and expert witness testimony has significant effect on reliability of eyewitness testimony. There is need to adopt international good practice guidelines in cross-examination, interview technique and use of scientific procedures, admit expert eyewitness testimony in criminal cases to avoid wrongful convictions.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

In the Kenyan justice system and world over, once one has been accused for an alleged criminal act, it is the duty of the prosecution through eyewitness(s) to assist in identifying the suspect, giving an account of the events that took place in order to incriminate the suspect. Eyewitness can be a bystander or a victim who happened to have been involved or observed the happenings at the scene of crime or alleged illegal act(s) at the time it took place. He/she can also be an observer who could view properly the happenings at the time the alleged illegal act(s) took place. It is the substance of the facts of the evidence or testimony the witness gives to the courts or interview statements by investigating law enforcement officer(s) that forms the basis of the decision of the jury to either convict or acquit the suspect. As perhaps the single most effective method of proving the element of crime, eyewitness testimony has been vital to the investigating officers and to the trial process for a long time. However the reliability of the eyewitness testimony has been put into question considering the large number of innocent convicts that raises more concern than the wrongly acquitted, since it is better to acquit a criminal than to convict an innocent person. According to the Innocent Project an NGO in USA which fights for justice for the wrongly convicted, 75% of those previously convicted using eyewitness testimony were exonerated in the advent of DNA and AFIS (Automated Fingerprint Identification System) technology.

Eyewitness testimony possibly being the most seasoned type of proof is ordinarily given the most believability by the examinations and in the court after admission, and along these lines it ought to be conceded with alert and with the understanding that, there are sure factors that can diminish its reliability. Understanding the variables influencing eyewitness testimony reliability is one of the manners by which improper conviction rates can be lessened. These factors includes false confession, intimidation or threats, compromised memories, conflict of interests, qualities of interviewers/interrogators, language barriers between interrogators and interviewers, gender, age e.g. child witnesses and concept of children to interrogation, unreliable interpreters in a court of law; weapon focus, stress and anxiety, environmental factors, cross-race and cross gender bias, human perception, attention and arousal. Obtaining most extreme measure of precise data from an eyewitness forestalls unjust feelings. The most

essential determinant of whether a wrongdoing is tackled is the fulfillment and accuracy of the eyewitness testimony (Fisher, 1995).

Also, nitty gritty and precise eyewitness testimony builds the likelihood that the trier of certainties will render a right decision (Fisher 1995). It additionally helps law requirement officers in acquiring admissions from blameworthy suspects, enables guard lawyer to successfully speak to honest respondents, and helps the judge in arraigning liable litigants (Fisher, 1995).

Eyewitness testimony was respected in high regard in legitimate framework until the point when entry of DNA testing (Wells, Memon and Penrod, 2006), when all of a sudden men waiting for capital punishment were being found not guilty. This exemption caused much soul-seeking in the lawful field. A large number of the investigations that pursued have involved broken eyewitness distinguishing pieces of proof as the reason for greater part of unfair feelings particularly with the establishing of Innocent Project in New York City in 1992 (Gould and Leo 2010). Their point was to give DNA testing to explore detainees' cases of guiltlessness.

The reason why the juries placed so much emphasis on eyewitness testimony is the believe that duress, heightened arousal, emotions improves memory, which in reality is not true. Research has likewise exhibited that pressure initiating parts of a wrongdoing can be specifically identified with diminished accuracy especially if a firearm or other weapons are used. The effects results from the witness giving careful consideration to the weapon at the expense of other periphery details of the perpetrator, and as a result the witness have challenges in identifying the perpetrator in a parade or photo lineup, a phenomenon known as “weapon focus.’’

Witnesses are profoundly powerless against the defilement of their memory of an occasion. Amid meeting process, the witness memory can without much of a stretch be changed if law requirement work force give any outside data to the witness. Deciding whether an eyewitness' memory has been tainted amid meeting is critical, on the grounds that eyewitness memory is moldable. Besides, when adjusted by post – occasion data, eyewitness unique memory of wrongdoing can't be reestablished (Bartol and Bartols 2004). Post-evidence occasion data influences eyewitness' memory of the wrongdoing as well as disable ID accuracy (Lanes & Lophis 2008).

Surveying if eyewitness' certainty has been falsely expanded preceding getting an announcement of the eyewitness' certainty is basic on the grounds that, as beforehand made reference to, for the most part eyewitness certainty is the most imperative factor the trier of actuality utilizes in assessing eyewitness accuracy (well et al; 1998).

It has additionally been proposed that, to enhance the estimation of eyewitness testimony, the lawful framework needs to investigate the way in which eyewitness testimony and proof are gathered. One issue is lacking preparing of cops to direct successful meetings (Fisher and Geiselman, 2010). One thing that officers can control is the strategies they use to talk with witnesses (Fisher and Geiselman, 2010).

At present, the greater part of their preparation centers around proficient report composing, training about the law, court testimony the standards of the street, taking care of proof and overseeing groups and clashes between regular folks (Fisher and Geiselman, 2010). As a general rule the meeting hones at present instructed to officers have more spotlight on cross examining potential suspects for data or to motivate them to concede blame (Richards Morris &Richards, 2008).

In view of the idea of memory if a one-sided meeting or recognizable proof methodology is led, the blunder can't be rectified by later directing a reasonable and fair-minded meeting or ID system (Bartol, 2004). Therefore, if a one-sided distinguishing proof was led, not exclusively should the eyewitness' recognizable proof from one-sided ID be assumed incorrect, yet any consequent ID, even from a reasonable ID technique, ought to be assumed mistaken.

Interestingly assuming reasonable and fair meetings and recognizable proof techniques were led, the eyewitness testimony and distinguishing proof will probably be precise regardless of whether the eyewitness conditions amid wrongdoing were to some degree less perfect. Hence while examining the accuracy of the eyewitness testimony, in every case initially survey how the eyewitness meetings and recognizable proof systems were led. Witnesses include the victim(s) of crime normally taken to be the main witnesses, eyewitness, expert witness and the police investigating officers. While expert witnesses include medical doctors, document examiners and government chemist experts and forensic psychologists, their failure to attend courts during trials may lead to termination of many cases leading to miscarriage of justice.

1.2 Statement of the Problem

Eyewitness testimony has for some time been utilized in our court framework to distinguish the perpetrator(s) of the wrongdoing appropriately. This kind of proof is overwhelmingly powerful to a jury. Juries think that it's difficult to disregard such generous cases even when there is little additional evidence. In most cases when a story is narrated for the first time, it may be accurate and clear. As time goes due to memory loss, the narrator may not be able to recount everything that he/she relayed the first time. With more practice and redundancy, the erroneous data winds up mixed with what is valid and one adjusts the false points of interest with indistinguishable certainty from those viewpoints that were valid.

While this is certifiably not a colossal issue in regular circumstances, the results can be desperate when in a court setting. It is a common trend by most witnesses here in Kenya and elsewhere not to come forward to testify in criminal courts. Sometimes even key witness refuse to testify or even to appear in court during trial, thus impending the functioning of the criminal justice process. In Kenya there have been instances of mixed up personality, even death row prisoners who are later discharged because of unfair feelings dependent on eyewitness testimony. Improper feelings do unsalvageable harm as the liable walk free and blameless man or lady is scarred until the end of time. It is for this reason that this study intends to carry out research which aims at exploring the significance of the effects of reliability of eyewitness testimony.

1.3 Study Objectives.

1.3.1 General Study Objective

To explore the significance of the effects of reliability of eyewitness testimony, involving adult and pre-adult witnesses during investigations and within the court process.

1.3.2 Specific Study Objectives

1. To evaluate the effect of the influence cross examination has, on reliability of eyewitness testimony during court trial process.

2. To determine the impact of fear on eyewitness and his/her testimony reliability during interrogation, including Cognitive Interviewing Techniques.

3. To evaluate the effectiveness and reliability of expert witness (forensic psychologist) in trial court during sentence mitigation (insanity defense).

1.4 Key Research Questions.

This study will be guided by the following research questions:

1. To what extent does cross examination influence the reliability of eyewitness testimony?

2. What impact does fear have on eyewitness and his/her testimony during interrogation, including cognitive interviewing techniques (C.I.T)?

3. How effective and reliable is the expert witness (forensic psychologist) in trial court during sentence mitigation (insanity defense)?

1.5 Justification of the Study

The justice system is arguably the most directly powerful institution in societies subject to the 'rule of law' (Gibbons, 2003. p.75). In Kenya, trial court dealing with the most serious of crimes operates under an adversarial system. In such a system, the court acts as an independent and objective referee during the presentation of evidence from both the prosecution and the defense. A person is considered innocent until proven guilty and culpability must be proved beyond reasonable doubt. However in criminal cases where eyewitness testimony is the sole or primary evidence of the defendant's guilt, pose the greatest danger that erroneous eyewitness testimony will result in a wrongful conviction.

Eyewitness researchers have not only discovered what factors affect eyewitness accuracy during the crime, but have also discovered what safeguards are necessary to minimize eyewitness errors during interviews and identification productions. To prevent and reduce eyewitness errors, law enforcement must effectively implement safeguards that ensure that the identification of a suspect is the product of the eyewitness's memory and not how the identification procedure was conducted. Accordingly, the State should minimize the number of cases it brings where eyewitness evidence is the sole or primary evidence of the defendant's guilt (Fisher, 1995).

In Kenya today, there is evidence of wrongful convictions, although the number is no yet well established. Therefore, this research topic was chosen purposely to demystify and understand why wrongful convictions occur due to eyewitness error despite the safeguards put in place to prevent and reduce eyewitness error.

This study may be vital in helping agencies and bodies like the National Witness Protection Agencies and programs that will provide witness services such as long term relocation in order to guarantee witness's security. The study will also justify the use of the latest technology to backtrack crucial evidence like use of DNA, Automated Finger Printing Identification System (AFIS) and Universal Forensic Extraction Device (UFED) in cases where witnesses are unwilling to testify or detecting those who give false testimony.

1.6 Significance of the Study.

Kenyan criminal justice system, like any other adversarial legal system of justice around the world, has gaps and challenges in guaranteeing access to justice and the right to a fair trial for everybody, particularly the vulnerable in society. One such serious challenge is wrongful convictions occur due to eyewitness error and ineffectiveness of safeguards put in place to prevent and reduce eyewitness error. The greatest miscarriage of justice that any legal system can make is to convict an innocent person of a crime, a fact that has been witnessed in Kenya. Wrongful convictions also undermine the public's faith in the criminal justice system, especially when the system fails to institute safeguards that could significantly reduce wrongful convictions. The findings of this study are significant and will inform policy makers in the Judiciary and experts working in the human rights field on the need for Justice System reforms.

This study may also be of significance to academicians in related fields and other courses related to crime. The study may also assist the Law enforcement officer(s) in improving their interviewing techniques to obtain credible evidence from witnesses. The period taken for research 2010 – 2015 is significant in that with the promulgation of the country's new constitution in 2010, the investigating bodies like EACC, DPP and DCI were made either autonomous or semi-autonomous and this empowered them to carry out their functions freely and independently which may have enhanced their efficiency. The improvement and the independence of the Judiciary also enhanced the determination of delayed cases. The study is limited to adults up to the age of 50 years and pre-adults from 11 years and above. From the

research on age and recall, there seems to be a common pattern where the ability to recount events and recognize unfamiliar faces increases steadily from childhood through adolescence, peaking between 14 and 17, then slowly declining and then dropping sharply past 50 years of age. The trends of the above age bracket have almost a similar trend in testimonies and face recognition according to Cutler and Penrod 1995.

1.7 Purpose of the Study.

The study will generate information and add to the body of knowledge by providing critical information regarding the need for risk assessment on reliability of eyewitness testimony during investigations of criminal cases. The information generated through this study can be used as a basis for future research.

1.8 Scope of the Study.

The study will focus on testimonies of adults and pre adult witnesses between 11-50 years from investigations of cases tried in Nairobi County between 2010- 2015. Individuals who have been witnesses in a given case and may be willing to get involved once the verdict was made. Their responses in the research process will improve the future investigation processes.

1.9 Study Assumptions:

The assumptions of this study include:

Criticism from the two experts in investigating and legal counselors is vital for helping insightful questioners to adjust the requirements for particular details while guaranteeing their inquiries limit mistake in both the adult and pre- adult's account

The adversarial nature of the trial process in Kenya scares the witnesses from coming forward to testify since the constitution is skewed in favour of the defendant and as such also contributes to non- cooperation by witnesses in the trial of criminal cases

A witness is assumed to be equipped enough to both understand address put to them and give appropriate responses in criminal cases.

1.10 Study Hypothesis:

Therefore the study is premised on the following hypothesis:

H1:

Hypothesis 0 (H0)*:* Cross examination permits styles of scrutinizing evidence that builds eyewitness' suggestibility and increase eyewitness error.

Hypothesis 1 (H1)*:* Cross examination does not permit styles of scrutinizing evidence that builds eyewitness' suggestibility and increase eyewitness error.

H2:

Hypothesis 0 (H0)*:* Questioning techniques are not structured to elicit fear but to extract the most accurate eyewitness recount.

Hypothesis 1 (H1)*:* Questioning techniques are structured to elicit fear but not to extract the most accurate eyewitness recount.

H3:

Hypothesis 0 (H0)*:* Expert psychological testimony inclusion improves a juror's ability to mitigate eyewitness testimony in a court trial.

Hypothesis 1 (H1)*:* Expert psychological testimony inclusion does not improve a juror's ability to mitigate eyewitness testimony in a court trial.

The hypotheses are based on the nature of trial process in Kenya in that from the beginning it casts doubt on the veracity of the eyewitness testimony.

1.11 Limitation of the study

There are a number of limitations within the present study that have been identified. The first limitation of this study was that it was impossible to get individual eyewitnesses as participants in the research because:

1. The witnesses were not willing to revisit particularly traumatizing incidences and said they would rather forget concluded cases and heal from the trauma.

2. Those witnesses and victim who were willing to be interviewed were making monetary demands as incentives to participate. The researcher felt this would have led to bias in the research results due to the demand characteristics, evaluation apprehension and social desirability. Thus the researcher opted to work with professionals in the criminal justice system namely prosecutors, the law enforcement officer and the defense attorneys.

3. The target respondent age factor was also affected because of the lack of the pre-adults who were of the young age. Therefore, the age of the study target population was adjusted up-wards to accommodate the majority respondents age; 18-60 years.

4. Due to lack of pre-adult eyewitnesses, the study relied on professional case files and related relevant experiences of handling similar cases.

5. The questionnaire that participants were asked to complete on their perception of eyewitness credibility, was made up entirely of former case file free recall questions that may have prompted the responses of the participants.

1.12 Definition of key terms and concepts

The following key terms have been used in this research and will bear the following meanings as defined below;

Criminal justice system; this term will be used to refer to the functionally related agencies charged with the delivery of justice i.e. the police, the legal system and the corrections.

Cognitive interviewing techniques (CI) is a strategy for talking eyewitnesses and unfortunate casualties about what they recall from a wrongdoing scene

Criminal investigation: involves the investigation of realities used to distinguish, find and demonstrate the blame of a denounced individual.

Criminal trial: this term will be used to mean the process of adjudication.

Eyewitness: an individual who has seen something occurs and can give a first depiction of it.

Testimony: evidence or proof of something.

Trial: a formal examination of proof by a judge, commonly before a jury, with the end goal to choose coerce for a situation of criminal or common procedures.

Insanity defense: It is that process during the trial where the individual or suspect is evaluated in terms of fully or partially irrational when he or she committed the crime where insanity affected his or her behavior.

Competence to stand Trial: Aspect where the psychologist is concerned with individual's capacity at the time of trial preparation and trial itself to understand the charges and their consequences in the legal proceedings.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews literature related to significance of risk assessment on reliability of eyewitnesses‟ testimony during investigations and trial processes. The chapter specifically focuses on the study's objectives which are; to evaluate the influence of cross-examination on reliability of eyewitness testimony, to determine the impact of fear on eyewitness and his/her testimony during interrogation and to evaluate the effectiveness and reliability of expert witness testimony in trial court during sentence mitigation by the jury. It further covers theoretical literature by studying the following theories; Bartlett's Theory of Reconstructive Memory and Fuzzy Trace Theory. It finally summarizes the findings through a conceptual framework which relates the independent variable with the dependent variables in the study.

2.1 The Kenyan Criminal Justice System

2.1.1 Legal framework: an overview

The criminal justice procedures and mechanisms in Kenya are framed into the Penal Code and the Criminal Procedure Code 1930; revised in 2014, beyond the core Kenyan legal instrument, the Constitution. However, the panorama of supplementary laws and acts issued by the Kenyan Parliament to regulate specific aspects and criminal issues is quite wide (Available at http://www.kenyalaw.org/lex//actview.xql?actid=CAP.%2075). The Constitution of Kenya (2010) lays the foundation upon which criminal procedure is premised. Article 50 (2) b of the Constitution provides that "*the right to a fair trial includes the right of the Accused to be informed of the charge, with sufficient detail to answer to it*". The Article also states that evidence obtained in a manner that violates any right or fundamental freedom in the Bill of Rights shall be excluded if the admission of that evidence would render the trial unfair, or would otherwise be detrimental to the administration of justice, among other provisions (The Constitution of Kenya, 2010).

2.2 The Trial Process in Kenya

The main principles that regulate a trial in Kenya are that a suspect person is innocent until proven guilty; hence it is the prosecution that has the obligation to produce evidence and to

prove the suspect guilty beyond reasonable doubt. If the trial judge or magistrate is of the opinion that the case is not complete enough to require a defense, then the case will be dismissed and the accused will be acquitted under Section 202 of the Criminal Procedure Code. Rejection of charges under Section 89 (5) of the Criminal Procedure Code resulted in a discharge.

Kenya inherited an Adversarial System of Trial at independence. The nature of this trial process is that from the very beginning, it casts doubt over the veracity of the witness' testimony and is skewed in favor of the defendant. This process is premised on a traditional principle that, ten (10) guilty persons escaping punishment is better than one innocent person being convicted. Hence, a witness goes through three rigorous examinations during trial in court to ascertain the truth of his/her testimony, namely; Examination in Chief, Cross-examination and Re-examination. Examination in Chief is done by the Court Prosecutor, who leads the witnesses to give their testimony in court. During this time the witnesses state all what they know about a case. Then the defendant or his attorney is given a chance to face the witnesses and examine them in what is referred in legal jargon as, Cross-Examination of witnesses. The Evidence Act makes provision for instances where a witness may be cross examined on a statement previously made by them. Under section 153 thereof, provision is made for cross examination as to previous statement made by them. It provides as follows:

> *"153. A witness may be cross-examined as to previous statements made by him in writing or reduced into writing, and relevant to matters in question, without such writing being shown to him or being proved, but if it is intended to contradict a witness by a previous written statement, his attention must, before the writing can be proved, be called to those parts of it which are to be used for the purpose of contradicting him."*

Under section 161 of the same Act provision is made for cross examination of own witness at court's discretion as follows:

> *"161. The court may, in its discretion, permit the person who calls a witness to put any questions to him which might be put in cross-examination by the adverse party."*

And finally section 163 provides for ways in which the evidence of a witness can be impeached as follows:

163. (1) The credit of a witness may be impeached in the following ways by the adverse party, or, with the consent of the court, by the party who calls him –

(a) …

(b) …

(c) by proof of former statements, whether written or oral, inconsistent with any part of his evidence which is liable to be contradicted; …"

The reason given for Cross-Examination of witnesses is to undermine or impugn the credibility of the witness, so as to persuade the court, that the witnesses said nothing that can be relied upon. This moment is considered by witnesses to be very humiliating, embarrassing and degrading because the defendants mostly confront the witnesses by not only asking personal but also annoying questions not even relevant to the case. Moreover, in such a crude contest between the parties, many witnesses complain of mistreatment in the hands of the Criminal Justice Agencies considering it unfair especially for someone who is only acting voluntarily to further the public good of ensuring justice. Cross-examination aspect has thus been widely blamed to hamper the justice process by intimidating witnesses, hence non-cooperation. Re-examination of witnesses is done by the Court Prosecutor to the witnesses to re-align their evidence considered swayed off the track by the defense side during Cross-Examination.

A noticeable feature in both criminal and civil cases in Kenyan courtrooms is the large number of litigants who are unrepresented by counsel. A report by the International Bar Association (2010) asserts that 'legal fees are too high for most Kenyans' (p. 69), an assertion shared by the Legal Advice Centre (2000) who report that many Kenyans are forced to represent themselves in court due to high legal fees. Such lay litigants are expected to mount their own defense and this involves cross examining witnesses who have testified against them.

The adversarial nature of the trial process in Kenya thus scares the witnesses from coming forward to testify and as such also contributes to non-cooperation by witnesses in the trial of criminal cases. This in the long run affects the dispensation of criminal justice in Kenya. In Anthony, (2009) it is contended that… "Giving live testimony in an oral trial is scary and humiliating while the desire for a showdown with the litigants makes impressive tensions". Moreover, it is sometimes feared that members of the criminal gang also attend court purposely to intimidate witnesses within the court precincts even before trial begins. This is when a

member of the said gang is a defendant in a case. Sometimes members of the gang are said to wear black clothes in Court informally intimidating or communicating death threats to witnesses. Legal intercession to diminish wrong and excessively forceful and embarrassing questioning will then be very useful to cushion witnesses from such experience. States intervention by coming up with Witness Protection Programs and Services will also support witnesses cooperation. The arrangement of witness assurance is a critical segment of Criminal Justice Process. Witness assurance supports the achievement of criminal equity, extraordinarily on the grounds that it would improve collaboration which is truly required. For witnesses particularly of touchy wrongdoings to affirm, they should believe in the states' capacity to assure them Protection.

2.3 Reliability of Eyewitnesses Testimony

Eyewitnesses are generally lay individuals who have witnessed the crime or have some knowledge of the crime that is then shared with the court through presentation of their testimony. In the case of lay eyewitness accounts, no opinions or speculation are allowed to be rendered by the witness (Lampert et al., 2013; Nemeth, 2010). The general consensus among researchers is that jurors are willing to accept the accuracy of eyewitness testimony despite the fact that these individuals are lay people with no specialized training and the overwhelming empirical evidence in existence that indicates a myriad of ways in which eyewitness accounts can be mistaken (Goodman & Loftus, 1992; Spellman & Tenney, 2010; Whitley, 1987).

The reason for this error in judgment often is related to the credibility assessment rendered by the jurors and how these perceptions of credibility are established for eyewitnesses on the witness stand. There are several prominent ways in which jurors assess credibility for lay eyewitnesses. For example, providing specific details about the event compared to general or vague information is more convincing to jurors and provides cues as to the eyewitnesses' level of credibility as witnesses (Bell & Loftus, 1989).

Those eyewitnesses who are able to provide more detail are perceived as more credible than those who are unable to provide specific details about the crime or event (Bell & Loftus, 1989). This effect would seem reasonable except that specificity or detail does not necessarily equate with accuracy. Detail is often viewed as a meter of veracity; the more detail included in the statement, the more truthful one is being in their account of the event (Borckardt, Sprohge, & Nash, 2003).

Therefore, when eyewitnesses are asked to provide specific details about a scene, oftentimes they will rely on schemas about what would likely have been present or to have taken place at the time to fill in any vague pieces in their memory (Brewer & Treyens, 1981). Specifically, incorporating schemas when recalling events misrepresents the actual knowledge and memory the eyewitness has for the event to jurors. Therefore, jurors may base their decisions on information about the case or the eyewitnesses' appearance to accurately portray the occurrence of the incident that is potentially incorrect. Again, the focus for previous researchers has been on lay individuals with no consideration of other types of eyewitnesses.

Another important, yet commonly misconstrued area in witness credibility assessments is the area of deception cues. Like most people, jurors rely on common stereotypical cues to determine when someone is attempting to be deceitful (Zuckerman, Koestner, & Driver, 1981).These cues include behaviors like fidgeting, shifting, lack of eye contact, and/or specific speech patterns like inconsistent narrative, uncertainty, and self-correction (DePaulo et al., 2003; Granhag & Strömwall, 2002; Hartwig, Granhag, Strömwall, & Vrij, 2005). Unfortunately, many of these cues are actually not indicative of deception and are often displayed by individuals who are telling the truth (DePaulo et al., 2003; Zuckerman et al., 1981).

Many jurors (Zuckerman et al., 1981) and even legal professionals like police officers (Mann, Vrij, & Bull, 2004) rely on these cues in order to make credibility judgments, often mistaking the veracious for the deceptive. In fact, most people, professionals included, perform no better than chance in detecting deception when using these stereotypical cues (Vrij, 2000). However, individuals still attempt to avoid these overt behavioral cues because of these stereotypes (Spellman & Tenney, 2010).

In the case of witnesses, a witness would avoid these cues in order for their testimony to be viewed as truthful and accepted by jurors and other members of the court. One of the most compelling factors in eyewitness testimony is the degree of certainty the eyewitness exhibits for his/her memory of the event (Pezdek, 2012; Read, Lindsay, & Nicholls, 1997).

Jurors construe eyewitnesses as more believable when they convey high degrees of certainty when presenting their testimony than eyewitnesses who are less certain (Read, Lindsay, & Nicholls, 1997). Unfortunately, previous researchers have found that certainty is not always

highly correlated with accuracy in eyewitness recollection (Tenney, MacCoun, Spellman, &Hastie, 2007; Tenney, Spellman, & MacCoun, 2008).

Even when an eyewitness is very certain for what they saw or heard, it does not mean that his/her memory for the event is any better than an eyewitness who is less certain. Therefore, jurors are relying on aspects of eyewitness characteristics to make veracity judgments that are not necessarily the most representative of accuracy. The examples illustrated above are all related to characteristics that witnesses exhibit while on the witness stand that influence juror perceptions. There are other factors that influence juror perceptions that do not necessarily occur within the course of the trial, but can be brought into the case as relevant information. For example, character or reputation accusations can also persuade juror opinions about the witness (Kassin et al., 1990).

For lay eyewitnesses however, once one's character or veracity is called into question in court, there are strict evidentiary procedures in place to protect the witness from undue tainting that may directly alter juror perceptions (see rule 608, Lampert et al., 2013). Attorneys are not allowed to attack a witness' character directly without substantial evidence to support such accusations. For example, if the witness has a prior conviction, then it is open to scrutiny during cross-examination and may be used as a means of discrediting the witness' character (see rule 609, Lampert et al., 2013).

However, other forms of misconduct are not typically allowed to be used as evidence to impeach the witness' character or credibility. Furthermore, a witness' credibility may be challenged in lieu of specific instances of misconduct only when the witness provides biasing information during cross examination him/herself or through the testimony of an additional witness called to testify on the character of the principal witness (i.e. character witness) (see rule 608, Lampert etal., 2013).

In short, factors external to the trial that must be brought into the proceedings to influence witness credibility are convoluted at best and often difficult to navigate in practical application in the courtroom setting. Because the rules of character and credibility evidence are not the same for all types of witnesses, the way in which credibility is established differs for these other types of witnesses as well.

2.3.1 Cross-examination on reliability of eyewitness testimony

Cross-examination is considered by some to be the primary protecting procedure in an antagonistic framework (Ellison, 1999). In any case, numerous scholastics and specialists trust that the procedure is all the more as often as possible utilized as a way to assault a witness' believability, restricting the effect of their proof in court (Cossins, 2009; Henderson, 2012; Spencer and Lamb, 2012; Zajac, O'Neill, and Hayne, 2012).

The every so often forceful and accusatory nature of cross-examination was conveyed to the consideration of the media in an ongoing sexual maltreatment case in the UK in 2013. In this particular case, one injured individual was exposed to 12 days of cross-examination amid the trial and was over and again yelled at by different guard legal advisors. Different exploited people were blamed for lying about their proof (Norfolk, 2013).

Current cross-examination rehearses are advanced by existing lawful preparing and direction. Graduate schools put an accentuation on the utilization of convincing addressing systems to control the introduction of proof in the legal advisors' support (Clark et al., 2010). The impacts of these practices on a witness' accuracy in court are probably going to be a bit of hindsight, or not considered by any stretch of the imagination, as the legal counselor is prepared to utilize any methods important to get a witness to give the coveted reaction. As witnesses of all ages can give proof in court on the off chance that they are regarded to be equipped, youthful and helpless people are available to this testing style of meeting. A witness is esteemed skillful on the off chance that they can both grasp addresses put to them and gives strong reactions. Both these capacities are required to empower an important cross-examination to occur. Mistaken evaluations can keep the testimony of an able witness from being utilized as proof when competency could have been sufficiently exhibited with suitable addressing.

Eyewitnesses are cross-inspected in pretty much every trial in which they affirm. A few courts have discovered this is adequate to exhibit eyewitness inaccuracy to a jury. For instance, a barrier lawyer could cross-look at an eyewitness on the survey conditions at the wrongdoing scene: Was it dull out? Sprinkling? Safeguard guidance can emphasize any shortcomings in the testimony in shutting contention, and request that the jury draw deductions from these shortcomings. However even the most adroit cross-examination may not successfully uncover wrong eyewitness distinguishing pieces of proof. Numerous eyewitnesses are coming clean as

they review it; they are just mixed up. Since they trust they are coming clean, they are to some degree less powerless against cross-examination.

Besides, for cross-examination to be successful, lawyers must be knowledgeable in the elements that add to eyewitness inaccuracy. In any case, lawyers are not clinicians, and research has demonstrated that they are not especially educated about the components influencing accuracy. Reliable with these troubles, a few examinations show that when deride hearers see eyewitnesses cross-inspected, even by experienced legal advisors, the attendants are no better ready to recognize exact from mistaken eyewitness testimony. The procedure of cross-examination can have a damaging impact on tyke witnesses (Eastwood and Patton, 2002). Be that as it may, it stays faulty whether cross-examination could be accomplished without utilizing any shut or driving addressing (Mildren, 1997).

Memory follow quality has been talked about as a methods for enhancing suggestibility utilizing proof from both tyke and grown-up studies (Henry and Gudjonsson, 2004; Holliday et al., 2002). These distinctions happen in light of the fact that the learning and abilities to recover and recognize the wellspring of recollections are not completely created in more youthful witnesses. It can in this manner be normal that the proposed advantages of revived testimony on cross-examination execution, through expanded memory follow quality, are applicable to all age gatherings. Nonetheless, proof of these advantages might be less demanding to identify in a grown-up test that have the vital abilities to exploit increments in memory follow quality (Holliday et al., 2002).

2.3.2 The effect of cross-examination on the accuracy of eyewitness testimony

Cross examination grants styles of scrutinizing that builds eyewitness' blunder (e.g. driving inquiries). Albeit cross examination is some of the time viewed as a ground-breaking truth looking for instrument (Steven, 1992; Wigmere, 1974).Lab explore has demonstrated that, instead of serving its job as a shield for reality, cross examination is frequently negative to the accuracy of onlookers account because of its word intensifying nature(Zajac, O'neill and Hayne , 2012).

Cross-examination permits styles of questioning that increase eyewitness error (e.g. leading questions). Under cross-examination children, for instance, change many of their initially accurate answers (Zajac & Hayne, 2003; 2006). A substantial body of research has demonstrated that eyewitness memory can be highly malleable.

Eyewitness memory can be distorted by suggestion from information acquired after the relevant event was witnessed (Loftus & Hoffman, 1989; Wright & Loftus, 1998), by the style of questioning that a witness encounters (Loftus & Palmer, 1974; Loftus & Zamni, 1975) or by repeated questioning (Odinot, Walters & Lavender, 2009). Eyewitnesses have been shown to be influenced by misleading information acquired through questioning (Loftus, Miller & Burns, 1978) or discussion with a co-witness (Gabbert, Memon & Allen, 2003).

It has been postulated that cross-examination cannot mislead an honest witness (e.g. Stone, 1988). However, earlier research has challenged this belief for vulnerable witnesses, including children and witnesses with learning difficulties (Kebbell *et al.*, 2004; Zajac & Hayne, 2003, 2006, Zajac *et al.*, 2003). Both adults and children may show memory distortion, but children and other vulnerable witnesses are likely to be especially susceptible (Holliday *et al*., 2009).

Yet the styles of questioning commonly used in cross-examination include question formats that can limit the completeness and accuracy of the answer; including leading questions, use of negatives, closed questions, either/or questions, yes/no questions, and multiple questions (Kebbell, Deprez & Wagstaff, 2003; Kebbell, Hatton & Johnson, 2004; Perry, McAuliff, Tam, Claycomb, Dostal & Flanagan, 1995; Zajac, Gross & Hayne, 2003). Texts on cross-examination advocate use of leading questions, and techniques to undermine the credibility of a witness. Furthermore, cross-examination might be expected to be detrimental to a witness's testimony due to factors which are known to increase witnesses' suggestibility, such as a long delay between witnessing the event and cross-examination (Read, Connolly, Toglia, Ross & Lindsay, 2007) and the perceived high status and authority of the cross-examiner (Roper & Shewan, 2002).

During cross-examination, lawyers may purposefully introduce post-event information and suggest details to a witness through leading questioning. They may pose alternative scenarios to those described by the witness, or may discuss details about the event that the witness did not see, or did not take place, placing pressure on a witness to accept the alternative version of events. The aim of this is to get the witness to contradict their own testimony, by changing their responses, so that they appear less credible (Clark et al., 2010; Slapper, 2007; Wellman, 1903; 1997).

The effect of post-event information on memory and response accuracy is therefore relevant to cross-examination performance consideration. The extent to which an individual is influenced

by post-event information and certain questioning styles is referred to as suggestibility and can occur under a range of conditions (Ridley, 2013).It is important to distinguish between the different forms of suggestibility when considering eyewitness memory. A witness' evidence can be affected in more ways than one. The acceptance of misleading or inaccurate post-event information can be *immediate*, resulting from a leading question, and/or *delayed*, resulting in incorrect recall as a result of an earlier exposure to misinformation (Eisen, Winograd, & Qin, 2002; Ridley & Gudjonsson, 2013).

Immediate suggestibility has been associated more with individuals who are agreeable and intelligent whereas delayed suggestibility is greatest in individuals with poorer recall skills (Eisen et al., 2002). Eisen et al. concluded from this that immediate suggestibility could be attributed to social factors and pressures during questioning and that delayed suggestibility was a result of an inability to distinguish between the observed event and the false information, essentially a source monitoring error (Eisen et al., 2002; Ridley & Gudjonsson, 2013).

In immediate suggestibility, the emphasis is based on social compliance: an individual makes a behavioural change to respond to social pressures, regardless of whether or not the response corresponds with their memory of the event (Gabbert & Hope, 2013; Gudjonsson, 1984, 1986, 2013; Gudjonsson & Clark, 1986). This form of suggestibility is more typically referred to as *interrogative suggestibility* (Gudjonsson, 1984, 1986, 2013; Gudjonsson & Clark, 1986), and is likely to influence cross-examination performance due to the challenging and aggressive nature that this style of interviewing can take (Norfolk, 2013).

Delayed suggestibility is more commonly referred to as the 'misinformation effect', first identified in the early work of Elizabeth Loftus and colleagues (Loftus, Miller, & Burns, 1978). The predominant explanation is that misinformation is a result of source monitoring errors due to confusion between the original memory trace and the more recent post-event information (Johnson et al., 1993). Witnesses with stronger memories are typically found to be less suggestible to false information than those with weaker memories (Ceci, Toglia, & Ross, 1988; Henry & Gudjonsson, 2004; Holliday, Douglas, & Hayes, 1999; Holliday, Reyna, & Hayes, 2002; Loftus, 2005; Marche, 1999; Pezdek & Roe, 1995), and better able to identify the source of their memories (Crawley, Newcombe, & Bingman, 2010; Pezdek & Roe, 1995; Thierry & Spence, 2002; Thierry, Spence, & Memon, 2001). Increasing memory trace strength could therefore reduce suggestibility, increasing cross-examination accuracy (Pezdek & Roe (1995).

In response to cues in an interviewer's question, tone or body language, witnesses who are susceptible to interrogative suggestibility try to give the answer they think the person wants to hear (Gabbert & Hope, 2013). This is demonstrated in its most extreme form in some police interrogative interviews where false confessions can often be made if extreme questioning tactics are used (Davis & Leo, 2013). Although cross-examination interviews are unlikely to go to the extremes of a police interrogation, practitioners do employ persuasive tactics during cross-examination which can result in immediate changes to a witness testimony (Zajac et al., 2003; Zajac & Hayne, 2006).

Social pressure can be as subtle as repeating a question. Repeating a question can cause a witness to change their testimony, the inference being that the interviewer didn't like the first response, or knew the first response to be incorrect (Cassel et al., 1996; Ceci & Bruck, 1995a; Krähenbühl & Blades, 2006b; La Rooy & Lamb, 2011; Memon & Vartoukian, 1996; O'Neill & Zajac, 2013; D. A. Poole & White, 1991).

2.3.3 Factors Influencing Victim and Witness Cooperation

Citizen cooperation plays a crucial role in the functioning of the criminal justice system. From the reporting of crimes to the discovery of evidence to testifying in the courtroom, victims and witnesses are essential to the eventual clearance of a crime (Cook and Fischer, 1976). Cooperation may vary based on the demographics of the victim or witness, and those in a more disadvantaged position in society may be less likely to assist in a police investigation due to an inherent distrust in the criminal justice system (Litwin 2004, Riedel, 1999).

modest) of the expert for the defendant was manipulated. Interestingly, credentials only affected juror decisions for highly paid experts: Experts with high pay but modest credentials sided with the plaintiff while experts with high pay and high credentials did not side with his client. Jurors did not like or believe these "hired guns" and may actually discredit their testimony (Cooper & Neuhaus, 2000).

The timing of expert testimony may affect juror decision making differentially. Leippe, Eisenstadt, Rauch, and Seib (2004) compared expert testimony provided before evidence to that which followed evidence in a murder trial. The evidence included testimony from an eyewitness. Eyewitness believability and jurors' perception of defendant guilt both decreased if jurors read the expert testimony after evidence presentation. Jurors were more likely to find

2.3.4 Personal Characteristics

Morris (1974) and Ntarangwi (2003) argue that Witnesses differ depending on personal characteristics such *as* age and gender. For example, older witnesses display behavior that is dependable, organized, careful and thoughtful, with great attention to detail than younger witnesses, hence their level of cooperation is higher during trial of criminal cases. The two personal characteristics, they said affect the level of self-efficacy as explained below;

***Age*:** Napoleon (2004) observes that younger witnesses are less likely to participate during trial due to language barrier which has been identified as a primary manipulative tool at the disposal of lawyers in court, especially in the context of cross examination. For example, the use of sophisticated language to children such as complex grammatical constructions in court, or use of interrogative technique that makes little reference to their linguistic capacity, combine to intimidate or bully younger witnesses lending to non-cooperation by such witnesses. This scenario badly affects the dispensation of criminal justice by denying the courts, crucial evidence that is needed in the process of justice delivery. Other research also shows that witness accuracy declines with age. Young witnesses - ranging from nineteen to twenty-four years old - were more accurate when viewing target-absent lineups than older witnesses -ranging from sixty-eight to seventy-four years old(Pozzulo and Lindsay, 1996).

***Gender*:** Ntarangwi (2003) postulates that though both male and female witnesses equally volunteered to give information to the police, their degree of cooperation with the Criminal Justice System (CJS) differs especially during the trial phase. The confrontational nature of the adversarial trial process und intimidation of witnesses by defendants scares away most female witnesses than men. According to Muncic (2005) men elicit more respect than women at the time of witnessing, irrespective of age, years of experience, method of practice, and field of practice. This perception discouraged witnesses who were just acting voluntarily to further the public good by ensuring justice is done.

2.3.5 Effectiveness and reliability of expert witness

A "trial judge must ensure that any and all scientific testimony or evidence admitted is not only relevant, but reliable." Judges and magistrates determine reliability by assessing the scientific foundation of the expert's testimony prior to trial, so that "*evidentiary reliability* will be based upon *scientific validity*." Trial courts remain divided on whether expert testimony on eyewitness identifications is admissible and on the proper exercise of trial court discretion

when deciding whether to admit such expert testimony. A trial judge should use discretion when deciding whether proffered expert evidence satisfies the standards. An increasing number of rulings emphasize the value of presenting expert testimony regarding eyewitness identification. Some courts have held that it can be an abuse of discretion for a trial judge to bar the defense from admitting such testimony.

Detailed descriptions of the relevant scientific research findings accompany such decisions. There are also many federal and state courts that continue to follow the traditional approach, emphasizing that credibility of eyewitnesses is a matter within the "province of the jury" and insisting that information regarding valid scientific research in this area will not assist the jury in its task. A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if: (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue; (b) the testimony is based on sufficient facts or data; (c) the testimony is the product of reliable principles and methods; and (d) the expert has reliably applied the principles and methods to the facts of the case. The trend is toward greater acceptance of expert testimony regarding the factors that may affect eyewitness identification.

Often, the credibility of a particular eyewitness witness is bolstered by corroborative evidence. Expert witness testimony can be highly influential in juror decision-making. Traditionally, however, courts have been reluctant to admit scientific or expert testimony that directly addresses the issue of the credibility of a particular witness or that of a defendant who chooses to testify in his own behalf. However, unlike a lay eyewitness, an expert witness testifies on a technical aspect of the crime that requires explanation or a knowledgeable expert's opinion (Lempert et al., 2013; Nemeth, 2010).

Expert witnesses usually include forensic technicians, medical professionals, psychologists, psychiatrists, economists, etc. Expert witnesses are also allowed to speculate on the case in a way that is not permitted for any other type of witness (Lempert et al., 2013; Nemeth, 2010). Courts frequently allow expert testimony to explain phenomena considered "beyond the ken" of the average person so as to address the memory misconceptions of jurors. There are several types of expert testimony but the testimony of interest in cases with eyewitness testimony is from psychologists or scientists with memory expertise. These experts are commonly retained by the defense (and occasionally by prosecutors) to evaluate eyewitness reliability.

During this type of testimony, the expert is only expected to explain eyewitness memory-related phenomena to jurors and not expected to offer ultimate opinions on the accuracy of an eyewitness‟ memory. If a judge allows an expert to testify, the expert is to address scientific research related to the case in order to raise awareness of, or clarify, specific information for jurors. The expert cannot opine regarding the credibility of an eyewitness and should merely identify factors that may influence eyewitness memory and testimony.

Expert witnesses who are brought in to explain the evidence to jurors often leave the physical evidence in a case open to interpretation. Therefore, jurors will put more weight in the testimony of the expert witness and his/her interpretation of the evidence than the physical evidence alone (Leippe, 1994). Jurors commonly view the testimony of expert witnesses as factual simply because experts are perceived as authorities on the subject in question (Boccaccini & Brodsky, 2002; Leippe, 1994).

The degree to which jurors trust the testimony of an expert witness is established differently than that of a lay witness. The most important factor in the appraisal of expert witness credibility for jurors is the expert witness' professional credentials (Boccaccini & Brodsky, 2002; Brewer, 1998; Champagne, Shuman, & Whitaker 1992; Goodman, Greene, & Loftus, 1985; Kassin et al., 1990; Shuman, Whitaker, & Champagne, 1994). Professional degrees, titles, training, experience, knowledge, positions, and other professional accomplishments are all important considerations in assessing the credibility of an expert witness (Champagne et al., 1992; Goodman et al., 1985; Kassin et al., 1990; Shuman et al., 1994).

Jurors perceive an expert witness with poor professional credentials less credible than a witness with good professional credentials. In some cases, jurors have been known to consider professional credentials a more important factor in their verdict decision than the actual information presented by the expert witness about the evidence/case. For example, Goodman and colleagues (1985) found that jurors relied on their personal perceptions of the expert witness based on his/her outstanding credentials in the field instead of the information he/she presented at trial in making their decision.

Jurors also take professional reputation into consideration in weighing the credibility of an expert witness. For example, Kassin and colleagues (1990) found that mock jurors presented with an expert witness with a poor professional reputation rated the witness significantly less credible than those presented with an expert witness with a good professional reputation.

Having a poor professional reputation likely invalidates any professional credentials that would lend credibility to the witness as an expert in the field/subject. A poor reputation may also raise concerns among jurors about the character of the witness, similarly to that of lay witnesses. If a witness is deemed to be of poor character, the veracity of his/her testimony is also more likely to be called into question (Nadler & McDonnell, 2012).

While expert testimony is commonly permitted in courts, some prosecutors argue expert testimony regarding eyewitness memory contains nothing more than common sense knowledge, or that memory expert testimony makes it impossible to convict due to increased skepticism (McClosky & Egeth, 1983a). Memory researchers have examined the use of expert testimony on juror decision making with mixed results. Loftus (1980) discovered merit in expert testimony in criminal court cases with an eyewitness‟ testimony: jurors were somewhat, though not significantly, less likely to convict when expert testimony was included in a mock trial, especially in violent crimes. Loftus hypothesized jurors were more thoughtful regarding eyewitness memory after expert testimony. Expert testimony did not lower conviction rates such that jurors would completely disregard not guilty verdicts; instead, jurors had additional information about the memory process and were more able to think critically about the eyewitness testimony.

Hosch, Beck, and McIntyre (1980) also found jurors in cases with expert testimony were more likely to discuss relevant, non-eyewitness related information during deliberation, in addition to the eyewitness‟ testimony itself. Mock jurors listened to a burglary trial that included an eyewitness to the crime. Half of the jurors also heard expert testimony. Jurors were more likely to scrutinize the case evidence when expert testimony was involved, although expert testimony did not affect verdicts: All juries acquitted the defendant. Cutler, Penrod, and Dexter (1989) also found jurors provided expert testimony paid more attention to conditions of the crime (which are known to influence eyewitness identifications and memory) and conditions surrounding the identification than those who did not hear expert testimony. Cutler, et al, (1989) indicated that jurors who listened to expert testimony did not have increased skepticism of eyewitness evidence.

McAuliff and Kovera (2006) discovered jurors were likely to believe expert testimony was beneficial, due to their lack of knowledge of witness suggestibility. Expert testimony may be beneficial in aiding jurors, but it also may make convictions more difficult by increasing skepticism of the accuracy of memory (Wells, 1986). Wells, Lindsay, and Tousignant (1980)

presented half of the mock jurors with expert testimony and the other half with no expert testimony before both groups viewed eyewitness testimony (accurate or inaccurate). They found mock jurors were unable to distinguish between accurate and inaccurate eyewitness testimony, even with the aid of expert testimony. However, those who listened to expert testimony were more likely to discount the testimony of the eyewitness.

Some jurors believe experts to be "hired guns," and as such, will say anything for money. Cooper and Neuhaus (2000) investigated the "hired gun" effect, if it exists, on juror decision making. Jurors listened to a mock trial to determine whether a chemical the plaintiff was exposed to at work primarily caused his colon cancer. The mock trial included expert witnesses hired by the defense and prosecution. The pay (high or reasonable) and credentials (high or modest) of the expert for the defendant was manipulated. Interestingly, credentials only affected juror decisions for highly paid experts: Experts with high pay but modest credentials sided with the plaintiff while experts with high pay and high credentials did not side with his client. Jurors did not like or believe these "hired guns" and may actually discredit their testimony (Cooper & Neuhaus, 2000).

The timing of expert testimony may affect juror decision making differentially. Leippe, Eisenstadt, Rauch, and Seib (2004) compared expert testimony provided before evidence to that which followed evidence in a murder trial. The evidence included testimony from an eyewitness. Eyewitness believability and jurors' perception of defendant guilt both decreased if jurors read the expert testimony after evidence presentation. Jurors were more likely to find the defendant not guilty if the expert testimony followed the evidence than if the expert testimony preceded it. The type of expert testimony may also play a role in its effectiveness.

Kovera, Gresham, Borgida, Gray, and Regan (1997) reported a beneficial effect of expert testimony that explicitly linked scientific research evidence to the crime (called "concrete" testimony) than expert testimony that lacked these links. Jurors, when given a choice, may prefer expert testimony during a trial to help with criminal justice or memory issues they are not confident in their own knowledge about. When expert psychologists, jurors, and jury-eligible students were asked to estimate the effects of witness suggestibility methods, non-psychologists largely underestimated the effects of witness suggestibility (McAuliff & Kovera, 2006).

McCloskey and Egeth (1983b) further stated that a good defense attorney covers factors influencing eyewitness memory, such as duration of crime, dark lighting, stress, weapon focus, and own-race bias; and therefore expert testimony is unnecessary. The beneficial effects of expert testimony can be inconsistent. Jurors may have a hard time processing the scientific information given in expert testimony, may discredit highly paid experts, or may not even need expert testimony in the courtroom.

Benton and colleagues (2006) reported that 32% of states do not admit expert testimony in their courts, 42% allow for the possibility of expert testimony in their courts, and only about 25% generally accept expert testimony, though only usually if the case against the defendant is weak (i.e., without corroborating evidence). Recently, fear of overvaluation of expert testimony by

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jurors in relation to tangible evidence presented in trial has led to many jurisdictions to restrict expert testimony (Schauer & Spellman, 2013).

2.3.6 Impact of fear on eyewitness testimony during interrogation, including Cognitive Interviewing Techniques (C.I.T)

When a crime occurs, police take as their primary goals solving the crime and apprehending the criminal. Police try to elicit as much information as possible from victims and witnesses, as their testimony is considered to be the best predictor of solving crimes (Berresheim & Weber, 2003; George & Clifford, 1992; Kebbell & Milne, 1998; Kebbell & Wagstaff, 1997).

According to Cook and Fischer (1976) citizen cooperation plays a crucial role in the functioning of the criminal justice system. From the reporting of crimes to the discovery of evidence to testifying in the courtroom, victims and witnesses are essential to the eventual clearance of a crime. Indeed, the relationship between cooperation and clearance is well documented. Witness cooperation is essential to compiling the necessary evidence to arrest a suspect (Armstrong, Plecas, and Cohen 2013).

Cooperation may vary based on the demographics of the victim or witness, and those in a more disadvantaged position in society may be less likely to assist in a police investigation due to an inherent distrust in the criminal justice system (Litwin 2004, Riedel, 1999). Similarly, the level of witness cooperation is significantly less in gang-related cases, potentially due to the fear of retaliation (Armstrong, Plecas, and Cohen, 2013).

Indeed, perhaps the greatest barrier to victim and witness cooperation is victim intimidation. Fear of retaliation in certain communities is a major deterrent to cooperation with law enforcement officials (Riedel, 1999). In particular, victim and witness intimidation appears to be especially pervasive amongst organized crime and domestic violence cases (Healey, 1995). Schiff (2007) observed that offenders can create a general atmosphere of fear and non-cooperation with the Criminal Justice System such that while victims and witnesses of crime in the community may not be threatened directly, their fear of reprisals is such that they are discouraged from reporting crime and/or from giving evidence.

Other scholars have also observed that, experiencing intimidation reduces the likelihood that citizens will engage with the criminal justice system, both in the instant offense and in the future (Davis, Smith and Henley, 1990; Buzawa and Buzawa, 1996; Comparet-Casani, 2002).

Fyfe (2001) opined that, while most intimidation is neither violent nor life-threatening, even a perception that reprisals are likely to be distressing and disruptive to witnesses' cooperation.

2.3.7 The Cognitive Interview

The cognitive interview (CI) was developed to avoid memory distortion and elicit accurate information from witnesses. An important basis of the cognitive interview is to avoid leading questions and minimize use of closed questions (Holliday, Brainerd, Reyna & Humphries, 2009).

CI cognitive techniques are draw upon the theoretical principle that there are several retrieval paths to memory for an event and information not accessible with one technique may be accessible with another (Tulving, 1974). Therefore, CI comprised several memory retrieval techniques together with some supplementary techniques for recalling specific details (Geiselman, 1994). The elements of the CI are organized around three basic psychological processes: cognition, social dynamics, and communication (Fisher & Geiselman, 1992).

Cognition

Two limiting factors in any criminal investigation are the witness's ability to retrieve information about the crime, and both the witness's and the interviewer's ability to perform many cognitive tasks at the same time, e.g., the interviewer must listen to the witness's response while formulating the next question and notating the witness's answer.

Context Reinstatement: One of the main CI techniques is mentally to reconstruct the physical and personal contexts that existed at the time of the witnessed event. This is based upon the assumption that context reinstatement increases the accessibility of stored information (Tulving & Thomson's Encoding Specificity Hypothesis, 1973). Memory retrieval is most efficient when the context of the original event is recreated at the time of recall (Tulving & Thomson, 1973).

Witnesses should therefore be instructed to mentally recreate their physiological, cognitive and emotional states that existed at the time of the original event. Context reinstatement may also be therapeutically valuable during the narration of traumatic memories (Shepherd, Mortimer, Turner, & Watson, 1999). Interviewers should therefore allow and even encourage victims to

describe their emotions while narrating the factual portion of their testimony (Pennebaker, 1990; Winick, in press).

It is suspected that police interviewers may often discourage victims from describing their emotions because (a) the emotions are not directly related to the factual evidence that police investigators seek, and police do not want to "waste their time" on "irrelevant" information, and (b) the police interviewers themselves become upset when observing victims give voice to their negative emotional experiences. If police interviewers were more aware of the cathartic value of victims voicing their emotional experiences, perhaps police would be more receptive to allowing victims to incorporate their emotional reactions within their narrative of the crime details.

If victims do become highly emotional during the interview, they should be empowered to stop the interview process when they wish, but it is generally recommended that the interview not be terminated unilaterally by the interviewer. This is because interrupting or stopping the interview may be experienced by the victim as patronizing and denying an opportunity to testify. Instead, possible empathetic responses and supportive comments are recommended (Cote & Simpson, 2000).

Limited Mental Resources: People have only limited mental resources to process information (Baddeley, 1986; Kahneman, 1973), and especially if they are in a highly aroused state. For instance, witnesses may have limited ability to understand interviewers' questions and instructions, while the witnesses are concurrently searching through memory. Interviewers can minimize overloading witnesses by refraining from asking questions while witnesses are searching through memory and in general by asking fewer, but more open-ended, questions. Witnesses also should be allowed to close their eyes before responding, as that is known to enhance concentration, presumably by reducing visual interference (Perfect, Wagstaff, Moore, Andrews, Cleveland, Newcombe, Brisbane, & Brown, 2008). Requesting witnesses, and especially victims, to close their eyes during the interview should be done only after having developed adequate rapport, and after witnesses feel comfortable with the interviewer.

Witness-compatible questioning: Each victim's mental record of an event is unique. Some victims may have focused on the perpetrator's face, whereas others may have focused on the weapon. Interviewers should tailor their questions to each particular victim's mental record instead of asking all victims the same set of questions and in the same order. Interviewers often

violate this rule by using a standardized checklist to guide their questioning of all victims (Fisher

et al., 1987) or by constructing a fixed set of questions to ask before the interview has begun and then using those pre-interview questions blindly, even if they are inappropriate for the particular victim.

During the course of an interview, event details will vary in accessibility. Memory for the weapon, for instance, should be more accessible when the victim is thinking about when she/he first saw the weapon than when she/he is focusing on the assailant's face. In general, event details will be most accessible when they are perceptually related to the victim's current mental image (Pecher, Zeelenberg, & Barsalou, 2003).

Interviewers therefore should be sensitive to the victim's currently active mental image, so as to time their questions efficiently. This may require interviewers to defer asking questions about specific details until later in the interview, when the questions are compatible with the victim's current mental image. For instance, if the interviewer needs to learn about the rapist's knife, but the victim is currently thinking about the rapist's odor, then the interviewer should defer asking about the knife until the victim is through with thinking about the knife.

Witness-compatible questioning is probably the most difficult aspect of the CI to learn, as it requires the interviewer to defer to the victim and to be aware of the victim's changing thoughts during the course of the interview. Sensitivity to the victim's thoughts, however, should make the task easier for the victim, and in the process also confer more control to the victim, since her/his thoughts will direct the course of the interview rather than be subjugated to the interviewer's needs. Structuring the interview around the victim's recollections, rather than proceeding in a predetermined sequence, should also confer a sense of dignity to the victim, as it makes clear that the interviewer is listening to the victim and that the victim plays a more central role in the interview process.

Multiple Retrieval: The more often people search through their memories about an event, the more new details they will recall. Interviewers can enhance witness recollection by asking witnesses to describe the critical event several times within the interview, and interviewing them more than once. Interviewers should make use of the fact that victims will continue to think about the crime even after the interview has terminated and thereby recall new details by contacting the victim after the interview to learn about any such post-interview recollections

and to inquire about the victim's emotional health. Such a post-interview follow-up should help to reassure the victim of the interviewer's concern about the victim as a person and not merely as a fact generator, which should help contribute toward the victim's perceived dignity. These post-interview contacts are particularly important to combat victims' feelings of isolation, and especially for victims who do not have well-formed social networks to rely on.

Accuracy of Responding: Witnesses will recall more accurately if they communicate only those collections they are certain of and refrain from guessing (Koriat & Goldsmith, 1996). Interviewers should therefore explicitly instruct witnesses not to guess, but, instead, to indicate that they "don't know." Similarly, interviewers should refrain from applying social pressure on witnesses or otherwise encouraging them to answer questions they are uncertain of. These principles are particularly important when interviewing children, who may defer to an adult interviewer's authority.

Recall accuracy is also influenced by the question format: Responses to open-ended requests (e.g., Describe the rapist's appearance) are more accurate than to closed questions (e.g., Did the rapist have dark or light hair?). An over-riding principle of the CI then is to conduct the interview primarily by asking open-ended questions. Closed questions should be used only sparingly, when witnesses do not provide a complete response to the open-ended question. A second benefit of asking primarily open-ended questions is that they typically elicit longer, richer, narrative responses than the abbreviated responses to closed questions. Such long narrative responses should also foster a sense of control as they allow victims to tell their own story.

Minimizing constructive recall: At times, memory is a constructive process, whereby the witness incorporates information from other (non-crime) sources to reconstruct the crime episode

(Bartlett, 1932; Bransford & Franks, 1971; Loftus & Palmer, 1974). For instance, witnesses might incorporate knowledge gathered from speaking with other witnesses or watching television to supplement their memory of the crime. Practically, witnesses cannot be restricted from speaking to one another or from being exposed to the media. Of greater concern, witnesses may acquire information from the interviewer (Ceci & Bruck, 1995). Interviewers should therefore monitor themselves to avoid leaking information to witnesses either non-

verbally (e.g., showing increased attention to specific witness statements) or verbally (asking leading or suggestive questions).

Social Dynamics

Witnesses and interviewers do not function in isolation but as a dynamic social unit, where each person's behavior is influenced by the other. For the interview to be successful the two members must co-ordinate their roles effectively and each must be sensitive to the other's concern.

Developing rapport and personal concern: Victims are often asked to give detailed descriptions of intimate, personal experiences to police officers, who are complete strangers. Victims must be psychologically comfortable with the interviewer *as a person* to go through the mental effort and emotional distress of describing crime-related details. Police interviewers must therefore invest time at the outset of the interview to develop meaningful, personal rapport with the witness (Collins, Lincoln & Frank, 2002), a feature often absent in police interviews (Fisher et al., 1987).Furthermore, the interviewer must interact with the victim not merely as a source of evidence that can be applied toward solving the crime. Rather, the interviewer must feel and express his/her concern about the victim's plight, as a person who has undergone a potentially life alteringexperience.

Active witness participation: The witness has more knowledge about the crime details than does the interviewer. Therefore the witness, and not the interviewer, should be doing most of the mental work during the interview. In practice, however, just the opposite occurs: Witnesses sit passively waiting for interviewers to ask questions and interviewers actively formulate and ask questions (Fisher et al., 1987). This role reversal occurs for at least two reasons.

Witnesses expect that the police interviewer, who has more social status than they, will dominate the interview, and so they defer to the police officer's authority and allow him/her to control the interview. Second, police interviewers typically ask many short-answer questions that require only brief answer. To compound the problem, police interviewers often discourage witnesses from taking an active role by interrupting them in the middle of a narrative response. Interviewers can create a more appropriate social environment in which the witness takes the more active role by:

(a) Explicitly instructing the witness about his/her role in the interview and by previewing the general tone of the interview.

(b) Asking open-ended questions and (c) not interrupting witnesses during their narrative responses.

Unburdening the Victim: Witnesses, and especially victims, may feel that they were partially responsible for the crime, witnesses because they did not intervene and victims because they may have placed themselves in compromising situations. Such counter-factual thinking (What would have happened had I done ….?) is common, but not productive or healthy. Nevertheless, interviewers must deal effectively with any feelings of inadequacy that may arise, and especially with victims. If victims hint at such thoughts, interviewers need to assure them that it is the perpetrator's behavior that is in question, not the victim's. Second, interviewers must guard against inducing such feelings of inadequacy by not making judgmental comments. Negative questioning may reinforce the victim's sense of inadequacy.

Communication

Interviewers must communicate their professional, investigative needs to the witness, and, in turn, witnesses must communicate their knowledge of the crime to the interviewer. Ineffective communication will lead witnesses to withhold valuable information or to provide irrelevant, imprecise or incorrect answers.

Promoting extensive, detailed responses: To minimize witnesses' withholding information, interviewers should instruct them to report everything they think about, whether it is trivial, out of chronological order, or even if it contradicts a statement made earlier. If contradictions arise within a witness's testimony, interviewers should wait until later in the interview to resolve the contradictions. Some researchers have mistakenly interpreted the "report everything" instruction to mean that witnesses should guess if unsure (Memon, Wark, Bull, & Koehnken, 1997).

Non-verbal Output: Interviewers and respondents often use only the verbal medium to communicate. Some people, however, can express themselves more effectively non-verbally, and some events are easier to describe non-verbally (Leibowitz, Guzy, Peterson, & Blake, 1993). Ideally the response format should be compatible with the witness's mental record of

the event, thereby minimizing the need to transform the mental record into an overt response (Greenwald, 1970).

2.4 Theoretical Framework

The study will be guided by the following theories; Bartlett's Theory of Reconstructive Memory and Fuzzy Trace Theory.

2.4.1 Bartlett's Theory of Reconstructive Memory

The theory proposes that memory is in certainty a functioning procedure demonstrating that we arrange our recollections as per our past encounters or patterns we make about specific circumstances (Bartlett, 1932). Diagrams are mental 'units' of learning that relate to every now and again experienced individuals, articles or circumstances. They enable us to understand what we experience all together that we can anticipate what will occur and what we ought to do in some random circumstance. These diagrams may, to some degree, be controlled by social qualities and in this manner bias. Patterns are in this way fit for contorting new or unwittingly 'unsuitable' data with the end goal to 'fit in' with our current information or outlines. This can, thusly, result in questionable eyewitness testimony.

Bartlett (1932) suggests that when we are compelled to recall occasions, holes in our memory are recreated dependent on our past schemas. His exploration discovered that when members were requested to review a story that they had all already been recounted parts of the story changed. For instance the story wound up shorter, members' would in general spotlight on a specific part of the story and underline its hugeness or they sifted through parts of the story that they accepted didn't appear to be pertinent to them. The reproduction contrasted in a significant number of the members, recommending that onlooker testimony can't be totally solid, as the recollections reproduced were changed because of member's past plans.

Bartlett's theory of reconstructive memory is urgent to a comprehension of the reliability of eyewitness testimony as he proposed that review is liable to individual translation dependent on our scholarly or social standards and values, and the manner in which we comprehend our reality. The utilization of onlookers in court can't be considered as dependable as people can encounter a similar circumstance yet when requested to review the circumstance their recollections are totally unique. Despite the fact that the utilization of onlooker can help bolster a court case they ought not to be the main wellspring of proof.

2.4.2 Fuzzy Trace Theory

The theory makes a distinction between two kinds of memory representations, verbatim and gist (Reyna & Brainerd, 2011). It specifically describes how these processes change with development, expertise, and social context (Wilhelms, Corbin, & Reyna, 2014). Unlike other dual-process accounts of reasoning, FTT distinguishes intuition from impulsivity, and predicts that deliberative analytic reasoning is a frequent route to risk-taking, especially in adolescence (Reyna, Chapman, Dougherty, & Confrey, 2012). This theory is based on four foundational principles (Rivers, Reyna, & Mills, 2008).

The first principle is the proposition that information is encoded with varying levels of precision in multiple representations. These representations form a hierarchy from verbatim to gist, with verbatim representations preserving surface form and low-level details on one end of the continuum, and gist representations preserving the essential meaning at the other end. This continuum is roughly analogous to scales of measurement, with distinctions between exact numerical values, ordinal, and categorical distinctions.

The second principle on which this theory is based is that both gist and verbatim representations are encoded, stored, and retrieved independently and in parallel. Because these representations are processed independently (Reyna & Brainerd, 2011), it is possible for people to have distinct and even contradictory representations of the same experience or information. For example, this independence has been supported by research that reveals that accuracy of memory for frequencies (a verbatim representation) is independent of accuracy of reasoning in probability judgments (Reyna, 2012a). Additionally, this independence allows for paradoxical effects in which risk judgments can differentially correlate either positively or negatively with risk taking, depending on whether the question cues either verbatim or gist representations (Mills, Reyna, & Estrada, 2008, Reyna et al., 2011).

Third, FTT posits that adults exhibit a "fuzzy processing preference," meaning that they tend to rely on the simplest gist necessary to complete a task. This preference has been used to explain other effects and biases, including the risky choice framing task (Kühberger & Tanner, 2010). Manipulating the common risky choice framing task to remove redundant information can differentially emphasize or deemphasize the meaningful (gist-based) distinctions between the two options, resulting in an increase or decrease in the framing effect, respectively.

The final principle on which FTT is based is that there is an increase of the preference for reliance on gist representations with age and expertise (Reyna, Lloyd, & Brainerd, 2003; Wilhelms et al., 2014). From this principle, FTT introduces testable predictions which are in contrast to traditional dual-process theories that describe development as a progression from mainly emotional or mainly heuristic processing to deliberative and analytic processing (e.g., Evans & Stanovich, 2013).

Among the findings supporting this principle are developmental reversals, or the increases of predicted biases and errors with age. These developmental reversals can be found in gist-based errors such as framing effects and spontaneous false memories, both of which increase with age (Reyna et al., 2014).

2.5 Theoretical framework

Bartlett's Theory of Reconstructive Memory (Bartlett, 1932)

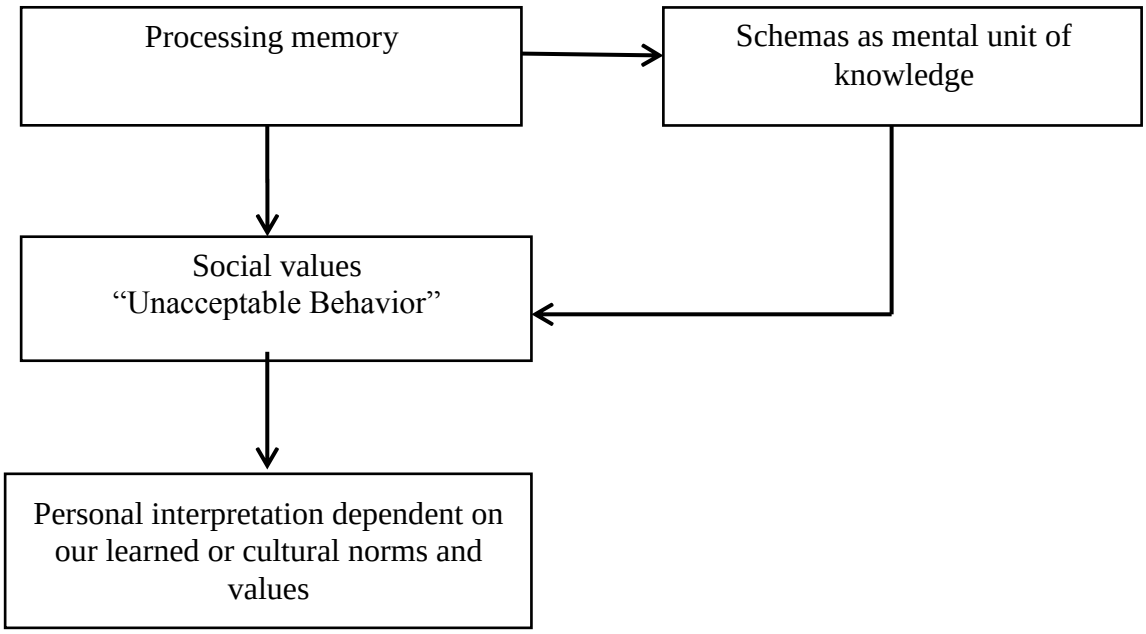


Figure 1: Bartlett's Theory of Reconstructive Memory

The theory suggests that memory is an active process indicating that we organize our memories in accordance with our previous experiences or schemas we create about a certain situation.

When one is forced to remember events, gaps in our memory is reconstructed based on the previous schemas.

Fuzzy Trace Theory (Wilhelms, Corbin &Reyna, 2014)

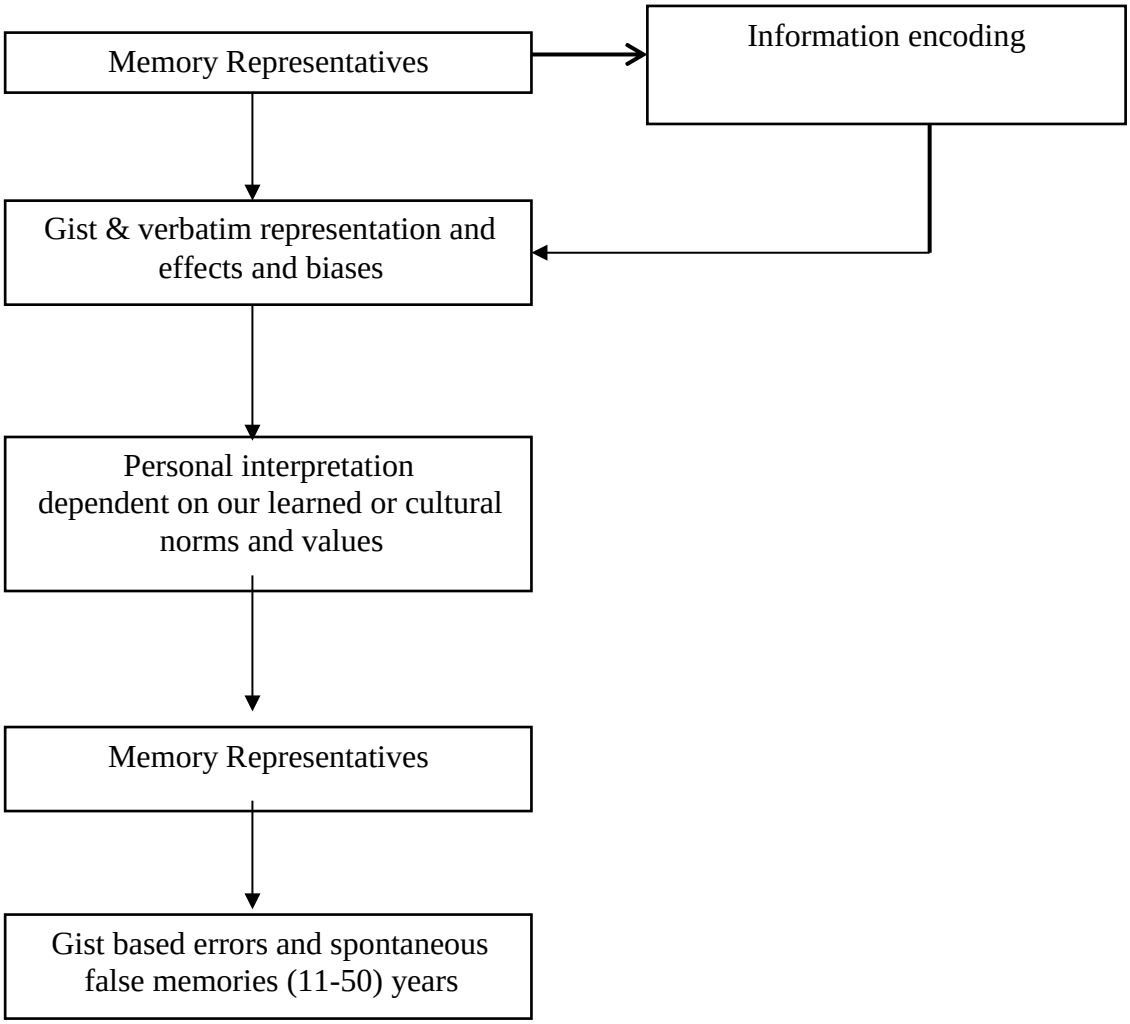


Figure 2: Fuzzy Trace Theory

Gist- the real point of an action (general meaning)

Verbatim-in exactly the same words as we used originally

1st Principle – the information is encoded with varying levels of precision in multiple representations.

2nd Principle- both gist and verbatim representation are encoded , stored and retrieved independently and in parallel, thus same representation contradicted or can be interpreted differently by different people.

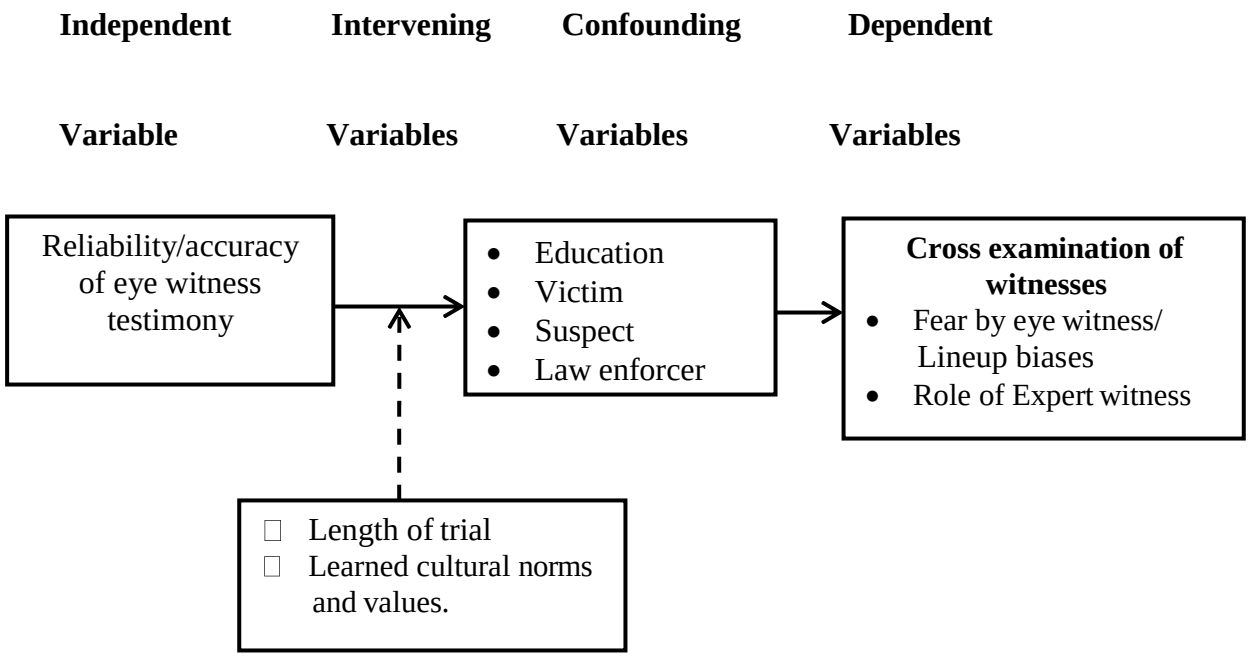
3rd Principle – "fuzzy processing preference" tends to rely more on the simplest gist to complete a task whether biased or risky.

4th Principle- there is an increase of the preference for reliance on gist representation with age and expertise.

2.6 Conceptual Framework

Conceptual Framework is the consequence of what a specialist conceptualizes as the connection between variables in the examination and demonstrates the relationship graphically or diagrammatically (Mugenda and Mugenda 2003). A conceptual definition is a component of the logical research process in which a particular idea is characterized as a quantifiable event or in quantifiable terms; essentially gives one the significance of the idea (Mugenda, 2008).

Many factors affect eyewitness accuracy. Some factors are related to protocols within the law enforcement and legal systems, while others are related to characteristics associated with the crime scene, perpetrator, and witness. System variables are those that the criminal justice system can influence through the enforcement of standards and through education and training of law enforcement personnel in the use of best practices2 and procedures (e.g., by specifying the content and nature of instructions given to witnesses prior to a lineup identification). Estimator variables are factors that can affect the accuracy of eyewitness identifications but that are outside of the control of the criminal justice system. Suboptimal estimator variables (e.g., long distance) have long been thought to reduce the reliability of eyewitness identifications (IDs), but recent evidence suggests that this is not true of IDs made with high confidence and may or may not be true of IDs made with lower confidence. The evidence suggests that while suboptimal estimator variables decrease discriminability (i.e., the ability to distinguish innocent from guilty suspects), they do not decrease the reliability of IDs made with high confidence. The relationship between different variables in this research is presented graphically in the conceptual framework as shown below.



Independent variable: This variable is never affected by anything the researcher does. Independent variables are those variables which are methodically shifted by the specialist.

Intervening variables: These are variables used to explain the relationship between variables. In this study they include length of trial, learned cultural, norms and values.

Cofounding/estimator variables: These are extra variables that have a hidden effect on the results. In this study cofounding variable include eyewitness competency and education, victim and suspect and law enforcer. Eyewitness competency, according to Graham (2003), require that a) the witness had the physical and mental capacity to perceive and recollect the facts, b) the witness did in fact perceive, record, and can recollect the facts, c) the witness takes an oath or affirmation stating that he will tell the truth, and has the mental capacity to understand the difference between the truth and a lie and to understand the duty to tell the truth, and d) the witness has the physical and mental capacity to express himself and understand questions. Other examples include (1) the duration of exposure to the perpetrator, (2) the passage of time between the crime and the identification (retention interval), (3) the distance between the witness and the perpetrator at the time of the crime.

Dependent/system variables: Dependent variable is the outcome of an effect. In this study Dependent variable include cross examination of witnesses, fear by eye witness and role of expert witness. Then again, dependent variables are those variables whose qualities are ventured to rely upon the impacts of the independent variables. External factors, such as and lineup biases, suggestive questioning during cross-examination affect the degree of certainty in one's decision, and this, in turn, affects the accuracy in the identification process. As the independent changes, dependent variable will also change significantly.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introductions

The main objective of the study was to explore the significance of the effects of reliability of eyewitness testimony during investigations and trial process for adult and pre-adult witnesses. This chapter describes the research methodology applied, criteria for sample selection, procedure used in designing research instruments and consequently data collection. This method also described statistical procedures applied in the final data analysis.

3.2 Research Design

The methodology was suitable because the study adopts a descriptive research design. This design refers to using both aspects of descriptive research and exploratory research designs. Descriptive research designs aim to discover the conditions that are present and occurring, trends and ongoing processes and practices that are held (Ngechu, 2010).

A study that adopts the exploratory research often looks for persons that are knowledgeable about a process or topic under study. The researcher believes that combining these two research designs enhanced the validity and reliability of the study. Qualitative approach on the other hand refers to gathering information that is based on personal experiences and provides in-depth information through personal stories and experiences of the respondents. Qualitative approach therefore, necessitated the visits to Milimani Law courts for the key informant interviews with professional from the justice system (Prosecutor, defense attorneys and the police officers) greatly enabling the researcher get answer to the research questions by collecting data from individual expert with relevant personal professional experiences in the justice system. Their direct perspective gave a unique insight for understanding the justice system, the main challenges and the actual situation inside the criminal justice system in Kenya.

The study has been carried out using two types of data collection methods: primary and secondary data. Primary data was collected by the researcher through qualitative instruments, and face to face Key informant interviews. Secondary data was gathered from desk review of the legal framework, statistics, reports from state and non-state actors who work in the criminal

justice system in Kenya, and other relevant literature. The methodology was suitable to the study because the primary data was later triangulated and corroborated by the review of the literature on determinant of eyewitness testimony credibility.

According to Sturman (1997), "[a] case study is a general term for the exploration of an individual, group or phenomenon" (ibid., p. 61). Therefore, a case study is a comprehensive description of an individual case and its analysis; i.e., the characterization of the case and the events, as well as a description of the discovery process of these features that is the process of research itself (Mesec 1998, p. 45). A case study "is a description and analysis of an individual matter or case [...] with the purpose to identify variables, structures, forms and orders of interaction between the participants in the situation (theoretical purpose), or, in order to assess the performance of work or progress in development (practical purpose)" (ibid., p. 383). He adds that one case study could serve both purposes at the same time. Following these definition of a case study, this research adopted a mixed method approach to collect both qualitative and quantitative data to enable the researcher to explore the impact of investigative procedures and convictions in the criminal justice in Kenya in relation to adults and pre-adult witnesses. Because mixed-methods research represents a middle ground between quantitative and qualitative methodology, it "combines elements of qualitative and quantitative research approaches (e.g., use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for the broad purposes of breadth and depth of understanding and corroboration" (Johnson et al., 2007). Johnson et al (2007) as cited in the Creswell & Clark (2011) defined mixed method research as a type of research whereby the researcher uses a blend of both qualitative and quantitative designs to achieve in-depth understanding and corroboration of a topic. According to Creswell & Clark (2011, p.12) mixed method approach provides the strength that offsets the weaknesses of both quantitative and qualitative research."

Data collected by qualitative approach was helpful in examining the challenges eyewitnesses, both adults and pre-adults undergo during trial and investigative processes, while quantitative design was help in the interpretation of the data thus minimizing the biases. The purpose of empirical research is to measure and compare characteristics of a phenomenon, an individual, a group or an organization that is being studied and to generate a description of the research subject based in the measurement of the said attributes, according to Channels (1985, p 33) who further defines variables as "concrete indicators of the broader concepts of interest to the researcher."

Variables can either be dependent or independent. The reliability of eyewitness testimony is the independent variable whereas the subject witnesses are dependent variables. A cause and effect relationship exists between independent and dependent variables, whereby a change in independent variables causes a change in the dependent variables according to Johnson & Christensen (2012). Because variables will tend to change they exist in varying levels known as attributes according to Channels (1985).

3.3 Location of the Study

This study was carried out in Milimani Courts, located Nairobi County. Milimani Courts catered for the ongoing cases, investigative and criminal court procedures of witnesses. Purposive sampling method was used to select participants and Nairobi County was picked on that it is a representative of the entire country and it is one of the many counties that have a High Court.

Nairobi is also a Metropolitan County with a population that is representative of the diverse social, economic and political attributes of the larger Kenyan society.

3.4 Target Population

The specific population upon which information is desired is referred to as Target population in statistics. Ngechu (2004) describes population as a well-defined set of services, people, events, elements and groups of things that are being investigated. The study targeted twenty (20) respondents who had participated in investigative and trial procedure between 2010-2015.

3.5 Sampling Techniques

A sample design is a "definite plan for obtaining a sample from a given population" notes Kothari (2004, p.54). Population or universe can be defined as all the items under the sample unit (i.e. Nairobi County).In this case the target population is 20 of both genders between 18-60 years who had experience in investigative or trial processes between 2010-2015.

The researcher used purposive sampling technique to pick sample population of the participants from target population to be part of the study. When using survey method and targeting individuals who are considered knowledgeable about the subject matter under investigation, purposive sampling is considered useful (Engel & Schutt, 2010). The reason for purposive sampling approach in this study is because the research will only be interviewing

adults between 18-60 years who have had a direct experience with the investigative or court process.

3.6 Research Instruments

An empirical research method relies on data to help in answering research questions and consequently in achieving the research objectives, according to Pawar (2004). As such the effectiveness of any research depends heavily on the accuracy of data collected. According to Pawar (2004) observations, the quantity, adequacy, appropriateness and quality of research is affected by the data collection method. To attain high quality research results, this study used a mix of research tools to collect both primary and secondary data. Kothari (2004) defines primary data as that data that is collected by researchers first hand from respondents, whereas secondary data is defined as data which have already been collected by another person and is relevant to the subject of inquiry. Primary data in this study was obtained using questionnaire, interviews and observations. Secondary data was collected through reviews of related literature such as court files; criminal procedures code related books, court prosecutors, police investigations officers and court clerks.

3.6.1 Questionnaires

According to Pawar (2004) a questionnaire is a document consisting of close-ended or open-ended questions "covering research objectives, variables and research questions." Questionnaires are instrumental in evoking attitudes, feelings, beliefs, perceptions and experiences of the respondent regarding investigative and judicial process in Kenya. The questionnaire was developed specifically for use in this study. This was essential as it enabled the researcher to make an assessment on investigative and judicial process in relation to the impact they have on adults and pre-adults witnesses Comments and suggestions on drafts were taken from multiple groups of individual with experience of the criminal justice process, or who work with witnesses to prepare them for trial courts. The questionnaire focus was to answer the research question (Appendix A for full questionnaire).

The questionnaire included four sections: The first section comprised of 3 basic demographic questions (i.e., gender, age, and prior experience). The second section comprised of

questions for assessing the effect of cross examination on witness reliability. The third section comprised questions for the impact of eyewitness fear during interrogation. In the first part of

this section, police investigators were asked general questions about their perceptions of citizen cooperation and the reasons for noncooperation. In addition, the methods for working with victims and witnesses to elicit cooperation were explored. In the second part of this section, interview techniques with special focus on Cognitive Interview (CI) and Structured Interview (SI) techniques. The statements consisted of items drawn from the relevant scholarly studies which is readily discussed and cited in the literature review in chapter two. In the fourth section, the effectiveness and reliability of expert witness (forensic psychologist) during sentence mitigation (insanity defense) were examined. The first part of this section inquired about admissibility of expert witness testimony in a trial court which was follow the effectiveness and reliability of expert witness.

Participants responded to the items on a 5-point scale from 1 (strongly disagree) to 4 (strongly agree). In current study, to calculate the percent correct, we combined the responses of "agree" and "strongly agree" as a correct answer and the responses of "disagree" and "strongly disagree" as a false answer. A Likert scale was deemed appropriate as it has been rated the easiest to use by respondents whilst also yielding adequate reliability and validity (Preston & Colman, 2000).

3.6.2 Observation Method

Johnson & Christensen (2012 p. 206) describes observation as the watching of behavioral patterns of people in definite situations to obtain information about the phenomenon of interest.

Although observation is a day to day activity that everyone does, it can be used as a scientific method of data collection if it is planned in a systematic manner, recorded and is subjected to checks to ensure that data collected are scientifically valid and reliable (Kothari ,2004). Through observation, the researcher was able to observe how the adults and pre adults witnesses behave during the testimony period and how the courts, prison, police stations are structured, its atmosphere and the use of the court facilities. Kothari (2004) opines that this method is effectiveness because it does not rely on the respondent's willingness to cooperate or participate in the study as is the case with interviews and questionnaires above.

3.7 Piloting of Research Instruments

Mugenda and Mugenda (2003) states that the validity and reliability of the data collection instrument largely influences the accuracy of the data to be collected, in order to establish the

reliability of the questionnaire a pilot study was carried out on a sample of four potential respondents at Milimani Law courts. The piloting research was done using test-retest method. This was done through the researcher administering the questionnaire twice with a brief time lapse between the first and the second test. The respondents Cronbach's Alpha was used to assess internal consistency and reliability of the questionnaire based on the feedback of the pilot test.

3.8 Data Collection Techniques

The researcher relied on questionnaires and observation as the primary data collection methods. Questionnaires were delivered by hand to respective respondents to complete. The interviews were conducted by four (4) Research assistants. The team of research assistants all received a full day of training on the interviewing protocol from the main researcher. Prior to the start of the study, all researchers conducted practice interviews on two peers to familiarize themselves with the interview script and protocol. After the first three participants had been interviewed by each researcher, the findings were reviewed and all research assistants were found to be consistent in complying with the interview protocol.

3.9 Validity

Gravetter & Forzano (2009 p. 165) define validity as "the truth of the research or the accuracy of the conclusions" of a research. Thus validity can be viewed as „the truth value of research based on how research questions connect with the proposed research methods. A piece of research is considered to be valid when it achieves the objective for which was conducted. Thus this particular research is valid when its conclusions are true and communicate the correct state of the court and investigative process in Kenya in relation to adult and pre-adult testifying. To achieve this, the researcher sort to demonstrate a logical cause-and-effect relationship between dependent variables and the independent variable.

Validity can be viewed as internal or external validity. McBurney & White (2010) note that a piece of research is said to have met internal validity when it provides debatable evidence that independent variable causes change on the dependent variable. Meanwhile, external validity is measured by how much the findings of a study can be applied or generalized to other situations or settings outside the study. The extent to which we can generalize research findings to settings, measures, people, times and characteristics other than those used in the study is known as external validity (Gravetter & Forzano, 2009).

Meanwhile, a research design is considered to be reliable if the error margins between various methods used to arrive at its findings are minimal and does not greatly vary from one observation to another. For example, if an interview schedule is repeated on a respondent its findings should remain consistent with the first interview conducted on the very respondent.

3.10 Reliability

Reliability is defined as the "degree to which an instrument accurately and consistently measures whatever it measures", (Connaway & Powell, 2010 p. 64). To ensure that research instruments deliver accurate and consistent data and thus reliable, the researcher conducted test-retest correlation of data collection tools whereby an instrument is used to collect data twice from the same group in order to test its reliability. In this study, inter-rater reliability analysis identified a significant level of consistency between the two coders, Kappa = .85, $p <$ .001.

3.11 Data Analysis

Data was analyzed using both descriptive and inferential statistics. This is because descriptive statistics aids in the description of data collected with the aim of summarizing the information to be easily understood by the reader while inferential statistics is used to interpret the meaning of descriptive statistics other than making proposition about the data collected and helps in population and so aids in making conclusions. Responses were arranged against each research question.

The qualitative interviews results were transcribed verbatim and the resultant details coded and scored. Thematic analysis (Braun & Clarke, 2006) was used to identify patterns and themes in the open response comments provided by participants during the survey. This analysis was undertaken by two independent researchers.

Similarly quantitative data was edited coded and classified so as to present the results of the data analysis in a systematic way. Statistical Package for Social Science (SPSS) computer package was used to run data input into output in form of means for quick and easy interpretation of the findings. Standard deviation was obtained to determine and check how the items scatter around the mean. In order to verify the existence of a relationship between

independent variable and dependent variables ANOVA analysis were used. Analyzed quantitative data have been presented using tables and verbatim narrations. Regression analysis was then conducted.

Regression analysis is a reliable method of identifying which variables have impact on a topic of interest. The process of performing a regression allows you to confidently determine which factors matter most, which factors can be ignored, and how these factors influence each other. The study purposely combined quantitative and qualitative paradigms aimed at collecting as much information as possible on the subject. The use of quantitative method enabled Statistical Analysis of the data obtained, which was important for ruling out uncertainty. A mixed-model analysis of variance (ANOVA) examined accuracy in each of the interviews as well as accuracy calculated from the cumulative data in the study findings.

In this study the results of a statistical hypothesis test was interpreted so as to start making claims. There are two common forms that a result from a statistical hypothesis test may take, and they must be interpreted in different ways. They are the p-value and critical values.

In statistics, a hypothesis test calculates some quantity under a given assumption. The result of the test allows us to interpret whether the assumption holds or whether the assumption has been violated. The assumption of a statistical test is called the null hypothesis or hypothesis 0 (H0 for short). It is often called the default assumption, or the assumption that nothing has changed. A violation of the test's assumption is often called the first hypothesis, hypothesis 1 or H1 for short. H1 is really a short hand for "*some other hypothesis*," as all we know is that the evidence suggests that the H0 can berejected.

- **Hypothesis 0 (H0)**: Assumption of the test holds and is failed to be rejected at some level of significance.
- **Hypothesis 1 (H1)**: Assumption of the test does not hold and is rejected at some level of significance.

Before we can reject or fail to reject the null hypothesis, we must interpret the result of the test

In this study a finding was described as statistically significant by interpreting the p-value. A statistical hypothesis test may return a value called p or the p-value. This is a quantity that we can use to interpret or quantify the result of the test and either reject or fail to reject the null

hypothesis. This is done by comparing the p-value to a threshold value chosen beforehand called the significance level.

The significance level is often referred to by the Greek lower case letter alpha. A common value used for alpha is 5% or 0.05. A smaller alpha value suggests a more robust interpretation of the null hypothesis, such as 1% or 0.1%.

The p-value is compared to the pre-chosen alpha value. A result is statistically significant when the p-value is less than alpha. This signifies a change was detected: that the default hypothesis can be rejected.

- If p-value > alpha**:** Fail to reject the null hypothesis (i.e. not significant result).
- If p-value <= alpha: Reject the null hypothesis (i.e. significant result).

3.12. Ethical Considerations

First, ethical approval was granted for this study by the Psychology Department of the University of Nairobi. The researcher sought informed consent of respondents by including an ethical statement in the research data collection tool. Best (2012) notes that the codes of research ethics place greater emphasis on consent, anonymity, confidentiality and selection of respondents. As a measure against violation of the set codes of research ethics, the researchers introduced to the respondents the research subject and its intended purpose and encourage them to read the ethical statement before they can proceed to participate in the research. Best (2012) observes that ethical codes are necessary for guiding researchers on the appropriate approach to take, thus guarding against disagreements over moralitymostly common in social research. For the sake of anonymity and confidentiality, respondents were not required to write their name on the questionnaire, instead they were given pseudonym (Prosecutor-P I-IV; Defense Attorney-DA I-VI; Police Officer-PO I-X) to facilitate thematic coding analysis and discussion of the qualitative data.

CHAPTER FOUR

FINDINGS AND DATA PRESENTATION

4.0 Introduction

The sampled population for this study comprised of police officers, prosecutors and defense attorneys from the criminal justice system at Milimani Law Court. The study was conducted with three objectives. The first objective was to assess the influence of cross examination on reliability of eyewitness testimony. The second objective was to determine the impact of eyewitness fear during interrogation, including cognitive interviewing techniques, while the third objective was to examine the effectiveness and reliability of expert witness (forensic psychologist) during sentence mitigation (insanity defense).

4.1 Findings

DEMOGRAPHIC CHARACTERISTICS OF THE RESPONDENT

Table 4.1: Representation of the respondents by demographic characteristics

Participants	**Gender**		**Age**		**Experience**	
	Male	**Female**	**Mean**	**SD**	**mean**	**SD**
Prosecutors	4	0	41.2	7.0	20.7	4.6
Police Officers	8	2	36.7	3.7	18.5	2.8
Defense attorneys	3	3	32.5	6.4	16.4	2.1
Total	**12**	**8**	**32.3**	**5.26**	**17.1**	**2.8**

According to table 4.1 above, the sample comprised of 20 participants (8 females, 12 males), aged between 28 and 57 years old (average age = 32.4 years, *SD* 5.26).The 20 participants category included: Prosecutors (n=4) (all males), ranging in age from 23 to 60 years (mean = 41.2 years, *SD* = 7.0 years); Police Officers (n=10) (those who stated that they are involved in the investigation of a case) (8 male and 2 female) ranging in age from 23 to 52 years (mean =

36.7 years, *SD* = 3.8 years); Defense attorneys (n=6) (3 males and 3 females) ranging in age from 22 to 60 years (mean = 32.5 years, *SD*= 6.4 years). For confidentiality purposes the respondents were not required to identify themselves on the questionnaire.

4.2 THE INFLUENCE OF CROSS EXAMINATION ON RELIABILITY OF EYEWITNESS TESTIMONY

To assess the influence of cross examination on reliability of eyewitness testimony, the study first sought to find out what percentage of the witnesses whom the respondents worked with were cross examined during court trials.

Table 4.2: Representation of the percentage of the participants' witnesses who were cross examined during court trials.

Participants	Sometimes (26-50% of the time)	Often (51-75% of the time)	Frequently (76-99% of the time)	Always
Prosecutors			2	2
Defense attorney		2	3	1
Police officer	4	3	3	
Total	**4**	**5**	**6**	**3**

The majority of respondents, reported that most (76-100%) of their witnesses went through cross examination during court trials. Prosecutors were most likely to report cross examination of their witnesses in this sample. This finding indicates that most witnesses are cross examined while giving evidence. However, there were no significant differences between the three groups on the likelihood of whether a witness would be cross examined or not, H (3) = 1.25, p = 18.

4.3 EYEWITNESS CREDIBILITY

The study sought to determine whether the respondents were able to assess eyewitness accuracy so they could better evaluate its probative value in their most recent criminal case files and help prevent wrongful conviction from erroneous eyewitness testimony. Respondents were asked to indicate their perceptions of the eyewitness' credibility, trustworthiness and their obligation to eyewitness on a Likert scale ranging from 1 (not credible at all) to 10 (very credible). Respondents were also asked to rate the eyewitness' credibility before court ruling deliberation and after the court ruling to determine if there was an effect of the deliberation process on respondents' perceptions of the eyewitness.

Table 4.3: Representation of the respondents by perceptions of the eyewitness

Respondents	Perception	N	Mean_1	Mean_2	Std. Deviation	Std. Error Mean
Prosecutors	Eyewitness credibility	4	3.33	3.09	.985	.284
	Eyewitness trustworthiness	4	3.42	3.47	.902	.207
	Obligation to the eyewitness	4	4.32	4.08	.852	.170
	Age	4	3.55	.961	.173	
	Gender	4	4.21	1.067	.183	
Police officers	Eyewitness credibility	8	4.32	4.08	.852	.170
	Eyewitness trustworthiness	8	4.16	4.53	.902	.221
	Obligation to the eyewitness	8	3.09	3.08	.044	.315
	Age	8	4.00	.000	.000	0.123

	Gender	8	3.50	2.121	1.500	1.452
Defense attorney	Eyewitness credibility	3	2.22	3.00	1.093	.364
	Eyewitness trustworthiness	3	2.89	2.44	.601	.200
	Obligation to the eyewitness	3	3.09	4.08	1.044	.315
	Age	3	2.67	1.528	.882	
	Gender	3	3.55	.961	.173	

Analysis of variance was conducted for the perception of the 3 statements between the three professional groups (i.e., prosecutors, police officers, and defense attorneys). The results showed that there were significant effects between the three legal professional groups for the following 3 items: Eyewitness credibility ($F_{(18, 204)} = 9.12$, $p < .05$), Eyewitness trustworthiness ($F_{(18, 204)} = 16.11$, $p < .001$), Obligation to the eyewitness ($F_{(18, 204)} = 2.75$, $p < .001$), and Individual level dependent variables ($F_{(18, 204)} = 4.08$, $p < .05$).

There was main effect of characterization of cross examination, $F(2,54) = .03$, $\eta^2 = .00$, $p > .05$, and Obligation to the eyewitness, $F(1,54) = .12$, $\eta^2 = .00$, $p > .05$, on how Eyewitness credibility was rated. There was main interaction between Obligation to the eyewitness and Eyewitness trustworthiness, credibility $F(2, 54) = 6.42$, $\eta^2 = .19$, $p < .01$. The results support H1: By inviting Psychologists and Scientists who evaluate the credibility of eyewitness memory, the trial process will distinguish between accurate and inaccurate eyewitness testimony. No other comparisons reached significance, $p > .017$.

Specifically, for Eyewitness credibility, the Police officers (Mean = 4.32, *SD* =.852) reported higher scores of Eyewitness credibility than the prosecutor (Mean = 3.33, *SD* = .985). The defense attorneys (Mean = 2.22, *SD* = 1.093) had lower Eyewitness credibility scores than the police officers and prosecutors.

For Eyewitness trustworthiness, the Police officers (Mean = 4.16, *SD*= .902) still reported higher scores than the prosecutors (Mean = 3.42, *SD* = .902) and defense attorneys (Mean = 2.89, *SD* = .601). For Obligation to the eyewitness, the police officers (Mean = 3.09, *SD* = .044) and the defense attorneys (Mean = 3.09, *SD* = 1.044) reported lower scores than the prosecutors (Mean = 4.32, *SD* = .852).

The findings further indicate that age had impact on the eyewitness credibility. The Police officers (Mean = 4.00, *SD*= .000) still reported higher scores than the prosecutors (Mean = 3.55, *SD* = .173) and defense attorneys (Mean = 2.67, *SD* = .882).

According to the finding, gender of the eyewitness also has impact on the witness credibility. Prosecutors rated high the impact of gender (Mean = 4.21, *SD* = .183) than the defense attorneys (Mean = 3.55, *SD* = .173) and the police (Mean = 3.50, *SD* = 1.500) respectively. This ANOVA revealed a non-significant main effect for the gender of the participants, F (1,159) = 2.19, p = .14. The ANOVA revealed a significant main effect for the gender of the eyewitness, F (1,159) = .89, p = .001. There was not a significant interaction for the age of the eyewitness and the gender of the eyewitness, F (1,159) = 2.04, p = .16.

4.4 CHARACTERIZATION OF CROSS EXAMINATION SESSIONS DURING COURT TRIALS

The study next sought to identify features that characterize cross examination sessions during court trials. Participants were asked to indicate on a 5-point Likert scale how they agreed or disagreed with each of the statements on features that characterize cross examination sessions. For the purpose of the statistical analysis, explanatory variables included statement that characterized cross examination sessions from evidence in existing literature were included. Based on the available literature (Fisher & Geiselman, 1992; Memon, Meissner, & Fraser, 2010), the statements were adopted from Achieving Best Evidence Guidelines (2011) guidelines. The ABE guidelines emphasize the importance of rapport building; encourage an initial, uninterrupted free recall attempt; advocate the use of open, non-leading questions and the limited use of closed, forced-choice and ‘shift’ questions; and advises against the use of misleading questions.

Table 4.4: Representation of features that characterize cross examination sessions

Statement	SD	D	M	A	SA	Total		Mean
						%	n	
Cross-examination was characterized with features such as the juxtaposition of topics	2	4	1	5	8	100	20	3.8
Cross-examination was characterized with rapid changes in the direction of questioning	6	4	0	5	5	100	20	3.48
Cross-examination was characterized with open-ended	4	4	4	5	3	100	20	2.94
Cross-examination was characterized with questions lacking grammatical or semantic sense	2	4	0	10	4	100	20	3.6
Cross-examination was characterized with the use of tagging or negative tagging at the end of a statement to encourage witnesses to give short 'yes/no' responses(*forced-choice questions*)	0	1	1	9	9	100	20	4.1
Cross-examination was characterized with perseveration to create a rhythm to the evidence, limiting the witness' response options and other complex tactics*(Closed-end)*	0	0	4	12	4	100	20	4.48
Cross-examination was characterized with interrogative suggestibility	0	1	0	10	9	100	20	4.13
Cross-examination was characterized with introduction of post-event information and suggestion to a witness through leading questioning(*Misinformation*)	0	0	4	12	4	100	20	4.48

According to table 4.2 above, majority of the respondents said that cross-examination was characterized with perseveration to create a rhythm to the evidence, limiting the witness' response options and other complex tactics and introduction of post-event information and suggestion to a witness through leading questioning as was shown by a mean score of 4.48 respectively. Others also agreed that the cross-examination was characterized with interrogative suggestibility including the use of tagging or negative tagging at the end of a statement to encourage witnesses to give short 'yes/no' responses(*forced-choice questions*)as was shown by a mean score of 4.13 and 4.1 respectively. The finding further indicate that, cross-examination was characterized with questions lacking grammatical or semantic sense (mean=3.6), rapid changes in the direction of questioning (mean=3.48), and the juxtaposition of topics (3.8). A small number of respondents, however, noted that witness cross-examination sessions during court trial was characterized with open-ended (2.95).

Mixed ANOVAs was done with a between groups factor of characteristic of question type (open, closed, forced-choice) during cross-examination. Statistics indicate that there was some significant on characterization of question type agreed on by the respondents, $F(2, 72) = 130.095$, $p < 0.001$, $hp2 = .783$. Planned comparisons were conducted with *t*-tests to identify between groups (Prosecutors/Police officers/Defense attorney) whether open questions differed significantly to other question types. Based on a Bonferroni corrected p value of .025, a significantly higher number of participants agreed that cross examination was characterized with both closed, $t(20) = 12.182$, $p < .001$, $d = 2.73$, and forced-choice questions, $t(18) = 10.893$, rather than open questions $p < .001$, $d = 2.46$ respectively. This was confirmed with between groups *t*-tests which found no significant differences between the groups on any of the measures A between groups *t*-test found no significant difference in the response of the three groups, $t(54) = -.568$, $p = .57$.

Based on eyewitness literature on best practice questions (Fisher & Geiselman, 1992; Lamb & Fauchier, 2001; Lamb, Hershkowitz, Orbach, & Esplin, 2008; Memon & Bull, 1991; Memon et al., 2010) and interviewing guidelines (Achieving Best Evidence Guidelines, 2011) it has been predicted that open questions would produce more accurate responses than closed and forced-choice questions are not supported by findings in the current study.

These findings support H1, H2 and H3 respectively;

H1: Cross examination permits styles of scrutinizing evidence that builds eyewitness' suggestibility and increase eyewitness error.

H2: Questioning techniques are not structured to elicit fear but to extract the most accurate eyewitness recount.

H3: Expert psychological testimony inclusion improves a juror's ability to mitigate eyewitness testimony in a court trial.

4.5 THE EFFECT OF CROSS EXAMINATION ON WITNESS RELIABILITY

The study also sought to look at the effect of multiple question types on memory recall in a cross-examination context, including mildly interrogative style questions. For the purpose of the statistical analysis, explanatory variables included propositions on the effect of cross examination on witness reliability draw from evidence in existing literature. Based on literature review, it was anticipated that free recall accuracy occurs because of these challenging questioning styles which impact malleability of memory and consequently the memory trace strength on recall ability.

Table 4.5: Representation of propositions on the effect of cross examination on witness reliability

Proposition	**SD**	**D**	**M**	**A**	**SA**	**Total**		**Mean**
						%	n	
Cross-examination has a negative effect on testimony recall accuracy	6	4	0	5	5	100	20	3.48
Most important application of cross-examination is to distinguish honest from dishonest witnesses.	0	0	0	12	8	100	20	3.46

The effectiveness of cross-examination is exposing witnesses who deliberately attempt to deceive	0	0	0	12	8	100	20	4.48
Cross-examination permits styles of questioning that increase eyewitness error	2	4	1	5	8	100	20	3.8
Cross-examination cannot mislead a honest witness	0	1	3	7	9	100	20	4.1
Cross-examination can impair the accuracy of adult eyewitness testimony	2	4	0	10	4	100	20	3.6
Cross-examination increase witness's testimony suggestibility	0	0	4	12	4	100	20	4.46
Honest witnesses can be misled by cross-examination	6	4	2	5	3	100	20	3.7

According to table 4.3 above, majority of the respondent said that the effectiveness of cross-examination is exposing witnesses who deliberately attempt to deceive as was shown by a mean score of 4.48. A good number of the respondents agreed that the most important application of cross-examination is to distinguish honest from dishonest witnesses as was shown by a mean score of 3.46.

Further, others agreed that cross-examination increase witness's testimony suggestibility as was shown by a mean score of 4.46. A good number of respondents agreed that cross-examination cannot mislead a honest witness as was shown by a mean score of 4.1. Many also agreed that Cross-examination permits styles of questioning that increase eyewitness error (mean=3.8) and that it had a negative effect on testimony recall accuracy (mean=3.48). Respondents further agree that cross-examination can impair the accuracy of adult eyewitness testimony as was shown by a mean score of 3.6.

A mixed ANOVA, with a between propositions and a within group, confirmed a significant effect of cross examination on witness reliability F (1, 52) = 82.001, p < .001, _2 = .60. A greater effect was "Cross-examination increase witness's testimony suggestibility" (M = 2.46,

SD 1.94) in all groups, indicating no difference between the groups (Prosecutors/Police Officers/ Defense attorney).

4.6 IMPACT OF EYEWITNESS FEAR DURING INTERROGATION, INCLUDING COGNITIVE INTERVIEW (C.I.T)

Factors are predictive of effective victim cooperation with police investigations

To determine the impact of eyewitness fear during interrogation, including cognitive interview, the study first sought to find out what factors are predictive of effective victim cooperation with police investigations.

According to one police officer:

> "Witness and victim demographics are highly associated with cooperation rates. Cooperation differed across gender and age groups…female victims are more likely to cooperate with investigators….. Male victims were more likely to be uncooperative in police investigations.
>
> Older victims are the least likely to be uncooperative, whereas victims between the ages of 20 and 30 were the most likely to be uncooperative in investigations……the fear of retaliation and victim intimidation is the driving factor behind victim and witness noncooperation" (PO VII, Interview, 2019).

According to this investigator:

> "Crime circumstance is closely related to cooperation rates. Witnesses are generally more cooperative in homicide investigations than in assault investigations for two reasons. First, due to the extended timeline of murder investigations, investigators have more time to develop relationships with witnesses. Homicide case investigators can visit witnesses multiple times and spend time building rapport with them. Secondly, the death of an individual plays a large role in the willingness of a prospective witness to share information with the police……When an individual is the victim of an assault, community members do not feel the need to come forward. However, death is a more permanent loss, and community members often feel stronger emotions as a result of a murder and want to get justice. Usually, family members are typically more involved in a

relative's death investigations than in assault investigations…..In homicide case, the death of a victim actually allows for an easier investigation because the victim is not able to be uncooperative in the investigation. Homicide investigations grant investigators access to victims and details about their lives, but such information may not be accessible in assaults case when a victim chooses not to cooperate" (PO VII, Interview, 2019).

Another police officer corroborated this observed by stating that:

"Based on my own experience and analysis, victim demographics appear to be the primary predictors of noncooperation with the police, while crime circumstances appear to be predictors of active cooperation. The likelihood of active victim cooperation depends not on who the victim is but on the circumstances of the crime. Active cooperation rates are generally higher amongst robberies victims who are likely to be helpful in a police investigation and are always will to cooperate actively with investigating officers.. For example, victims of carjacking are more cooperative. Victims of robberies have the added incentive of attempting to re-obtain their lost property. Moreover, in most robberies, victims are not acquainted with the perpetrator, and thus, they may have fewer reservations about assisting in the police investigations" (PO IX, Interview, 2019).

The police officer further observed that:

" Crimes that occurred in the morning or afternoon were more likely to have cooperative victims than crimes in the evening, and crimes that occurred outside or inside were more likely to have actively cooperative witnesses and victims…..evening crimes present circumstances that may prevent active cooperation. Victims in such crimes may be limited in their capacity to assist the police in such crimes because of an inability to see or identify the offender. In all the cases in which the police call was made from the hospital, the victim arrived at the hospital via car without anybody having called the police. The police were later called by the hospital due to mandatory reporting, but in many such cases, presumably, the victim or their acquaintances chose not to call the police because they did not want police involvement in an investigation. Thus, such victims may

have been more likely be actively uncooperative in subsequent police questioning" (PO IX, Interview, 2019).

One police officer pointed to general resources and the caseload:

> " The department of criminal investigation (DCI) homicide unit has substantially more resources compared to a police station or division crime units…. such as more contact with the Directorate Of Public Prosecutor(DPP), defense attorneys, longer time to work on investigations, more lab tests, more assistance from other investigators such as the government pathologist- making the workload lighter…..all homicide investigators from the DIC work is collaborative on an investigation, whereas in an assault case, only one investigator from a police division may be at the crime scene. In addition to facilitating an easier investigation, greater resources and a lighter workload contributes to spending more time with potential witnesses and thus greater citizen cooperation in investigations" (PO-X Interview, 2019). .

The investigators said that:

> "The fear of retaliation is a primary reason for the absence of victim or witness cooperation. Many victims and potential witnesses fear retaliation in the form of personal injury or injury to one's family. Retaliation is often used as a tool used by gang affiliated individuals to deter cooperation with the police, and for many victims and witnesses, the costs of potential harm outweigh the marginal benefits of working with investigators.
>
> A common typology of fear of retaliation explanation, is the pervasiveness of the "no snitching" culture in the target communities such as in slum where gang membership thrive. In contrast to the fear of retaliation, the "no snitching" culture refers to a general cultural norm in both gang and non-gang affiliated communities against informing and working with the police. One such case is the issue of Mungiki, matatu and bus terminus cartels that collects money/levy for 'security'. Those members of the public caught speaking with the police are labeled as "snitches," which carries social and safety repercussions. The phrase "snitches get stiches" is used to caution the would be informer deterrent them from working with the police" (PO-X Interview, 2019).

Another Police officer pointed to a general indifference towards crime, suggesting that:

> "For at least some individuals, no reason exists to care about solving crimes…..some victims and witnesses may refuse to work with the police in solving crimes because in their given communities, the preferred method of handling disputes is through street justice…..since investigators would typically complicate attempts at street justice, members of the community, primarily the gang-affiliated, choose to not discuss rival gang crime against them with the police in hopes of retaliating on their own" (PO-VII Interview, 2019).

She further observed that:

> "A general mistrust of the police, particularly amongst the demographics least likely to cooperate, may be an underlying factor in a victim or witness's refusal to cooperate" (PO-VII Interview, 2019).

The investigators suggested several possible explanations for general mistrust in a particular victim or witness:

> "First, community members may be skeptical of the police because of previous experiences of law enforcement members lying to the individuals, such as promising to keep a witness's name anonymous and confidential but later sharing the name…..community members may lack faith in the efficacy of the criminal justice system if they have had prior experience of working with investigators and not perceiving direct results. The lack of results because of certain circumstances, such as insufficient evidence to arrest a potential suspect, could foster a belief that police investigators are not interested in assisting the community or not attempting to help to the best of their ability in the investigations" (PO-VII Interview, 2019).

Another police officer pointed to complications in the court system along with the expectation that witnesses testify during trial, as a significant impediment to garnering cooperation from a victim or witness:

> "Some individuals may refuse to provide information to the police because of the expectation that they later serve as witnesses because of their testimony. Other

community members willingly share information with the police for the purpose of an investigation but refuse to have their name recorded, thus complicating attempts to later prosecute asuspect" (PO-V Interview, 2019).

The investigators also suggested several explanations for individual reservations about testifying in a public court:

> "First, the public nature of the trial process, whereby all witness names are openly available, could lead to concerns about safety and reputation. Moreover, the court process is lengthy, arduous, and expensive for members of the community. Most trials require witnesses to make several appearances in court over a long period of time, a difficult task for community members that lack reliable forms of transportation or the capacity to take extensive time off work" (PO-V Interview, 2019).

According to another police officer, the one underlying theme is a general misunderstanding about criminal investigations. This investigator mentioned the difficulty in acquiring cooperation in undocumented immigrant communities, for instance in Eastleigh, due to a fear of deportation. The respondent intimated that:

> "The fear stems from an inherently false understanding of the criminal justice system because the police would never report a victim of a crime to be deported. The concept of a misunderstanding of the criminal justice system was echoed by several other respondents. The respondents emphasized that many community members do not recognize the court system and the police as distinct entities. Thus, when the court elects to make a certain decision that may not be favorable to the community, such as choosing not to prosecute or setting a low bail, the police receive the blame for the decision, thus leading to greater police mistrust and skepticism" (PO-IX Interview, 2019).

4.7 THE CHALLENGES ASSOCIATED WITH WITNESS AND VICTIM COOPERATION

The study next sought to find out what were the challenges that police investigators felt were associated with witness and victim cooperation. The intention was to examine factors

associated with the odds of cooperation and investigator experiences and beliefs about citizen cooperation.

One particular defense attorney expressed concern about witness and victim rights:

> "The position of witnesses in the Kenyan criminal justice systems revolves entirely around responsibilities rather than rights. When it comes to collaborators of justice and informants, their rights are generally limited to what they can negotiate with the authorities, obviously from a disadvantaged position……There is an apparent imbalance between the "rights" of witnesses and victims, who can be compelled to testify, and the "rights" of the State to demand that witnesses respond to summons and subpoenas, testify under oath, and tell the truth."

He further states that:

> "The imbalance is particularly troubling when one considers that most of the decisions made about witnesses, the information or evidence they provide, or whether or not they are compelled to testify depend on police and prosecutorial discretion which is generally not open to public scrutiny…..This is why guidelines concerning these practices are important and why the careful monitoring of this somewhat obscure part of the criminal justice process is required. In brief, notwithstanding the legitimate legal, public safety, security, confidentiality, and privacy considerations that must equally be addressed, it is imperative that some greater transparency be introduced with respect to decisions made concerning the granting of witness protection, the denial of protection in certain cases, as well as the general use of informants and collaborators of justice……Victims of crime are frequently called upon to testify and have a right to be protected against intimidation, violence and retaliation. Their situation rarely justifies entering into a witness protection program, but there are cases where this option may be deemed necessary.

The defense attorney further states that:

> "Other people who are witnesses of a crime but not called to testify may also be subject to threats and intimidation to prevent them from sharing what they know with the authorities. Regardless of their immediate usefulness to the investigation

or the prosecution, victims and witnesses should have access to adequate protection against those who are threatening them……..the rights of children witnesses and the ability of current mechanisms to protect them, the question of protecting victims/witnesses involved in cases of police misconducts, and the question of protecting witnesses for the defense are rarely discussed.

According to another defense attorney:

"Vulnerable witnesses and victims are typically not in an advantageous position to negotiate the terms of their cooperation with the authorities. The authorities may or may not always honour these terms and when they do not, there are very few choices available to the witnesses and victims….. The situation is even direr for witnesses and victims who are denied protection when the police are unable or not prepared to proceed with a given case or when they decide that they no longer need a particular witness. As many of the decisions concerning witness protection and the use of informants are still left to the discretion of the police or prosecutors, it is important to balance these discretionary decision making powers with adequate protection for the rights of the individual witnesses and informants.

In Kenya, witness protection programs are not as publicly trusted, and it is felt that many witnesses refuse to participate, fearing for their personal safety and security. This is especially problematic where there is a real lack of confidence in the impartiality of the police….. for instance, intimidation of protected witnesses who are detained can be very hard to detect, particularly when it occurs indirectly. There is often a need to take measures to protect the families of custodial witnesses. In some instances, the corruption or the intimidation of prison personnel can introduce a huge element of risk for the witnesses who are being detained. It is therefore often necessary to limit the circle of individual staff members who have access to the protected inmates and to information about them."

The respondent indicated that:

"according to Section 5 of the Witness Protection Act 2006, a multi-agency task team which consists of representatives from the Police, Provincial Administration, Judiciary, National Security Intelligence Services, Kenya Anti-Corruption Commission, Immigration Department, National Counter-terrorism

Centre, Prisons Department and the Ministry of Justice and Constitutional Affairs is mandated to oversee and co-ordinate witness protection through collaborative efforts. While these efforts may be initiated by the witness, investigator, prosecutor or intermediary, the decision to include any person in the program is the sole responsibility of the Agency Attorney."

One prosecutor observed that:

"Procedural measures can be used to reduce the risk faced by witnesses, including recognizing pre-trial statements**.** In most European countries, for example, pre-trial statements given by witnesses and collaborators of justice are recognized as valid evidence in trial court, provided that the parties have the opportunity to participate in the examination of witnesses.

If one assumes that, in a system where pre-trial statements of witnesses or testimonies of anonymous witnesses are generally regarded as valid evidence during proceedings, these procedures can provide effective protection of witnesses. However, the actual witness protection may be lower under those circumstances, than when these procedures do not exist in the justice system. Another promising procedural approach to witness protection consists of better managing the disclosure process and the risks that it represents to witnesses and potential witnesses. Defense lawyers have a right to obtain witness statements at the time of disclosure, but these statements can eventually be used against witnesses and increase their vulnerability."

To corroborate this observation, one defense attorney indicated that:

"In developed world, such as US and France for example, practical measures such as videoconferencing, teleconferencing, voice and face distortion, and other similar techniques are used. In other state witnesses are allowed to conceal their address or occupation…..for example, some witnesses (those who can contribute an important element of evidence and were not involved in the offence) may be allowed to testify without having to reveal their address. They are allowed to give the address of the police instead of their own. In some cases, the law provides that a witness may be heard in the absence of the defendant, in order to prevent both

direct verbal or physical threats to the witness as well as more subtle intimidation by the defendant, such as ominous looks or gestures……..

Another form of procedural protection for witnesses is sometimes available, even if quite controversial; in some countries, it is possible to use statements of anonymous witnesses as evidence in court although, generally speaking, convictions may not be based on anonymous testimony alone. This is usually limited to cases where there is reason to believe that the witness would be seriously endangered. In many European countries, in exceptional circumstances and in accordance with European human rights law, anonymity of persons who provide evidence in criminal proceedings may be granted, in order to prevent their identification. The European Court of Human Rights has often agreed to the legality of the use of anonymous informants during preliminary investigations, but it has also emphasized that the use of the information thus obtained at the trial presents a problem with respect to fairness. Even when permitted by law, the procedure for granting partial or full anonymity to a witness tends to be rarely used because of how, in practice, it can limit the admissibility of various elements of their testimony" (DA I Interview, 2019).

However, the defense attorney is of the view that:

"Anonymous testimony raises obvious issues about the rights of the defendants to a fair trial. For example, the European Court on Human Rights has set some limits on the use of anonymous testimony. The judge must know the identity of the witness and have heard under oath the testimony and determined that it is credible, and must have considered the reasons for the request of anonymity; the interests of the defense must be weighed against those of the witnesses and the defendants and their counsel must have an opportunity to ask questions of the witness; a condemnation cannot be based on the strength of the testimony of that witness alone" (DA I Interview, 2019).

The respondent further point out that:

"Admissibility of such anonymous testimony depends, according to the European Court on Human Rights, on the circumstances of the case and three principles that emerge from case-law. Is anonymity justified for compelling reasons? Have the

resulting limitations on the effective exercise of the rights of the defense been adequately compensated for? Was the conviction exclusively substantially based on such an anonymous testimony?" (DA I Interview, 2019).

The defense attorney volunteered that:

> "Special rules on anonymity have been legislated, for example, in countries such as Belgium, France, Germany, the Netherlands, Moldova, and Finland. In some of this legislation (e.g. Moldova), the testimony of an anonymous witness must be corroborated to be considered valid" (DA I Interview, 2019).

4.8 MEASURES TAKEN BY LAW ENFORCEMENT AGENCIES TO ENCOURAGE GREATER CITIZEN COOPERATION WITH POLICE INVESTIGATIONS

The study also sought to find out what measures can be taken by law enforcement agencies to encourage greater citizen cooperation with police investigations? It helped identify specific and tangible actions taken by the investigator to encourage cooperation and potential means of reducing noncooperation."

According to one Prosecutor:

> "One solution to improving victim and witness cooperation may be the expansion of police protection programs, particularly in cases where police investigators suspect that an individual may be the victim of a gang-related or domestic crime….I proposes that emergency relocation for witnesses, improved courtroom security, segregation in correctional facilities, and greater community outreach may all be effective means of eliciting greater victim and witness cooperation (P III Interview, 2019).

One Defense attorney suggested that:

> "Though traditional approaches to victim and witness cooperation include more aggressive tactics such as threats of obstruction of justice, forming a closer personal connection with the victim may be more effective at encouraging cooperation in domestic violence cases, this should include, cooperation in evaluating the threat against a witness or victim, prompt communication of information concerning potential threats and risks….. the one most important

predictors of victim cooperation are the videotaping of testimony and the meetings between victims and their assistance workers. Such a trend may extend to other violent crimes as well" (DA II Interview,2019).

The respondent further observed that:

"The prospect of monetary incentives may prove a useful tool in prompting greater citizen cooperation. In some country such the US, for example, many victim compensation programs, which provide monetary relief to victims of crimes in exchange for their cooperation, exist. Witness protection is largely seen as a police function…… such victim compensation programs are contingent on the full cooperation of the victim with the police, police investigators could presumably improve cooperation rates through fully informing victims about the services and potentially leveraging the monetary incentive" (DA II Interview, 2019).

A police officer said that:

"A combination of factors may determine victim and witness cooperation. On the individual level, a variety of demographic features, including, ethnicity, and sex, may predict the individual's eventual willingness to cooperate….. Nonetheless, several investigative strategies may also assist in greater cooperation. For instance, improved police protection and monetary compensation, factors potentially within the control of a law enforcement official, may also prove valuable predictors of eventual citizen cooperation" (PO IV Interview, 2019).

According to one police officer:

"…..police can take a number of basic measures to protect witnesses against intimidation. For example, they can engage in surveillance activities at crucial times; escort the witness to work, court, etc.; lend a personal alarm device; assist with emergency relocation; increase police patrols in the area where the witness lives; or even offer 24-hour police protection." (PO II Interview, 2019).

However, the officer lamented that:

"In Kenya, whether or not to offer these services is often a question of resources and costs. Moreover, police are not always provided with sufficient guidance on

their responsibility with respect to witness and victim protection……..In some cases, police must resort to protective custody, even if that protection method is not one which is particularly likely to encourage witnesses to collaborate with the authorities" (PO II Interview, 2019).

One defense attorney was of the view that:

"Many countries have provisions in their laws to permit the detention of a material witness (someone who has unique information about a crime). There is, however, a clear danger of abuse of these provisions, in particular those who are being detained as a form of "investigative detention" while the investigation is ongoing……Compelling material witnesses to testify (by arresting and/or detaining them) is arguably one of the least effective measures for obtaining useful evidence from a threatened witness. Since the method produces doubtful results (e.g., via arrest, investigative hearings), it should be used with discretion" (DA IV Interview, 2019).

Another defense attorney takes the observation further by opining that:

"Protective measures can also be taken at the level of the trial courts. Some witnesses may be unable to testify freely if they are required to testify in open court in the usual manner. Measures may be taken by the courts to restrict public access to the witness's identity or testimony through a number of measures, including having a witness testify under a pseudonym; expunging names and identifying information from the court's public records; or having all members of the public, including members of the media, excluded from the courtroom during the testimony of a witness. The use of screens, closed-circuit television and video links are the main methods by which a witness, while testifying, can be protected from the accused" (DA VI Interview, 2019).

4.9 STRATEGY AND TOOLS THAT WERE UTILIZED TO HELP IN VICTIM AND WITNESS COOPERATION

The study also sought to find out what strategy and tools do you utilize to help with victim and witness cooperation

When asked about strategies for encouraging victim and witness cooperation, police officers who are the initial investigators lacked a strong consensus over preferred methods. Instead, there was a general belief that no single strategy can most effectively encourage an individual to cooperate with the police, and approaches and tactics should be tailored to a given individual or situation. For instance, a majority of the investigators mentioned that in certain circumstances, attempting to find common ground with the victim or witness is a particularly useful tactic. Through referencing commonalities with the potential witness, such as race, being a single mother, or growing up in the same community, some investigators find success in helping community members see the investigators beyond their status as police officers, thus allowing the individuals to more easily open up.

Similarly, respondents cited that in some circumstances, they resort to emotional appeal to encourage cooperation, through the use of phrases such as "think of their family," "this is somebody's child," or "you can help stop this from happening to someone else." However, many felt that appealing to emotion is not a particularly effective method, and even if emotional appeal proves useful temporarily, its effect is often fleeting, and victims and witness return to beinguncooperative.

Several respondents also mentioned leveraging pending criminal charges against witnesses to elicit their cooperation. In certain circumstances, the threat of further criminal prosecution can encourage a prospective witness to work with the police despite initial reservations. Some investigators also indicated that on occasion, they would pit victims and witnesses against one another to convince them to talk and share what they knew.

Additionally, respondents mentioned techniques that often involved accommodating the witnesses. For example, some investigators make the witness feel comfortable, such as offering a snack or drink, and others suggest meeting the victim or witness at a convenient location. For some witnesses who fear being seen with the police in their communities, the best location is at the police station, while for other witnesses who are

uncomfortable or stressed at the police station, the best meeting location may be at their homes. Likewise, a few interviewees indicated that sometimes the best police investigator to conduct an interview is the one that is most relatable to the victim or witness, be it the same gender or the same race, thus allowing the investigator and the witness to share common ground.

A few investigators also indicated that face-to-face interviews, compared to talking over the phone, are particularly effective because they allow for the officers to better read body language, and individuals are less likely to lie or fabricate stories when in person. In addition, several investigators mentioned that using two investigators in a witness interview is markedly more effective at gathering information than using just one. The use of two investigators allows one investigator to observe body language and responses while the other drives the line of questioning. Two investigators can also play off one another's questioning and language to prevent lying or encourage the witness to be more cooperative.

4.10 HOW THE WITNESSES AND VICTIMS WERE INTERVIEWED

The study further sought to find out how the witnesses and victims were interview. The questionnaire was designed to compare use of Cognitive Interview (CI) and Structured Interview (SI) techniques components. The focus here was on the role of the police interview to accomplish these two goals: eliciting witness information to solve crimes, reducing fear during the encounter and promoting witness and victims' psychological health. The intention was to find out how the application of a particular interviewing protocol and methodology was likely to impact the intended interview outcome.

Participants were provided with statements in the questionnaire which suggested mnemonic techniques to improve recall, based on the four main components of the cognitive interview (context reinstatement, report everything, recall the event in different orders, change perspective to consider what someone else may have seen (Fisher & Geiselman, 1992; Memon et al., 2010). Control statements in the questionnaire were drawn from components of a typical police interview that limit the amount of information witnesses communicate, and which militate against victims' overcoming psychological problems such as anxiety and fear.

Table 4.6: Representation of propositions on interviewing techniques to retrieve information from a witness or a victim

Statement	SD	D	M	A	SA	Total		Mean
						%	n	
The interview revolves around the evidence needed by the investigator	1	2	0	7	9	100	20	4.1
The interviewer does most of the talking (in the form of asking questions), and the witness merely "helps out" by answering the questions	6	4	0	5	5	100	20	3.7
The questions are very specific	2	4	1	5	8	100	20	3.8
Witnesses are discouraged from providing information unrelated to the specific question	5	6	0	5	4	100	20	2.8
The sequence of the interview is determined by the interviewer, often adhering to a pre-determined written checklist of questions	2	4	0	10	4	100	20	3.6
Allow witnesses to control the direction of the interview	6	4	0	5	5	100	20	3.7
The interview opens with a set of formal questions (e.g. witness's name, contact information) to allow the interviewer to fill out his/her crime report	0	0	0	12	8	100	20	4.48
The interviewer request a free narrative account from the witness	0	0	4	12	4	100	20	4.46
The interviewer frequently interrupts the witness to ask follow-up questions	0	1	0	10	9	100	20	4.13

The interviewer often asks leading or suggestive questions to confirm his/her hypothesis about the crime.	2	6	0	8	4	100	20	3.87
The interviewer using a standardized checklist to guide their questioning of all victims	6	4	0	5	5	100	20	3.48
Before initiating a free report the interviewer ask the witness or victim to think back to the original event and try and have an image of the event in their mind as they described it.	0	0	0	12	8	100	20	3.46
The interviewer conduct the interview primarily by asking open-ended questions	1	4	4	7	4	100	20	4.48
*The interviewer asks the witness or victim to return to both the environmental and the emotional context of the scene of the crime	0	1	0	10	9	100	20	2.95
**The interviewer encourages the witness or victim to report every detail they can remember, even partial information.	2	2	4	7	5	100	20	2.91
***The interviewer ask the witness or victim to recount the scene in a different chronological order, for example, from the end to the beginning.	6	4	0	5	5	100	20	4.48
****The interviewer ask the witness/ victim to recount the scene from a different perspective, for example, by telling it from the point of view of another person who was involved	2	6	0	8	4	100	20	4.48

N/B: The Cognitive Interview (CI) technique requires giving four instructions that the witness is asked to follow throughout the interview.

*Return to both the environmental and the emotional context of the scene of the crime (mental reinstatement of context).

**Recall the maximum amount of information, even if it appears to have little relevance or is accorded a lower level of confidence (hypermnesia).

***Recount the scene in a different chronological order, for example, from the end to the beginning (change of narrative order).

****Recount the scene from a different perspective, for example, by telling it from the point of view of another person who was involved (change of perspective).

Table 4.11 above reveal that majority of the respondents strongly agreed that police interview technique revolves around the evidence needed by the investigator as was shown by a mean score of 4.10, further others also agreed the interview technique opens with a set of formal questions (e.g. witness's name, contact information) to allow the interviewer to fill out his/her crime report as was shown by a mean score of 2.89. A good number participants agreed that the interviewer frequently interrupts the witness to ask follow-up questions; the interviewer often asks leading or suggestive questions to confirm his/her hypothesis about the crime; The sequence of the interview is determined by the interviewer, often adhering to a pre-determined written checklist of questions as was shown by a mean score of 3.79, 3.87 and 3.69 respectively. This may imply that, although the police officers who conducted structured interviews let the witnesses freely recount the event in question (The interviewer request a free narrative account from the witness- mean=4.46), they retained their method of obtaining testimonies, which consisted of interrogating the witness with a predetermined sequence of questions that corresponded to the required content of the write-up (The interviewer often asks leading or suggestive questions to confirm his/her hypothesis about the crime-mean=3.87).

The study findings indicate that the interview techniques encourages the witness or victim to report every detail they can remember, even partial information and the interviewer conduct the interview primarily by asking open-ended questions (mean=4.48) . The findings also indicates that the interviewer request a free narrative account from the witness (mean=4.42).

The findings indicate that the interviewers mixed interviewing techniques, although the extend and degree of use varied significantly. Specifically, the interviewers used CI technique open-ended questions 'report everything' and free narrative account instruction. This result confirms the assumption that, by granting so much importance to free recall (already rich in details according to the literature review), adoption of some cognitive interviewing technique prevents police investigators from falling back on routine questions to acquire information.

However, majority of the interviewers did not use the `transfer of control' in most of their interviews (Chi-square (2) = 47.65, p<.001). Variance analysis between the use of cognitive interview (CI) and structured interview (SI) techniques proved highly significant (χ^2 (1) N = 15) = 11.63, $p<.001$). Generally, means in this data consistently favoured the structured interviewing technique over cognitive interview technique. Indeed, the use of structured interview (SI) technique was 1.38 times higher than the use of cognitive interview technique (CI) (p<0.01). Note, however, that this difference was not significant between the cognitive interview and the standard interview, although a corresponding tendency was observed (t (7) = 1.79, $p<.09$).

4.11 THE EFFECTIVENESS AND RELIABILITY OF EXPERT WITNESS

Admissibility of expert witness testimony in a trial court

The study sought to find out under what circumstance is the prosecution's or defendant's offer of expert witness testimony about the unreliability of eyewitness testimony admissible in the trial court.

According to one defense attorney:

> Evidence Act is broadly framed to favor the admissibility of testimony that may assist the trial judge or magistrate. Section 143 of Evidence Act (Cap 80) Laws of Kenya provides:-
>
> *"143. No particular number of witnesses shall, in the absence of any provision of law to the contrary, be required for the proof of any fact.*
>
> Trial court, therefore, addressed itself thus:-

"(i) The prosecution must make available all witnesses necessary to establish the truth even if their evidence may be inconsistent.

(ii) That Court has right and the duty to call witnesses whose evidence appears essential to the just decision of the case.

(iii) Where the evidence called is barely adequate, the court may infer that the evidence of uncalled witnesses would have tendered to be adverse to the prosecution.

According to this respondent:

> "Whether the situation is a proper one for the use of expert testimony is to be determined on the basis of assisting the trier. The appropriate question asked under this rule is "on *this subject* can a jury from *this person* receive appreciable help? (DA-I Interview, 2019).

In corroborating the above observation, one prosecutor opined that:

> "Although relevant, evidence may be excluded if its probative value is substantially outweighed **by** the danger of unfair prejudice, confusion of the issues, or misleading the jury, or **by** considerations of undue delay, waste of time, or needless presentation of cumulative evidence..... While expert testimony may create a "battle of the experts," or in balance not be worth the time devoted to it, courts considering the admissibility of special assistance to the jury on credibility questions generally base their decision on either the relevance or prejudicial impact of such assistance" (P-II Interview,2019).

According to another defense attorney:

> "A growing number of trial judges and magistrates Kenya admit that expert witness testimony does satisfy the helpfulness and prejudice standards of admissibility. While some appellate courts have held that the exclusion of expert testimony under certain circumstances is reversible error, most appellate courts commit the question firmly to the trial court's discretion" (DA-II Interview, 2019).

The respondent further observed that:

> "Courts that have admitted expert testimony on credibility have found that the testimony meets the assistance requirement because it is not required that a question be unanswerable by the trier of fact before [such testimony] can be admitted, but only that it will be of assistance This approach reflects a principle of "partial assistance" and is consistent with the notion that the jury must still evaluate, organize and weigh the raw credibility information on even the most common of questions. Under this approach, the purpose of credibility testimony is to facilitate these jury tasks…….Moreover, it is well-established that the trial judge has broad discretion in admitting or excluding expert testimony. When the issue of admissibility is debatable, the trial judge or Magistrate's decision will prevail…..The standard of review of trial court decisions to admit or exclude evidence is whether the decision was "clearly erroneous"(DA-II Interview, 2019).

The study next sought to find out on what basis can the trial court rejected the defendant's offer of expert witness testimony about the unreliability of eyewitness testimony.

One defense attorney stated that:

> "In light of the principles of Section 143 of Evidence Act (Cap 80) favoring admissibility and allowing the trial court discretion, one might expect that many trial courts would be receptive to the occasional admission of expert testimony on credibility.….Admissibility of expert is at the discretion of trial judges or magistrates and he/she may exclude expert testimony on the ground that it is irrelevant and fails to assist the jury in evaluating the credibility of witnesses. These trial judges or magistrates see such testimony as 'needless presentation of cumulative evidence.'…..In particular, trial judges or magistrates may generally focus on either the redundancy of the data vis-a-vis the existence of traditional methods of assistance, such as cross-examination and the opportunity to observe witness demeanor during the court session" (DA-III Interview, 2019).

The respondent further states that:

> "A trial judge or magistrate may exclude testimony about witness credibility because it merely duplicates the jury function of judging the facts of the case….The testimony is cumulative because, in most cases, the common experience of the jury should suffice as a basis for assessments of credibility. Under such a circumstance, expert testimony is believed to "muddy the waters"' by

providing information that the jurors already possess" (DA-III Interview, 2019).

One Prosecutor volunteered that:

> A trial judge or magistrate who strongly subscribe to alternative "equivalent safeguards" will insist on cross-examination, which in their view, when combined with other traditional safeguards, completely satisfies the jury's need for information upon which to base credibility assessments of eyewitness" (P-IV Interview, 2019).

However the respondent reiterates that:

> The sufficiency of traditional safeguards while superficially appealing is misguided. In rejecting the expert witness testimony on these grounds, a trial judge or magistrate do not view the purported assistance as advancing the evaluation process but rather as an additional source of information that the jurors have already……Such a trial judge or magistrate fail to recognize, however, that the expert's empirical data examines the evaluation process itself. The purpose of the data is to assist them in organizing the raw credibility information they derive from the traditional safeguards such as cross-examination, attorney arguments, and witness demeanor during the court trial……..Looking at this issue critically, first. Defense attorneys and judges cannot effectively provide this organizational assistance because they are not familiar enough with the psychological data to communicate it to the jury properly. Second, the task is better left to an expert who deals regularly with the data and is better able to explain it to the jury, particularly with respect to its counter-intuitive components" (P-IV Interview, 2019).

One Defense attorney opined that:

> "While expert witness assisted determinations of eyewitness credibility have often been rejected on the ground that special assistance from experts provides no appreciable help, the most prevalent ground of exclusion has been the prejudicial impact of the expert testimony… If expert testimony is irrelevant or unfairly prejudicial or if it runs foul, for instance, a trial judge will not admit it in evidence…….Many trial judges and magistrates exclude expert testimony about eyewitness credibility because it merely duplicates the their perceived function of judging the facts of the case…..the testimony is cumulative because, in most cases,

their common experience should suffice as a basis for assessments of eyewitness credibility…….expert testimony are believed to "muddy the waters"' by providing information that the jurors already possess" (DA-I Interview, 2019).

According to another defense attorney:

> The balancing of the need to assist the trial judge against the danger of unfair prejudice and other considerations has proven to be central to most courts' decisions about the admissibility of expert testimony……Appellate courts in Kenya that have articulated rationales for admitting or excluding expert witness evidence invariably have emphasized either the testimony's helpfulness or one or more of the countervailing concerns listed in Section 143 of Evidence Act (Cap 80). Under the Act, "substantially outweighed" standard, the balance between prejudice and probative value is generally to be struck in favor of admissibility" (DA-III Interview, 2019).

One prosecutor said that:

> I see no reason to risk influencing the trial judge credibility determination by allowing expert opinion testimony on a witness's believability while the trial judge has broad discretion to determine the admissibility of expert witness testimony…..The standard of appellate review of a trial judge's decision on the admissibility of expert witness testimony is abuse of discretion or manifest error….. If expert testimony is erroneously admitted, it only constitutes reversible error if the admission more probably than not materially affected the verdict" (P-II Interview, 2019).

According to this respondent, a trial court may exclude special assistance for eyewitness credibility assessments because of a different type of redundancy: the existence of alternative safeguards. These safeguards, including cross-examination and the trial judge or magistrate ability to observe witness demeanor, purportedly render expert testimony superfluous.

> "If a trial court deems that expert testimony on eyewitness reliability, for example, is based on an unreliable area of study, or that the trial judge or magistrate is likely to give it disproportionate weight, the trial court will refuse to admit it on the ground that its prejudicial effect substantially outweighs its probative value. Some trial courts have also been concerned that such testimony could prove costly,

prolong a trial, and still mislead the jury by presenting "extraneous information having an aura of scientific credibility.

The reliability of scientific evidence provides the threshold prejudice inquiry in determining its admissibility. Some judges reject testimony about eyewitness credibility because the techniques used to derive the expert witness conclusions about eyewitness credibility may be insufficiently reliable. They reason that admission of unreliable conclusions would be unfairly prejudicial because it might mislead the jury, which is unlikely to fully appreciate its defects" (P-II Interview, 2019).

The respondent further states that:

Trial courts have also excluded expert testimony about eyewitness credibility as unfairly prejudicial on the ground that the trial judge or magistrate will accord it exaggerated importance. The expert would usurp the role of the jury **by** substituting the conclusions of the expert for the independent conclusions drawn b**y** the lay jurors. Arguably, this transfer of decision-making is institutionally improper. Furthermore, it is more likely to occur as the expert witness's testimony approaches the ultimate issues that the trial court must decide…….The trial court may overestimate the value of the testimony for several reasons. The trial court may simply defer to the expert witness's judgment because of his/her qualifications and stature. The trial court may adopt the expert witness's conclusions because he/she already has performed the work of thinking through the problem.

Unfair prejudice may also arise when trial judge assume that experts witness will adopt a bipartisan, objective stance in educating them about their area of expertise.

Expert witness, however, may cross the line between educator and advocate and trial judge or magistrate may not realize or believe that the expert is advocating, rather than simply educating…. The point is, expert witness testimony must conform to a generally accepted explanatory theory to be admissible.

Ironically, an expert will may tend to reinforce trial judge or magistrate decisions when weak and strong identification circumstances exist. When weak circumstances exist, the expert reinforces the lack of eyewitness reliability and

vice versa. This result, of course, is not always beneficial or fair for a criminal defendant.

Expert witness opinions on the truthfulness of an eyewitness should generally be excluded because weighing the truthfulness of an eyewitness is a matter reserved exclusively to the fact finder. To permit the testimony to be admitted for this purpose would be an invitation for the trier of fact to abdicate its responsibility If a trial judge cannot distinguish between the two roles an expert witness can play, ethical constraints on the expert and cross-examination provide the only safeguards against misleading the trial judge" (P-II Interview, 2019).

According to another Prosecutor:

"Trial courts have excluded expert witness testimony about credibility on the ground that it confuses rather than clarifies the issues at trial…….. This is most likely to occur when opposing parties each present their own expert witness testimony. Such a 'battle of the experts' requires a trial judge to decide which of the expert witnesses is more credible…….Paradoxically, the trial judge or magistrate must then decide which expert witness testimony to believe, while the experts are testifying about how to determine the believability of other witnesses; eyewitness" (P-IV Interview, 2019).

One defense attorney was of the opinion that:

"Despite the reliance on various forms of prejudice as a basis for excluding expert testimony about credibility, several weaknesses are apparent in using these rationales for excluding psychological testimony. First, in light of the law favoring the admissibility of expert testimony helpful to the trial judge, the mere possibility of abuse should not foreclose its use, but instead suggests that a case-by-case assessment is preferable…….In addition, the potential for substitution of judgment, obfuscation and over-reliance on the expert witness testimony can be guarded against through the traditional alternative safeguard including cross examination. Allowing each side to present experts' testimony regarding eyewitness credibility would raise even more issues for the trial judge or magistrate. Thus, we have a 'battle of the experts,' and the trial judge or magistrate must be allowed to make credibility determinations and weigh the conflicting

evidence in order to decide the likely truth of a matter not itself initially resolvable by common knowledge or lay reasoning….Beside, Evidence Act (Cap 80) Laws of Kenya favor admissibility over exclusion of helpful expert testimony" (DA-II Interview, 2019).

One Prosecutor observed that:

"Expert witness testimony assists during prosecution and the trial procedure and is not unfairly prejudicial. Usually there are methods to reduce the prejudicial impact of expert witness testimony before admitting it. These methods include limiting the subject areas of the specific testimony……..However, the most commonly admitted form of expert testimony on credibility concerns the common or general characteristics of a group of people….Courts have found this form of testimony to have the least prejudicial impact. The testimony usually instructs jurors on how to assess properly the credibility of a certain type of witness or explains that certain behavior is relatively normal……. It is axiomatic that while general testimony is less prejudicial than specific testimony about other witnesses, general testimony also is less probative. This type of testimony also relates circumstantially to the credibility of witnesses" (P-III Interview, 2019).

According to one defense attorney:

Some trial judges in Kenya have admitted expert witness testimony on policy grounds that are not in the plain language of the applicable rules of the evidence. The most prevalent policy rationale upon which expert witness testimony has been admitted is centrality - how important the evidence is to the outcome of the case. In these trials, eyewitness credibility is exceedingly important because it is not supplemented by corroborating evidence. Several recent trial court decisions in Kenya illustrate the centrality issue. In these cases, the trial courts have held that the exclusion of "helpful" expert witness testimony on eyewitness credibility constituted reversible error" (DA-I Interview, 2019).

One Prosecutor similarly observed that:

"When an eyewitness identification of the defendant is a key element of the prosecution's case but is not substantially corroborated by evidence giving it independent reliability, and the defendant offers qualified expert witness

testimony, for instance, on specific psychological factors shown by the record that could have affected the accuracy of the identification but are not likely to be fully known to or understood by the trail judge or magistrate, it will ordinarily be error to exclude that the expert witness testimony… The centrality analysis has been applied to the credibility of more than just eyewitnesses to murder."

The respondent further observes that:

> The centrality approach of admissibility of expert witness testimony in considerations of the importance of the offered evidence or the lack of corroboration in a trial courts is inconsistent with a traditional evidentiary approach. The centrality analysis may be characterized as a compromise between the trial judge competence, experience, common sense and empirical approaches to evaluating eyewitness credibility. It is the most successful compromise between the two extremes because it only indirectly confronts the dual evidentiary concerns of assistance and prejudice, switching the relevant question from-Can the jury be assisted by this information?" to "How important is the credibility determination to the outcome of the case?.....When expert testimony is admitted under this approach, the trial court is stating in essence that whatever prejudice may be associated with the testimony is outweighed by the importance of an eyewitness credibility assessment to a just resolution of the case."

4.12 REFLECTION ON EXPERT WITNESSS TESTIMONY DURING A COURT TRIAL SESSION

Often, the credibility of a particular eyewitness is bolstered by corroborative evidence. Occasionally, there will be testimony from expert witness about the general reputation for truth and veracity of a particular eyewitness. To determine the impact of eyewitness fear during interrogation, including cognitive interviewing techniques, the questionnaire was designed to elicit respondents' reflection on expert witnesses in the trial court session on a 5-point Lickert scale.

Table 4.7: Representation of the reflection on expert witness testimony during a court trial session

Proposition	SD	D	M	A	SA	Total		Mean
An expert witness testifies on a technical aspect of the crime that requires explanation or a knowledgeable expert's opinion	0	0	0	12	8	100	20	4.48
Expert's testimony is based on sufficient facts or data and physical evidence and is used to bolster or diminish the jurors' opinions about the credibility of one or more witnesses.	0	0	4	12	4	100	20	4.46
Professional degrees, titles, training, experience, knowledge, positions, and other professional accomplishments are all important considerations in assessing the credibility of an expert witness	0	0	0	10	10	100	20	4.48
Expert witness tends to reinforce trial judge or magistrate decisions when weak and strong identification circumstances exist. When weak circumstances exist, the expert	0	0	0	12	8	100	20	4.48
reinforces the lack of identification, and vice versa.								
According expert witness testimony exaggerated importance is unfairly prejudicial	2	4	0	8	4	100	20	3.87
Expert witness testimony "usurp the trial judge or magistrate's function"	10	10	0	0	0	100	20	4.46

Expert's witness empirical data assist jurors in organizing the raw credibility information they derive from the traditional safeguards such as cross-examination, attorney arguments, and witness demeanor.	0	0	0	11	8	100	20	4.68
Special assistance from experts witness provides no appreciable help to the traditional safeguards such as cross-examination, attorney arguments, and witness demeanor.	10	10	0	0	0	100	20	4.46
Expert witness personality perceptions and outstanding credentials makes them reliable	0		0	10	10	100	20	4.13
Trial judges commonly view the testimony of expert witnesses as factual simply because experts are perceived as authorities on the subject in question	0	0	0	10	10	100	20	4.48
Trial judges take professional reputation into consideration in weighing the credibility of an expert witness.	0	0	4	12	4	100	20	4.46
Expert witnesses are also allowed to speculate on the case in a way that is not permitted for any other type of witness	2	6	0	8	4	100	20	3.87
Trial judges relied on their personal perceptions of the expert witness based on his/her outstanding credentials in the field instead of the information he/she presented at trial in making their decision	5	10	0	2	4	100	20	4.46

Experts reliably apply scientific, technical, experience principles and methods to the facts of the case.	0	0	0	12	8	100	20	4.46
Expert witnesses can explain scientific research in a more flexible manner, by presenting only the relevant research to the trial judges or magistrate	1	1	0	10	8	100	20	4.46
Expert witness are liberally biased towards criminal defendant	6	4	0	5	5	100	20	3.48
In some cases, trial judges have been known to consider professional credentials a more important factor in their verdict decision than the actual information presented by the expert witness about the evidence/case.	2	11	4	2	1	100	20	4.46
Conflicting testimony by opposing experts may lead to confusion among the jurors	0	1	0	10	9	100	20	4.13
The benefits of expert testimony are offset somewhat by the expense.	0	0	0	12	8	100	20	4.48
Expert witnesses agreed to be involved more in civil than criminal cases	0	0	4	12	4	100	20	4.46
Having a poor professional reputation likely invalidates any professional credentials that would lend credibility to the witness as an expert in the field/subject	0	0	4	12	4	100	20	4.46
Trial judges or magistrates have discretion to determine whether the potential benefits of expert testimony outweigh the cost	0	0	0	10	10	100	20	4.48

The reliability of eyewitness identification is within the knowledge of trial judges and expert testimony generally would not assist them	2	10	1	4	3	100	20	4.48
Expert witnesses who explain the complications of eyewitness identification can be expensive	6	4	0	5	5	100	20	3.48
Expert testimony on the reliability of witnesses would only divert the jury from the true issues of the case	2	10	1	4	3	100	20	4.48
Expert witnesses is uncommon, especially in state courts that rarely find denial of expert assistance on eyewitness matters to be a due process violation.	2	4	2	6	5	100	20	2.87

According to table 4.6 above, majority of the respondents agreed that trial judges or magistrates commonly view the testimony of expert witnesses as factual simply because experts are perceived as authorities on the subject in question, that Professional degrees, titles, training, experience, knowledge, positions, and other professional accomplishments are all important considerations in assessing the credibility of an expert witness and therefore trial judges or magistrates have discretion to determine whether the potential benefits of expert testimony outweigh the cost as was shown by a mean score of 4.48respectively. A good number of the respondent (mean=4.46) agreed that having a poor professional reputation likely invalidates any professional credentials that would lend credibility to the witness as an expert in the field/subject. Respondents further agree that conflicting testimony by opposing experts may lead to confusion among the jurors as was shown by a mean score of 4.13.

The findings also shows that majority (mean=4.46) of the respondent disagree with the proposition that trial judges or magistrates relied on their personal perceptions of the expert witness based on his/her outstanding credentials in the field instead of the information he/she presented at trial in making their decision and that In some cases, trial judges have been known to consider professional credentials a more important factor in their verdict decision than the

actual information presented by the expert witness about the evidence/case(mean=4.46). The finding further shows that respondents disagreed with the proposition that the reliability of eyewitness identification, is within the knowledge of trial judges and expert testimony generally would not assist them as was shown by a mean score of 4.48.

Results from the binary logistic regression analysis showed a significant regression model overall, χ^2 (10) = 80.53, $p < .001$. However, Eyewitness credibility was most significantly predicted by explanatory variables "Expert's witness empirical data assist trial judge or magistrate in organizing the raw credibility information they derive from the traditional safeguards such as cross-examination, attorney arguments, and witness demeanor", $B = 1.16$, Exp(B) = 3.20, $p < .001$, showing the effectiveness and reliability of expert witness (forensic psychologist) during sentence mitigation (insanity defense).

Next, an OLS regression predicting the effectiveness and reliability of expert witness (forensic psychologist) during sentence mitigation (insanity defense) between explanatory variable "Expert witnesses can explain scientific research in a more flexible manner, by presenting only the relevant research to the trial judges or magistrate" and explanatory variable "Experts reliably apply scientific, technical, experience principles and methods to the facts of the case." The overall regression was significant, F (10, 137) = 11.39, $p < .001$, $R2 = .45$ (see table 8).

Explanatory variable "Expert witness are liberally biased towards criminal defendant" was not significant, $\beta = .01$, t (137) = .14, $p = .88$. Other explanatory variables that were not significantly related to the effectiveness and reliability of expert witness (forensic psychologist) during sentence mitigation (insanity defense) included "Expert testimony on the reliability of witnesses would only divert the jury from the true issues of the case", $B = .25$, Exp (B) = 1.28, $p = .14$, "The reliability of eyewitness identification is within the knowledge of trial judges and expert testimony generally would not assist them", $B = -.17$, Exp (B) = .84, $p = .27$, "Expert witnesses who explain the complications of eyewitness identification can be expensive", $\beta = .14$, $t(4) = 1.61$, $p = .11$, "Expert witnesses are also allowed to speculate on the case in a way that is not permitted for any other type of witness" and "Expert witness testimony "usurp the trial judge or magistrate's function", $\beta = -.07$, $t(5) = -1.00$, $p = .32$ respectively. This suggests that this particular explanatory variable is not predictor of on the effectiveness and reliability of expert witness (forensic psychologist) during sentence mitigation (insanity defense).

4.13 DISCUSSION

As the majority key informant respondent in this study noted, the criminal justice system in Kenya provides safeguards to encourage the general reliability of evidence, including the right to be confronted with opposing witnesses and cross-examination of witnesses. In theory, the right to be confronted with opposing witnesses and the right to cross-examine provide an opportunity to reveal weaknesses and inconsistencies in a witness's testimony and to examine a witness's credibility. Often, trial courts refer to cross-examination as a protection against unreliable eyewitness identification testimony. In particular, courts claim that during cross-examination, the defense can highlight parts of the eyewitness's testimony that undermine the reliability of the identification. Thus, the trial Court's current approach is to trust that the built-in vehicle of cross-examination will help the trial judge or magistrate determine the reliability of eyewitness testimony.

However, according to the findings of this study, this particular safeguard is not wholly effective for eyewitness identification: whereas cross-examination developed with a truth-seeking function, however, according to the data presented in the preceding section, cross-examination sessions are characterized with the using multiple question types including complex questioning styles the affect witness memory recall and accuracy. Based on the literature review it was predicted from that cross-examination characterized with open questions would produce more accurate responses than cross-examination characterized with both closed and forced-choice questions. Open ended questions are associated with significantly more correct details, and recall accuracy was also higher for these questions, compared to closed and forced-choice questions in both conditions. However, the findings of this study show that cross-examination exposes witnesses to closed and forced-choice questions, interrogative and suggestibility to misinformation through complex questioning styles and aggressive interviewing tactics that include shift question. Cross-examination is a challenging experience for witnesses of any age. Extensive research has demonstrated that difficult and complex question types adversely affect accuracy at both the investigative and evidentiary stages of the criminal justice process (see Chapter 2 for literature and discussion).

According to Gudjonsson (2013) and Ridley & Gudjonsson, (2013), after exposure to misinformation, witnesses acquiesce to interviewers' suggestions, but reject the information internally; reject the interviewers' suggestions verbally, and rely on their own recall; or incorporate the misinformation into their own memory and report it as part of their evidence. Participants were more likely to concede the possibility of being incorrect (a "maybe"

response). Such errors in testimony can negatively affect witness credibility in court, regardless of whether the rest of the testimony is accurate (Pozzulo & Dempsey, 2009; Tenney et al., 2007). Similarly, shift questions are multi-part questions that specifically challenge a witness on the veracity of their evidence (Zajac et al., 2003; Zajac & Hayne, 2003).

The findings indicate that cross examination has effect on recall accuracy and is a significant predictor of eyewitness reliability. Cross-examination, specifically, increase witness's testimony suggestibility. The results of the analysis suggest that even when the examined covariates were taken into consideration, structured interview technique had a significantly higher rate of use than cognitive interview technique during witness and victim interrogation.

Based on the evidence in the literature on the negative effect of challenging questioning styles (see Chapter 2), there has been a growing campaign amongst academics and practitioners to move towards the use of best practice interview techniques during cross-examination (Henderson, 2012; Pigot, 1989; Plotnikoff & Woolfson, 2012; Spencer & Lamb, 2012). Such a move would benefit young and vulnerable witnesses in particular. Although the accuracy of adults and older children is impaired by cross-examination (Valentine & Maras, 2010; Zajac & Hayne, 2006), the accuracy of young and vulnerable witnesses is most negatively affected (Davies & Seymour, 1998; Jack & Zajac, 2014; Kebbell et al., 2003; Kebbell et al., 2010; Kebbell, Hatton, Johnson, & O'Kelly, 2001; Kebbell & Johnson, 2000; O'Neill & Zajac, 2013; Perry et al., 1995; Walker, 1993; Zajac & Hayne, 2003; Zajac, Jury, & O'Neill, 2009; Zajac et al., 2012).

The logistic regressions were fit to the data in order to illuminate the relationships between the explanatory variables and the response variables. Logistic regression model provides evidence to support the hypothesis that applying the main techniques of C.I.T; the investigative interviewers will minimize inaccuracies in both adult and pre-adult testimony accounts. These findings are inconsistent with Fisher and McCauley (1995) who suggested that the effects of CI reflect both improved memory search and improved communication (Memon & Stevenage, 1996). This less attention paid by the police investigators to the basic cognitive interviewing (CI) principle allows one to assume that the witness interviewing sessions were effective and that the interviews conducted by the police officers were of a lower quality.

An interview is an interaction between two people and memory performance is thus undoubtedly influenced both by the technique used to search memory and rapport with the person who is guiding the retrieval process (Memon, Wark, Holley, Bull and Koehnken,

1996c). Interpretation of these findings would be that police officers have an *a priori* conception of what the write-up of a testimony should look like (Fisher *et al.,* 1987; Ginet *et al.,* 1998), in terms of style (especially judicial and legal terminology), background (order of events, description of persons involved, etc.), and length.

If legal systems are going to minimize eyewitness error, law officers must identify the relevant eyewitness factors at the crime scene and conduct proper eyewitness interviews and identification procedures. Moreover, because memory is a reconstructive process, once law officers conduct a biased eyewitness interview or identification procedure they generally cannot correct their errors by subsequently conducting proper procedures (Wise, Safer and Maro, 2011).

The findings of this study indication that Expert's witness empirical data assist trial judge or magistrate in organizing the raw credibility information they derive from the traditional safeguards such as cross-examination, attorney arguments, and witness demeanor; showing the effectiveness and reliability of expert witness (forensic psychologist) during sentence mitigation (insanity defense). This study corroborates earlier studies. The fragility of eyewitness memory and lack of reliability in eyewitness testimony established primarily by Loftus (1979, 2003, 2005) has gained widespread acceptance, and as a result, the testimony of memory experts in criminal cases involving eyewitness identifications is now commonplace (Sporer et al., 1995).

According to Cutler et al. (1989), for example, eyewitness expert testimony can produce three effects: (1) no effect because the trier of fact does not understand the expert testimony or is not persuaded by it; (2) enhanced skepticism, which causes the trier of fact to disbelieve all eyewitnesses no matter how good the eyewitness conditions; and (3) enhanced sensitivity, which educates the trier of fact about eyewitness factors and how to apply them to the facts of the case. Clearly, the desirable effect of expert testimony or any other legal safeguard is to increase the trier of fact's sensitivity to eyewitness testimony. The most common effect of eyewitness expert testimony is to increase jurors' skepticism of eyewitnesses. Leippe (1995) further observed that "Sensitivity appeared to be more the exception than the rule" (p. 176).

CHAPTER FIVE

SUMMARY CONCLUSION AND RECOMMENDATION

5.0 Introduction

Wrongful convictions are not only a tragedy for innocent defendants and their families but also for the victims of additional crimes that occur because the true perpetrator of a crime has not been apprehended. Moreover, wrongful convictions undermine the public's faith in the law especially when the wrongful convictions are preventable.

5.1 Summary

Three main conclusions can be drawn from the data presented in this study. The first objective of this study was to assess the influence of cross examination on reliability of eyewitness testimony. Cross-examination tactics in the Kenya adversarial system are purposefully challenging (see Chapter 2 for details). Witnesses are more likely to report contradictory details when asked challenging questions, making their evidence inconsistent and typically less accurate. The findings of this study have therefore replicated observations in the literature that cross-examination reduces accuracy.

The findings indicate that cross-examination has a significant effect on reliability of eyewitness testimony. The findings of this study suggest that the manner in which a witness is questioned has the biggest impact on cross-examination performance. With this in mind, it is clear that the process of cross-examination is in need of reform to protect the quality and accuracy of eyewitness evidence in the Kenyan justice system. The merits of following best practice guidance have been demonstrated in literature review. However, these guidelines are not currently followed in trial court in the Kenya adversarial system as indicated by this study conducted in Nairobi. The findings of this study highlighted the possibility that some witnesses are at a disadvantage when giving evidence in court because of the questioning techniques currently being used to cross examine their testimony.

The second objective was to determine the impact of eyewitness fear during interrogation, including cognitive interviewing techniques. The findings indicate that structured interview (SI) is commonly used by police officers in Nairobi for interrogation of witnesses and victims of crime, based on those sampled in this research.

The third objective was to examine the effectiveness and reliability of expert witness (forensic psychologist) during sentence mitigation (insanity defense). The findings also indicate that some trial courts, judges and magistrates in Nairobi allow an expert witness to testify about the unreliability of eyewitness testimony if the expert testimony is deemed reliable under certain circumstances of the case, which applies to the need for expert evidence. However, other trial courts remain resistant to admitting expert testimony on the unreliability of eyewitness evidence, claiming that eyewitness identification evidence is not beyond the understanding of a trial judge or magistrate.

Further, the study findings suggest that expert testimony on reliability of eyewitness evidence does not have the intended effect of absolutely sensitizing the trial judges or magistrate to make more informed decisions about eyewitness identification accuracy; rather, expert testimony in this area tends to make a trial judge or magistrate generally skeptical of an eyewitness's testimony credibility. Finally, although these safeguards operate after the eyewitness identification has already occurred, some courts have also created safeguards that operate during the eyewitness identification procedure itself, with the goal of facilitating more reliable identification procedures by reducing system variables within the control of the justice system.

5.2 Conclusion

The findings of this study indicate that trial courts often raised the concern that extending experts' role to screening the reliability of eyewitness would usurp the role of the trial judge or magistrate, who traditionally decides the reliability of evidence. According to the findings, safeguards that are part of the adversarial system can aid the trial judge or magistrate in making a determination about the reliability of eyewitness testimony. In particular, the defendant has the right to confront and cross-examine eyewitnesses with the intent of unearthing flaws in the eyewitness's testimony that might shed light on the reliability of the eyewitness testimony. The majority of the respondents claim that the protections built into the court system are sufficient to ensure the reliability of eyewitness evidence, concluding that the majority placed too much faith in these protections. Finally, the state rules of evidence allow the trial judge to exclude relevant evidence if its probative value is substantially outweighed by its prejudicial impact.

5.3 Theoretical relevance

The findings of this study arguably have theoretical relevance, contributing further evidence of the reconstructive nature of memory and support a Fuzzy-Trace Theory of memory (Brainerd et al., 1985; Brainerd & Reyna, 2004; Brainerd et al., 1990). Fuzzy-Trace Theory provided the theoretical rationale for the use of cognitive interview technique to improve memory recall (see Chapter 2). This theory accounts for the loss of information from memory as a result of retrieval failures due to either decay of the original memory trace, the retrieval cue, or both the memory trace and retrieval cue. Thus, a best practice interview(i.e. cognitive interview-CI) in advance of giving evidence in court would engage the witness in active recall and may be a more effective means of improving memory trace strength and accessibility (Chan & Langley, 2011; Danker & Anderson, 2010; Ozubko & Fugelsang, 2011; Roediger & Butler, 2011).

5.4 Recommendations

Reforms in cross examination practices have been achieved in other jurisdictions. Western Australia is a positive example where a concerted effort has been made towards improving the experience of young and vulnerable witnesses in criminal proceedings. Interviewers in Western Australia are expected to adhere to "Guidelines for Cross-Examination of Children and Persons Suffering a Mental Disability", introduced in 2010 (Jackson, 2012).

These guidelines advocate the use of best practice interviewing techniques, including the use of open and non-challenging question types. In the UK, the Advocates Training Council (ATC) is working towards a similar goal. The Advocates Gateway (www.theadvocatesgateway.org), launched in 2013, provides toolkits and guidance on how to interview young and vulnerable witnesses appropriately, to avoid the negative effects of cross-examination. Current toolkits are based on empirical evidence and the experience of Registered Intermediaries, who observe first-hand the problems that inappropriate questioning can cause for vulnerable witness groups.

In addition to changing the style of cross-examination, further steps can be taken to protect the most vulnerable of witnesses throughout the adversarial process. Pre-recording a witness' evidence in advance of a trial, including the cross-examination and re-examination of that evidence, allows a witness' testimony to be fully captured during the investigative stages of a case. This removes any requirement for the witness to attend court and prevents lengthy delays interfering with their recall, thereby improving the quality and accuracy of evidence. From a welfare perspective, pre-recording evidence also allows the witness, or victim, and his/her

family to move on from their experience and begin to overcome any emotional trauma they have experienced without the additional stress of a potential court appearance (Cossins, 2012; Spencer & Lamb, 2012).

Pre-recording of evidence has been achieved in Western Australia. However, in the UK, the same progress has not been made towards introducing this change in the adversarial process. The Youth Justice and Criminal Evidence Act 1999 (YJCEA 1999), on the recommendation of the Pigot Report (1989) makes allowances in the law to make giving evidence in court easier for young and vulnerable witnesses (see Chapter 2). This includes a provision in Section 28 of the YJCEA 1999 which allows for the pre-recording of cross-examination interviews. There is increasing demand for this provision to be enacted. Fifteen years after this law was passed, this provision is now being introduced for young and vulnerable witnesses in three pilot areas in England (Leeds, Liverpool and Kingston-upon-Thames) a positive step towards reform (Casciani, 2013). As it has taken so long for Section 28 to be introduced in a pilot scheme, it is likely to be much longer before pre-recording practices become standard for all young and vulnerable witnesses in England and Wales. Furthermore, pre-recording cross-examination is insufficient on its own to counter the negative effect of this style of interviewing on eyewitness testimony.

The nature of questioning must also be changed, as the example from Western Australia demonstrates (Spencer & Lamb, 2012). Therefore the negative effects of cross-examination documented in this study and in the literature will remain an issue for witnesses of all ages. Reforming the style of cross-examination interviewing techniques could provide benefits which extend beyond improved recall accuracy to the welfare of victims and eyewitnesses. The emotional distress that cross-examination can cause a witness of any age, particularly the young and vulnerable, is clearly evidenced in recent cases.

Historically, cross-examination has been portrayed as a battle of wits and words. It will therefore be necessary to change the culture around cross-examination as part of any reform to ensure that future defense attorneys/lawyers are trained to question witnesses more appropriately (Slapper, 2007; Wellman, 1903; 1997). This will help to ensure best evidence can be heard, not the evidence a lawyer wants to be heard.

From an applied perspective, the findings on the impact of eyewitness fear during interrogation, including cognitive interviewing techniques suggests that there may be

widespread benefits from the development and introduction of best practice guidance and training for police officers. By standardizing cross examination tactics, the potentially damaging practices, as identified in this research, may be reduced or prevented entirely. The benefits of standardization are evident from other areas of the criminal justice system which have already undergone reform.

Evidence-based best practice guidance has improved procedures and increased the quality and accuracy of eyewitness evidence in the context of both investigative interviewing (Achieving Best Evidence 2007; 2011) and identification parade procedures (Horry et al., 2013). These are two key examples where empirical research informed the development of guidance to the continued benefit of eyewitnesses and the wider criminal justice system.

Because the principal participants in criminal justice systems have limited knowledge of eyewitness factors, it is essential that legal systems educate them about eyewitnesses. Law schools should teach law students about eyewitnesses. For example, law courses such as criminal law and criminal procedure could include in-depth information about the different types of eyewitness error, the causes of eyewitness error, and the legal safeguards needed to minimize eyewitness error. Judges' and attorneys' training should include extensive instruction about eyewitnesses. Law enforcement agencies need to incorporate detailed information about eyewitnesses when they train law officers. Professional organizations should offer courses about eyewitnesses for psychologists and psychiatrists who testify about it.

Because conducting proper eyewitness interviews and identification procedures is essential to reducing eyewitness error, legal systems should view eyewitness evidence as a type of trace evidence, like DNA or blood evidence. Consequently, the use of scientific procedures in producing eyewitness evidence should be an important factor in determining whether eyewitness evidence is admitted in criminal cases. In addition, like other types of trace evidence, legal systems should generally require law officers who collect eyewitness evidence to be trained and certified in scientific procedures for conducting eyewitness interviews and identification procedures. More pressure needs to be exerted on legal systems to institute proper eyewitness interviews and identification procedures. Potential sources of influence on legal systems to implement proper procedures include legislation, court decisions, expert testimony, and media attention about the problem of eyewitness error.

It is clear that witnesses play a very crucial role in bringing criminals to justice in any criminal justice system. However, witness intimidation is a behavior that strikes at the heart of the justice system itself. The protection of witnesses practice in Kenya is set out in Section 6 of the Witness Protection Amendment Act, 2010. That being the case, the importance of an effective witness protection regime need not be emphasized. The role of the witness protection unit, its mandate and its structure needs to be called into question when examining the efficiency of such a programme.

Psychologists should work closely with legal professionals in developing and testing eyewitness reforms. Legal professionals have expertise, knowledge, and experience that psychologist's lack, and their skills and knowledge are essential to creating effective reforms that have strong ecological validity. Furthermore, legal professionals must deal with the adverse consequences of eyewitness reforms such as administrative difficulties in implementing them, increased costs, and fewer accurate eyewitness identifications. Therefore, it is vital that legal professionals are involved in developing and testing eyewitness reforms so they are motivated to successfully implement them despite their problems.

Many law officers, prosecutors, and even some judges view eyewitness reforms with suspicion because they believe that they only benefit the defense, will primarily result in guilty defendants going free, and do not take into account the realities of a criminal justice system. Accordingly, psychologists need to do a better job of educating legal professionals how reforms can benefit them. For example, conducting proper eyewitness interviews and identification procedures substantially strengthen prosecutors' cases, help alleviate increasing trial judges and magistrates concerns about the reliability of eyewitness testimony, and reduce defendants' use of eyewitness expert testimony. Psychologists should also conduct more field studies to ensure that eyewitness reforms have strong ecological validity. Sole witness testimony needs corroboration with expert witness assessment report to be more credible and give fairness in the trial judgment.

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APPENDICES

Appendix I: Cover Letter

Dear Sir/Madam,

I Muchemi James Kihara, a master of Psychology (Forensic) student from the U.O.N is carrying out a survey on "Exploring the significance of reliability of the effects of eyewitness testimony during investigations and in the trial process."

Kenya's Criminal Justice being adversarial in nature implies that the testimonies from eyewitnesses in terms of identification or giving a detailed account of events of crime forms the basis of conviction or acquittal by the jury.

Reliable eyewitness testimony increases the probability of jury rendering a correct verdict and a fair trial.

Understanding the factors affecting eyewitness testimony reliability is one of the ways in which wrongful conviction rates can be reduced.

It is the basis of the concerns highlighted above that this survey is intended to justify. Your honesty in response to the questions in this questionnaire is very crucial to 4 reliability and validity of this interview.

The participants will remain anonymous and the information provided will be treated with utmost confidentiality.

I highly appreciate your participation and betterment of our criminal Justice System

Regards

Muchemi J.K

Appendix II: Questionnaire

INTRODUCTION/DEMOGRAPHIC INFORMATION

1. Please, tell me briefly about yourself?
2. Please tell me about your history in law enforcement?
3. How long have you been in your current position and department?

WITNESS CREDIBILITY

Next, you will be asked to answer questions regarding your perceptions of one of the eyewitnesses. The eyewitness you will answer questions about has been randomly assigned to you and is listed directly below. Please answer the following questions in regards to the indicated eyewitness only, and not your perceptions of any other witnesses you may have seen.

Eyewitness: _____

1. How credible was the eyewitness testimony?

1	2	3	4	5	6	7	8	9	10

Not at all very credible

2. How trustworthy was the eyewitness?

1	2	3	4	5	6	7	8	9	10

Not trustworthy at all very Trustworthy

3. How obligated do you feel to listen to the eyewitness and consider his testimony in your decision?

1	2	3	4	5	6	7	8	9	10

Not obligated at all very obligated

4. What is the impact of demographic characteristics of eyewitness credibility?

Age

1	2	3	4	5	6	7	8	9	10

No impact Strong impact

Gender

1	2	3	4	5	6	7	8	9	10

No impact Strong impact

THE INFLUENCE OF CROSS EXAMINATION ON RELIABILITY OF EYEWITNESS TESTIMONY

1. On average, what percentage of the witnesses that you work with will have, their testimony cross-examined during the trial?

a) Sometimes (26-50% of the time)

b) Often (51-75% of the time)

c) Frequently (76-99% if the time)

d) Always

2. Studied sample of cross-examinations transcripts revealed a form of questioning which had specific characteristics, describing it a 'strange language'. In regard to your personal experience during a witness cross examination session, how would you agree with these questioning tactics?

Use a scale of 1-5 where 1= strongly disagree, 2-disagree, 3-moderately agree, 4-agree and 5= Strongly agree

Statement	**1**	**2**	**3**	**4**	**5**
Cross-examination was characterized with features such as the juxtaposition of topics					
Cross-examination was characterized with rapid changes in the direction of questioning					
Cross-examination was characterized with open-ended					
Cross-examination was characterized with questions lacking grammatical or semantic sense					
Cross-examination was characterized with the use of tagging or negative tagging at the end of a statement to encourage witnesses to give short 'yes/no' responses					

5. In regard to your personal experience during a witness testimony cross examination session, how would you agree with these statements? *Use a scale of 1-5 where 1= strongly disagree, 2-disagree, 3-moderately agree, 4-agree and 5= Strongly agree*

Statement	**1**	**2**	**3**	**4**	**5**
Cross-examination has a negative effect on testimony recall accuracy					
Most important application of cross-examination is to distinguish honest from dishonest witnesses.					
The effectiveness of cross-examination is exposing witnesses who deliberately attempt to deceive					

Cross-examination permits styles of questioning that increase eyewitness error					
Cross-examination cannot mislead a honest witness					
Cross-examination can impair the accuracy of adult eyewitness testimony					
Cross-examination increase witness's testimony suggestibility					

IMPACT OF FEAR BY EYEWITNESS DURING INTERROGATION, INCLUDING COGNITIVE INTERVIEWING TECHNIQUES (C.I.T)

1. What factors are predictive of effective victim cooperation with police investigations?
2. What are the challenges that you feel are associated with witness and victim cooperation?
3. Given the importance of cooperation, what measures can be taken by law enforcement to encourage greater citizen cooperation with police investigations?
4. What strategy and tools do you utilize to help with victim and witness cooperation?
5. To obtain testimonies you conduct interviews and often apply interviewing techniques that might optimize the retrieval of information from a witness or a victim. In regard to your interviewing techniques, how would you agree with these statements that describe the interview itself? *(Use a scale of 1-5 where 1= strongly disagree, 2-disagree, 3-moderately agree, 4-agree and 5= Strongly agree)*

Statement	**1**	**2**	**3**	**4**	**5**
The interview revolves around the evidence needed by the investigator					
The interviewer does most of the talking (in the form of asking questions), and the witness merely "helps out" by answering the questions					
The questions are very specific					
Witnesses are discouraged from providing information unrelated to the specific question					
The sequence of the interview is determined by the interviewer, often adhering to a pre-determined written checklist of questions					
Allow witnesses to control the direction of the interview					
The interview opens with a set of formal questions (e.g. witness's name, contact information) to allow the interviewer to fill out his/her crime report					
The interviewer request a free narrative account from the witness					
The interviewer frequently interrupts the witness to ask follow-up questions					
The interviewer often asks leading or suggestive questions to confirm his/her hypothesis about the crime.					
The interviewer using a standardized checklist to guide their questioning of all victims					

Before initiating a free report the interviewer ask the witness or victim to think back to the original event and try and have an image of the event in their mind as they described it.					
The interviewer conduct the interview primarily by asking open-ended questions					
The interviewer asks the witness or victim to return to both the environmental and the emotional context of the scene of the crime					
The interviewer encourages the witness or victim to report every detail they can remember, even partial information.					
The interviewer asks the witness or victim to recount the scene in a different chronological order, for example, from the end to the beginning.					
The interviewer ask the witness/ victim to recount the scene from a different perspective, for example, by telling it from the point of view of another person who was involved					

THE EFFECTIVENESS AND RELIABILITY OF EXPERT WITNESS (FORENSIC PSYCHOLOGIST) DURING SENTENCE MITIGATION (INSANITY DEFENSE)

1. Under what circumstance is the defendant's offer of expert witness testimony about the unreliability of eyewitness testimony admissible in the trial court?

2. On what basis can the trial court rejected the defendant's offer of expert witness testimony about the unreliability of eyewitness testimony?

3. An increasing number of rulings emphasize the value of presenting expert testimony regarding eyewitness identification. What is your level of agreement with the following statements given below as they are reflected relate to expert witnesses during the trial of criminal. *(Use a scale of 1-5 where 1= strongly disagree, 2-disagree, 3-moderately agree, 4-agree and 5= Strongly agree)*

Item	1	2	3	4	5
(a) The expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;					
(b) The testimony is based on sufficient facts or data;					
(c) the testimony is the product of reliable principles and methods;					
(d) The expert has reliably applied the principles and methods to the facts of the case.					

Expert testimony on eyewitness memory and identifications has many advantages over jury instructions as a method to explain relevant scientific framework evidence to the jury. What is your level of agreement with the following statements given below as they are relate to expert witnesses advantages during the trial of criminal.(*Use a scale of 1-5 where 1= strongly disagree, 2-disagree, 3-moderately agree, 4-agree and 5= Strongly agree)*

	1	2	3	4	5
Expert witnesses can explain scientific research in a more flexible manner, by presenting only the relevant research to the jury;					
Expert witnesses are familiar with the research and can describe it in detail;					
Conflicting testimony by opposing experts may lead to confusion among the jurors					
The benefits of expert testimony are offset somewhat by the expense.					

Expert witnesses can convey the state of the research at the time of the trial;					
Expert witnesses can be cross-examined by the other side					
Expert witnesses can more clearly describe the limitations of the research.					
Trial judges have discretion to determine whether the potential benefits of expert testimony outweigh the cost					
The reliability of eyewitness identification is within the knowledge of jurors and expert testimony generally would not assist them					
Expert witnesses who explain the complications of eyewitness identification can be expensive					
Expert witnesses is uncommon, especially in state courts that rarely find denial of expert assistance on eyewitness matters to be a due process violation.					

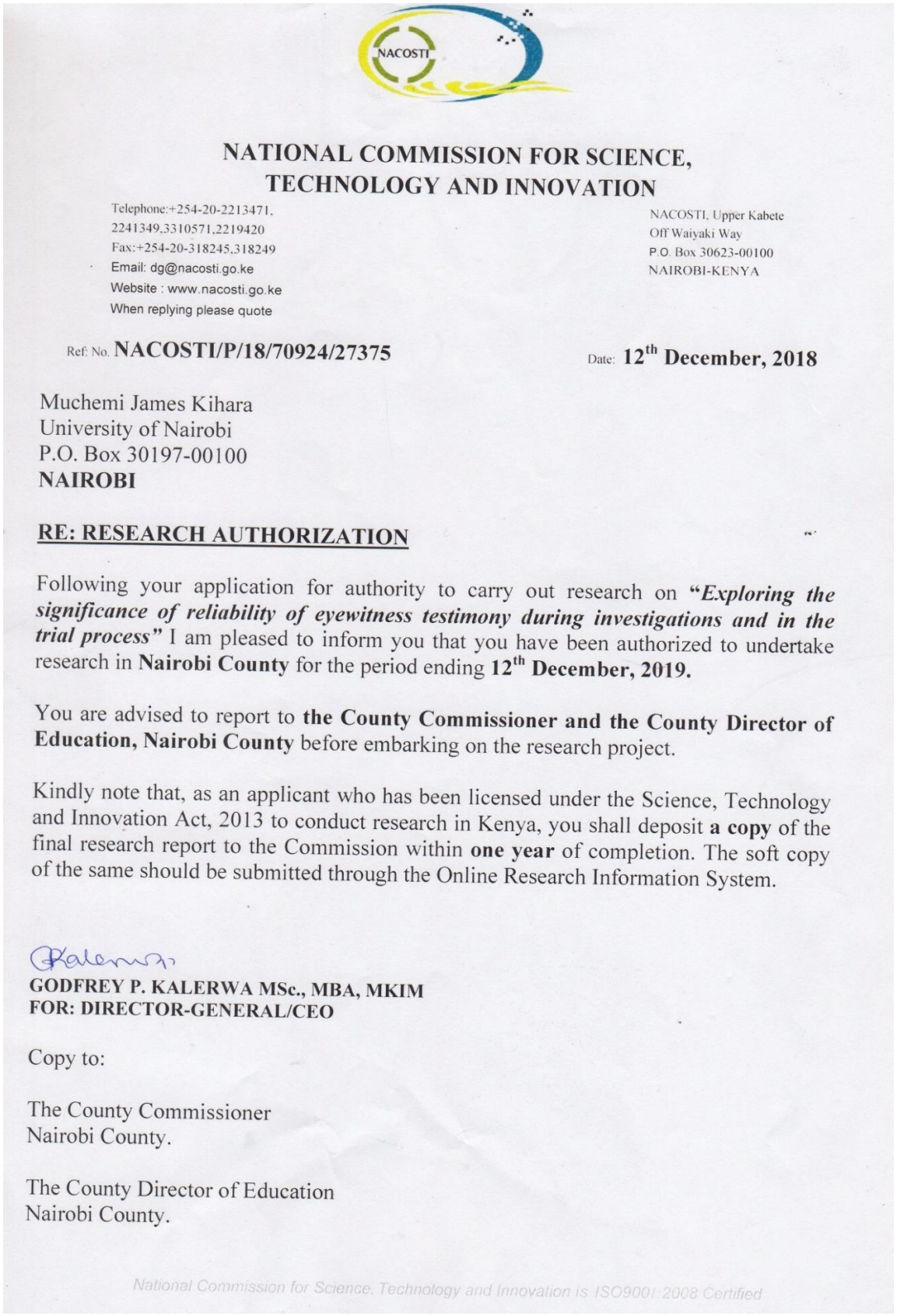
THANK YOU FOR YOU TIME AND CO-OPERATION

Appendix III: Budget

	Unit measure	**Quantity (unit No.)**	**Unit cost**	**Amount**
Proposal development				
Stationary				
Laptop	Pc	1	46,000	46,000.00
Printer	Pc	1	6,000	6,000.00
Printer cartridge	Pc	1	1,500	1,500.00
Modem	Pc	1	3,000	3,000.00
Flash disk	Pc	1	2,000	2,000.00
Internet services during literature review	Months	3	3,000	9,000.00
Proposal writing				
Typing and printing 50 pages @KES 20	Pc	1	50	1,000.00
Photocopying the proposal @KES 5*50 pages.	Pc	8 copies	5	2,000.00
Binding proposal	Pc	8	50	400.00
Sub -total				**69,400.00**
Piloting the data				
Collection tools (transport and subsistence)	Trips	15	200	3,000.00

Travelling costs for pilot testing/project Photocopying data collection tools	Units	5		250.00
Data collection Typing, printing and photocopying data collection tools Transport during data collection Subsistence for supervisor during data collection	Units Trips Trips	5 5 5	169 200 8,000	845.00 1,000.00 19,000.00
Data analysis Project report writing and presentation Typing and printing the report Photocopying and binding/defense/binding copies	Units Pages Pages	1 100 300	5,000 55 55	5,000.00 5,500.00 16,500.00
Sub-Total				**51,095.00**
Total				**120,495.00**

Appendix IV: Research Authorization Letter



NACOSTI

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone:+254-20-2213471, 2241349,3310571,2219420
Fax:+254-20-318245,318249
Email: dg@nacosti.go.ke
Website : www.nacosti.go.ke
When replying please quote

NACOSTI, Upper Kabete
Off Waiyaki Way
P.O. Box 30623-00100
NAIROBI-KENYA

Ref: No. **NACOSTI/P/18/70924/27375**

Date: **12th December, 2018**

Muchemi James Kihara
University of Nairobi
P.O. Box 30197-00100
NAIROBI

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on ***"Exploring the significance of reliability of eyewitness testimony during investigations and in the trial process"*** I am pleased to inform you that you have been authorized to undertake research in **Nairobi County** for the period ending **12th December, 2019.**

You are advised to report to **the County Commissioner and the County Director of Education, Nairobi County** before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit **a copy** of the final research report to the Commission within **one year** of completion. The soft copy of the same should be submitted through the Online Research Information System.

GODFREY P. KALERWA MSc., MBA, MKIM
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioner
Nairobi County.

The County Director of Education
Nairobi County.

National Commission for Science, Technology and Innovation is ISO9001:2008 Certified

Appendix V: Research Permit

THE SCIENCE, TECHNOLOGY AND INNOVATION ACT, 2013

The Grant of Research Licenses is guided by the Science, Technology and Innovation (Research Licensing) Regulations, 2014.

CONDITIONS

1. **The License is valid for the proposed research, location and specified period.**
2. **The License and any rights thereunder are non-transferable.**
3. **The Licensee shall inform the County Governor before commencement of the research.**
4. **Excavation, filming and collection of specimens are subject to further necessary clearance from relevant Government Agencies.**
5. **The License does not give authority to transfer research materials.**
6. **NACOSTI may monitor and evaluate the licensed research project.**
7. **The Licensee shall submit one hard copy and upload a soft copy of their final report within one year of completion of the research.**
8. **NACOSTI reserves the right to modify the conditions of the License including cancellation without prior notice.**

National Commission for Science, Technology and innovation
P.O. Box 30623 - 00100, Nairobi, Kenya
TEL: 020 400 7000, 0713 788787, 0735 404245
Email: dg@nacosti.go.ke, registry@nacosti.go.ke
Website: www.nacosti.go.ke

REPUBLIC OF KENYA

National Commission for Science, Technology and Innovation

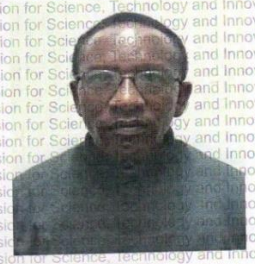
RESEARCH LICENSE

Serial No.A 22317

CONDITIONS: see back page

THIS IS TO CERTIFY THAT:
MR. MUCHEMI JAMES KIHARA
of UNIVERSITY OF NAIROBI, 0-600 NAIROBI,has been permitted to conduct research in *Nairobi County*
on the topic: *EXPLORING THE SIGNIFICANCE OF RELIABILITY OF EYEWITNESS TESTIMONY DURING INVESTIGATIONS AND IN THE TRIAL PROCESS.*
for the period ending: *12th December,2019*

Permit No : NACOSTI/P/18/70924/27375
Date Of Issue : 12th December,2018
Fee Recieved :Ksh 1000



Applicant's Signature

Director General
National Commission for Science, Technology & Innovation

Appendix VI: Research Authorization Letter

Republic of Kenya
MINISTRY OF EDUCATION
STATE DEPARTMENT OF EARLY LEARNING & BASIC EDUCATION

Telegrams: "SCHOOLING", Nairobi
Telephone; Nairobi 020 2453699
Email: rcenairobi@gmail.com
cdenairobi@gmail.com

When replying please quote

REGIONAL DIRECTOR OF EDUCATION
NAIROBI REGION
NYAYO HOUSE
P.O. Box 74629 – 00200
NAIROBI

Ref: **RCE/NRB/GEN/1/VOL. 1**

DATE: **21st June, 2019**

Muchemi James Kihara
University of Nairobi
P O Box 30197-00100
NAIROBI

RE: RESEARCH AUTHORIZATION

We are in receipt of a letter from the National Commission for Science, Technology and Innovation regarding research authorization in Nairobi County on **"Exploring the significance of reliability of eyewitness testimony during investigating and in the trial process".**

This office has no objection and authority is hereby granted for a period ending 12th **December, 2019** as indicated in the request letter.

Kindly inform the Sub County Director of Education of the Sub County you intend to visit.

REGIONAL DIRECTOR OF EDUCATION
NAIROBI
21 JUN 2019
MINISTRY OF EDUCATION
P.O. Box 74629, NAIROBI

JAMES KIMOTHO
FOR: REGIONAL DIRECTOR OF EDUCATION
NAIROBI

c.c
Director General/CEO
National Commission for Science, Technology and Innovation
NAIROBI

ISO 9001 BUREAU VERITAS Certification