

Extent of Forensic Practices of Police Investigators: A Basis for Enhancement Plan

JAPHET V. QUIAPE

<https://orcid.org/0009-0003-2451-3492>
quiapejaphet@gmail.com
University of Antique
Sibalom, Antique, Philippines

ERMEE JOY F. PAINAGA

<https://orcid.org/0000-0001-8245-1742>
ejfpainaga@gmail.com
University of Antique
Sibalom, Antique, Philippines

Originality: 100% • Grammarly: 98% • Plagiarism: 0%



This work is licensed under a [Creative Commons Attribution-NonCommercial 4.0 International License](https://creativecommons.org/licenses/by-nc/4.0/).

ABSTRACT

In criminal investigations, the Directorate for Investigation and Detective Management – Police investigators are required by Philippine National Police orders to conduct forensic science-based crime scene investigations. In order to ensure that every government employee adheres to the accepted belief that public office is a public trust, it is challenging to assess the work of police detectives performing crime scene investigations using forensic technology. This essential value of forensic science in police investigations is undeniable. This study discusses the scope of police forensic methods in ballistics, photography, and dactyloscopy, specifically in the Province of Antique. These issues regarding the scope of practices in conducting investigations and forensic examinations are

expressed via a survey questionnaire and a series of statistical tests. In addition, the report outlines the difficulties experienced by these Philippine National Police investigators. The results of the study found that police investigators had a high level of forensic experience with ballistics and photography. Further, results revealed low level of forensic experience with dactyloscopy. Therefore, Police investigators, among many solutions, may consider the following to be of great help: 1-attending relevant seminars and trainings involving dactyloscopy, and 2- specifying budget allocation for lacking equipment.

Keywords — ballistics, forensic photography, dactyloscopy, police investigators, Philippines

INTRODUCTION

In a world without forensic science, perpetrators of the most heinous crimes, including homicide, robbery, drug trafficking, and sexual assault, would walk free. Fortunately, forensic science includes various individuals, such as an extensive and highly diverse community of forensic practitioners. These practitioners include managers, crime scene examiners, lab technicians, and forensic science experts (Lawless, 2016). Additionally, various individuals from other parts of the criminal justice system might be considered stakeholders in forensic science. Officers of the law were included in this group.

The purpose of the state is to promote a high level of ethics in public service, as stated in the “declaration of policy” that is included in Section 2 of Republic Act 6713 (The Law Phil Project, 2020). To this end, public officials and staff must consistently demonstrate accountability to the general populace and prioritize the public’s welfare over their interests. Therefore, according to the Norms of Conduct of Public Officials and Employees, police investigators are also held accountable while doing their duties in the line of duty. These professionals are expected to enter public service with the highest passion and dedication in performing their duties. They must try disposing erroneous notions about their activities as sources or carriers of unlawful patronage.

According to Rice University (2014), practice is a powerful holistic sign of success in many endeavors. Furthermore, and this should come as no surprise, those who report much practice tend to do better than people who practice less. Subsequently, this study was anchored to the study of Bjelovuk et al. (2020), which aimed at determining the evidentiary value of photography in

criminal investigations. Moreover, Rohatgi and Kapoor (2016) established that photographs are the most efficient and straightforward way for an investigating officer to depict a crime scene.

Fingerprints give authorities with highly strong physical evidence that may be used to link suspects to evidence or the scene of the crime (Britannica, 2017). This study also anchored to a study by Morgan et al. (2018) that tackled the impact of ballistic evidence on criminal investigations, wherein results provided some promising evidence in support of using ballistic evidence obtained through a national automated ballistic information network in investigations into firearm crime.

In the Province of Antique, police investigators also use varied strategies to investigate the occurrences of various crimes. Many of them employ techniques and methods to resolve crimes within their respective area of jurisdiction. However, it is still being determined if these investigators are using the scientific method of investigating crimes as expected, given that they already enjoy the modern world of technology. Their forensic practices truly reflect their performance as competent police investigators. Thus, it is on this premise that the researcher would like to find out the forensic practices of police investigators in the Province of Antique as the bases for formulating a proposed training design or program to enhance or sustain their investigation skills. Finally, studies on the extent of forensic practices of police investigators in the Province of Antique eventually revealed whether or not they were performing their duties and responsibilities at their best while serving their stakeholders.

FRAMEWORK

The current inquiry is guided properly by Schechner's performance theory (2004), which proposes that humans are capable of incredible feats and that these magnificent accomplishments also occur in day-to-day practice. This theory also contends that humans are capable of doing feats that other living creatures are not capable. Therefore, putting in a strong effort will lead to notable accomplishments. Consequently, it is vital to practice, regardless of whether one aims to be "pretty good" or "expert." However, practicing can be challenging and unpleasant when someone is accustomed to high proficiency. To get the most out of training, however, you must make an effort to put what was learned into practice. After all, the only way to become proficient in a new skill or conduct is to practice using that new ability or habit. Fogleman (2017) also added that if one routinely

practices something, the likelihood of him doing better on something is higher. It helps one improve. Considering the outcome of the study on the problems/issues encountered by police investigators in the conduct of investigation or examination using forensic sciences, the researcher realized the importance of practice in enhancing the performance of police investigators during the conduct of crime scene investigation or examination using forensic science. It connotes that if the practice of forensic science by police investigators is very high, it means they are doing their best to meet the community's expectations.

Similarly, a very high practice level suggests that they are carrying out their responsibilities at an exceptionally high level of performance. It reflects well on the image of police investigators who work in this area of the profession. The parties involved, who represent the victim, have been given the assurance that justice was done. The findings highlight the need to have the necessary tools and materials to ensure accurate documentation, preservation, and examination of a potential crime scene and any evidence that may have been present to use forensic science to piece together what may have transpired.

OBJECTIVES OF THE STUDY

Specifically, this research sought the answer to this objective: to measure the extent of forensic practices of Philippine National Police (PNP) investigators or police Investigators in the Province of Antique; the study also identifies the challenges and issues encountered by these investigators in the conduct of investigations in terms of Ballistics, photography, and dactyloscopy, in addressing the enhancement and developmental programs on investigative skills as perceived by the police investigators.

METHODOLOGY

Research Design

Descriptive research was utilized in carrying out this investigation. According to Best and Kahn (2008), descriptive research focuses on examining non-manipulative variables and formulating generalizations, including findings extending beyond the observed sample.

Because it seeks to follow the current forensic methods of police investigators in the Province of Antique, this research design is the most appropriate for this study. In addition, this research used the qualitative technique to determine the

challenges or obstacles law enforcement officers have when conducting forensic sciences investigations.

Research Site

The inclusion of the whole 18 municipalities of Antique was considered in the study for better results.

Participants

The respondents were sixty- five (65) police investigators assigned at the different municipal police stations in Antique. Their educational attainment and length of service were considered essential variables in assessing the extent of forensic practices in their respective municipal stations. Stratified proportionate sampling was employed to identify the number of respondents per municipal station.

Instrumentation

A researcher-made questionnaire was used to gather data. This instrument underwent content and phase validation by a jury of three members. The instrument was composed of three parts. Part I contained the demographic profile of the respondents. Part II obtained data on the extent of forensic practices of police investigators. To answer this portion of the instrument, the respondents were required to indicate their extent of practice to each statement using these options: 4 – Always; 3 – Frequently; 2 – Sometimes; and 1 – Never.

Data Gathering Procedure

In gathering the data, the researcher secured approval from the adviser to research the extent of forensic practices. A permit from the CCJE-Graduate School and the City Director, Iloilo City Police Office (ICPO), was secured for reliability testing. Finally, the permit to conduct the study was secured from CCJE- Graduate School, the Office of Police Provincial Director, Antique Provincial Police Office (APPO) was approved, and the instrument was signed by three experts from the College of Criminal Justice Education. The instrument was validated by three (3) experts from West Visayas State University. After the content and face validation, the instrument used to determine the extent of forensic practices of police investigators was subjected to pilot testing using 35 respondents represented by the police investigators assigned at the Iloilo City Police office. The results of pilot testing were subjected to reliability testing using the Statistical Package for the Social Sciences (SPSS version 20.0) software.

Ethics Protocol

The researcher ensured the respondents' anonymity and privacy through informed consent and a Privacy Impact Assessment (PIA). The research took into account the respondents' willingness to participate. The researcher initially obtained their agreement to determine the respondents' willingness, collaboration, and voluntariness to deliver acceptable responses before asking them to participate. Finally, the researcher ensures that the study is independent and impartial in providing all the data.

RESULTS AND DISCUSSION

The participants of this paper were 65 PNP investigators. Their demographic profile, such as age, educational attainment, and length of service, was collected to properly assess the extent of forensic practices regarding Ballistics, photography, and dactyloscopy.

Table 1

Extent of Forensic Practices of Police Investigators as an Entire Group and when classified as to Age, Length of Service, and Educational Attainment in terms of Ballistics

Indicator	SD	Mean	Description
Entire Group	0.48	3.56	Very Great Extent
Age			
30 Years and <	0.44	3.61	Very Great Extent
Above 30 Years	0.49	3.55	Very Great Extent
Length of Service			Very Great Extent
15 years and <	0.41	3.59	Very Great Extent
Above 15 Years	0.63	3.50	Very Great Extent
Educational Attainment			
B.S Degree Holder	0.50	3.55	Very Great Extent
M.S Degree Holder	0.32	3.66	Very Great Extent

Legend: (1.00-1.49) very low extent, (1.50-2.49) low extent, (2.50-3.49) great extent, (3.50-4.00) very great extent.

Table 1 shows the Extent of Forensic Practices of Police Investigators as an Entire Group and when classified as Age, Length of Service, and Educational Attainment in terms of Ballistics. As an entire group, the result showed that the

extent of forensic practices of police investigators in terms of Ballistics is very great (M=3.66, SD=0.48). The police investigators in the Province of Antique were all conversant with applying forensic Ballistics during crime scene investigations. The results are further supported by the study conducted by De Guzman (2010) on the significance and effectiveness of firearms identification and investigation concerning solutions of criminal Cases as perceived by the police investigators that firearm identification and investigation had a very high relation to the solution of criminal cases.

Table 2

Extent of Forensic Practices of Police Investigators as an Entire Group and when classified as to Age, Length of Service, and Educational Attainment in terms of Photography

Indicator	SD	Mean	Description
Entire Group	0.37	3.70	Very Great Extent
<i>Age</i>			
30 Years and <	0.34	3.76	Very Great Extent
Above 30 Years	0.37	3.69	Very Great Extent
<i>Length of Service</i>			
15 years and <	0.33	3.74	Very Great Extent
Above 15 Years	0.45	3.61	Very Great Extent
<i>Educational Attainment</i>			
B.S Degree Holder	0.38	3.69	Very Great Extent
M.S Degree Holder	0.20	3.83	Very Great Extent

Legend: (1.00-1.49) very low extent, (1.50-2.49) low extent, (2.50-3.49) great extent, (3.50-4.00) very great extent.

Table 2 shows that the extent of forensic practices of police investigators in terms of photography was very great extent (M=3.70, SD=0.37). It could be interpreted that the police investigators in the Province of Antique were all conversant with applying forensic photography during crime scene investigations. The results are further supported by a study conducted by Murgod et al. (2018), in which Forensic photography is a vital tool in modern forensic procedures, assisting in investigation operations, archival data management, and supplying evidence that can supplement medicolegal issues in court.

Table 3

Extent of Forensic Practices of Police Investigators as an Entire Group and when classified as to Age, Length of Service, and Educational Attainment in terms of Dactyloscopy

Indicator	SD	Mean	Description
Entire Group	0.81	2.06	Low Extent
Age			
30 Years and <	0.71	2.16	Low Extent
Above 30 Years	0.83	2.04	Low Extent
Length of Service			
15 years and <	0.80	2.05	Low Extent
Above 15 Years	0.86	2.08	Low Extent
Educational Attainment			
B.S Degree Holder	0.80	2.03	Low Extent
M.S Degree Holder	0.86	2.06	Low Extent

Legend: (1.00-1.49) very low extent, (1.50-2.49) low extent, (2.50-3.49) great extent, (3.50-4.00) very great extent.

Table 3 shows the great extent of forensic practices of police investigators in terms of dactyloscopy, $M=3.06$, $SD=0.81$. The results of this study also conform to the study of Ulery et al. (2011), which determined the accuracy and reliability of fingerprint examiners in assessing difficult latent print comparisons and revealed that 85% of the examiners committed at least one error in identifying the prints.

CONCLUSIONS

The result of the study implies that the police investigators in the province of Antique were highly capable of performing and applying forensic science during the conduct of crime scene investigation, particularly in Ballistics and photography. However, a variation in forensic practices in terms of dactyloscopy was observed to be underperformed. The problem arises as dactyloscopy should be the topmost priority among any other forensic sciences because of its high reliability in terms of identification. With this, Police investigators may consider attending relevant dactyloscopy seminars and training. Further, the researchers suggest the adaptation of the proposed Enhancement Plan specifically

designed for the development of skills of Police investigators. Finally, the proper authorities may consider providing for the lacking equipment for better practice or application of forensic science in investigative examinations.

TRANSLATIONAL RESEARCH

This study benefits the Police Regional Office 6 in upholding and enhancing the practice of one of its three primary functions- *Investigation*. The conduct of investigations is aided by Forensic science that strengthens the findings and testimonies of experts. Adopting the proposed Skills Enhancement Plan on Forensic Practices would address the personal challenges of investigators that hinder their professional progress toward a high level of expertise in their respective practices. Moreover, if adopted, the agency's investigative performance may move the organization towards its visions and goals and serve as a benchmark to all other Provinces as a highly capable, effective, and credible police service.

LITERATURE CITED

- Best, J. W and J. V. Kahn. 2008. Research in education. 10th ed. New Delhi: Prentice Hall of India. Retrieved on November 20, 2020 from <https://tinyurl.ph/FOEUt>
- Bjelovuk, I., Kesić, T., & Tasić, M. (2020). The evidentiary value of photography in criminal investigations. *Kriminalistička teorija i praksa*, 7(2/2020.), 24-36.
- Britannica, T. Editors of Encyclopaedia (2017, June 4). dactyloscopy. Encyclopedia Britannica. <https://www.britannica.com/topic/dactyloscopy>
- De Guzman R. (2010). Significance and effectiveness of firearms identification and investigation in relation to solutions of criminal cases as perceived by the police investigators. Masteral Metro Manila College. *Philippine National Bibliography*. <http://kulturalink.nlp.gov.ph/cgi-bin/koha/opac-detail.pl?biblionumber=923>
- Fogleman, A. S. (2017). Revolutions without Borders: The Call to Liberty in the Atlantic World. *The Historian*, 79(3), 662-664.
- Lawless, C. (2016). *Forensic science: A sociological introduction*. Routledge. Retrieved on Jan 12, 2020, from <https://tinyurl.ph/VSWwm>

- Morgan, A. & Jorna, P. (2018). Impact of Ballistic evidence on Criminal Investigations. *Australian Institute of Criminology*. Retrieved on May 10, 2023 from https://www.aic.gov.au/sites/default/files/2020-05/ti548_impact_of_ballistic_evidence_on_criminal_investigations.pdf
- Murgod, S., Karnam, S., Gouse, S., & Girish, H. C. (2018). Forensic photography: Prospect through the lens. *Journal of forensic dental sciences*, 02-04.
- Rice University. (2014). Does practice really make perfect? ScienceDaily. Retrieved on Jan 20, 2020, from <https://www.sciencedaily.com/releases/2014/07/140716123835.htm>
- Rohatgi, R., & Kapoor, A. K. (2014). Importance of still photography at scene of crime: A forensic vs. judicial perspective. *J Harmonized Res Appl Sci*, 2, 271-4.
- Schechner, R. (2004). Performance Theory. Retrieved on Nov 22, 2020, from <http://bit.ly/3o805qb>
- Shah, S. A. A., & Hussain, B. (2021). Challenges Faced by Police Officers in Forensic Criminal Investigation in Peshawar, Pakistan. *Pakistan Journal of Criminology*, 13(4).
- The Law Phil Project. (2020). Rules Implementing the Code of Conduct and Ethical for Public for Officials and Employees. Retrieved on Nov 24, 2020, from https://www.ombudsman.gov.ph/docs/republicacts/Implementing_Rules_of_RA_6713.pdf
- Ulery, B. T., Hicklin, R. A., Buscaglia, J., & Roberts, M. A. (2011). Accuracy and reliability of forensic latent fingerprint decisions. *Proceedings of the National Academy of Sciences of the United States of America*, 108(19), 7733–7738. <https://doi.org/10.1073/pnas.1018707108>