**PhD Research Project**

The Integration of Investigation and Forensic Science in Volume Crime

**Supervisor: Professor Jim Fraser** Strathclyde University

**PhD Student: Anika Ludwig** Strathclyde University

            [**Personal profile of Anika Ludwig...**](https://web.archive.org/web/20130704140416/http%3A/www.sipr.ac.uk/people/people-detail.php?ID=171)

**Summary:**

The contribution of forensic science to criminal investigations has grown significantly in recent decades to encompass the investigation of every crime – serious and volume in nature – investigated by the police.

Integration of the distinct specialist roles involved in a criminal investigation (e.g. police officers, scientists, analysts, crime scene examiners, etc.) requires effective management, communication, reciprocal knowledge of roles as well as a uniform desire to cooperate in order to achieve valuable outcomes. Understanding how to optimally exploit these resources, skills and knowledge presents a growing challenge to all parties involved in investigating crimes.

By predominantly focusing on 'volume crime' offences - which in Scotland encompasses: theft, housebreaking (HB), attempted HB, theft of a motor vehicle, theft by opening-lockfast-place; and in England & Wales includes: robbery, burglary dwelling, burglary non-dwelling, taking without owners consent and theft of a motor vehicle, this project aims to identify underlying barriers hindering the efficient exploitation or maximisation of resources available. Understanding and evaluating current staffing procedures and managerial processes such as quality control will also be examined in order to determine areas for improvement.

Current developments in Scottish policing (the implementation of the Scottish Police Services Authority – SPSA) make this an appropriate time to evaluate the current baseline position of forensic services. Through indentifying and recommending best investigative practices it is anticipated that policy will be influenced to achieve more effective outcomes.

**Aims & Objectives:**

For the focus of this study, volume crimes within the category of 'crimes of dishonesty' were chosen mainly because: they offer a potentially large data sample with a variety of forensic evidence; they are the most common offences; they are typically recidivist offences whereby any improvements will affect crime levels as well as reducing police work loads; and finally the low conviction rate currently experienced in this data group should persuade the corporation of several investigative organisations of the mutual benefits of the work.

Focusing on a specifically Scottish context, the integration of forensic science within the investigation of volume crimes will take into account the requirements from all organisations involved (e.g. police, forensic, legal, private, etc.). It is expected that the implementation of the SPSA as a national service for the provision of forensic science will drive a coherent and sophisticated relationship model of practices to increase the understanding of the needs of each of the parties involved. As well as understanding and evaluating current staffing procedures, processes such as quality assurance, quality control and procedures must also be addressed in order to determine areas for improvement.

The main contribution to the policy and practice of forensic science expected from this project involves the analysis of information which has the potential to:

* Improve the understanding and awareness of forensic science potential in the investigation of crimes,
* Identify methods to improve the effectiveness of forensic science in the investigation of volume crime,
* Evaluate the source of barriers hindering the effective use of forensic science,
* Develop guidelines for the optimal use of scientific support services to criminal investigations for police, forensic scientists and the legal community.

**Publications:**

[**The Integration of Investigation and Forensic Science in Volume Crimes in Scotland**](https://web.archive.org/web/20130704140416/http%3A/www.sipr.ac.uk/downloads/AnnRep2011/Volume_Crime.pdf) (SIPR Annual Report, 2011)