

# **Criminal Investigation Competencies of Police Personnel in the Province of Cagayan: Input to an Innovative Medium-Term Development Plan**

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## **Abstract**

This study assessed the criminal investigation competencies of police personnel in the Province of Cagayan as input to an innovative medium-term development plan. It employed a descriptive-comparative research design with 90 respondents composed of investigators, first responders, and prosecutors/judges. A researcher-made questionnaire validated by experts and tested for reliability was used, and data were analyzed using weighted mean, ANOVA, Kruskal-Wallis, and Mann-Whitney U test. Findings revealed that investigators were generally moderately competent in investigative procedure, legal knowledge, oral and written communication, and training and equipment, while critical thinking and decision-making was rated very competent. Challenges were assessed as moderately serious, particularly in information gathering, interview and interrogation, instrumentation, and crime scene processing. No significant differences were found among respondent groups in competencies, challenges, and perceived necessity of interventions. All suggested interventions were rated very necessary, indicating strong support for training, communication, legal knowledge, and technological enhancement. The study concludes that investigation performance is functional but constrained by limited resources and uneven technical capacity, requiring system-wide professional development. It also highlights that the three respondent groups shared similar perceptions, indicating a consistent assessment of investigative practices across operational and judicial perspectives. Results further emphasize the need for enhanced forensic capacity, improved coordination, and continuous professional training to address identified gaps in investigation of criminal investigation practices in the province.

**Keywords:** *criminal investigation, police competency, forensic investigation, investigative procedure, legal knowledge, communication skills, critical thinking, training and equipment, Cagayan Province, professional development.*



## INTRODUCTION

Criminal investigation is a fundamental component of the criminal justice system as it ensures the proper administration of justice, accountability of offenders, and protection of individual rights. Effective criminal investigations contribute to public trust in law enforcement by facilitating the identification, apprehension, and prosecution of offenders while maintaining fairness and due process.

As one of the primary functions of police organizations, criminal investigation requires investigators to possess technical expertise, analytical thinking, decision-making skills, and the ability to collect and evaluate evidence. The effectiveness of police leaders and managers is also closely linked to investigative competence because they influence investigative standards, resource allocation, and organizational performance. Criminal investigation is a systematic and complex problem-solving process that begins with the receipt of information regarding a crime and concludes when a case is either suspended or referred for prosecution (Dempsey, 1996; Lochu, 2020).

At the local level, the First District of Cagayan faces persistent challenges related to criminality and law enforcement. Based on data from the Crime Information Reporting and Analysis System (CIRAS), the district recorded substantial crime volumes from 2018 to 2023, requiring continuous investigative efforts from police personnel assigned to various municipal police stations. Despite these demands, the Cagayan Police Provincial Office operates with a police-to-population ratio of approximately 1:1,860, which falls significantly below the ideal ratio of 1:500 prescribed by the Philippine National Police. This situation places considerable pressure on investigators who are tasked with managing a large number of criminal cases and complaints.

Moreover, this study was anchored on Sustainable Development Goal (SDG) 16: Peace, Justice, and Strong Institutions, which emphasizes the promotion of peaceful and inclusive societies, access to justice for all, and the development of effective, accountable, and transparent institutions (United Nations, 2015). Effective criminal investigation is an essential mechanism for upholding the rule of law and ensuring that justice is administered fairly and efficiently. Through competent investigation practices, law enforcement agencies can enhance crime detection, facilitate the successful prosecution of offenders, and strengthen public confidence in the criminal justice system. Specifically, this study supports Target 16.3, which promotes the rule of law and equal access to justice; Target 16.6, which advocates for effective and accountable institutions; and Target 16.a, which calls for strengthening national institutions through capacity-building to prevent violence and combat crime. By assessing the competencies of police investigators in the Province of Cagayan, this study sought to contribute to the professionalization of criminal investigation, improvement of police service delivery, and enhancement of institutional effectiveness.

### Statement of the Problem

This study assessed the level of criminal investigation competencies of police personnel in the Province of Cagayan as input to an innovative medium-term development plan.

Specifically, it sought to answer the following questions:

1. What is the level of criminal investigation competencies of the police personnel in terms of:
  - 1.1 Investigative procedure;
  - 1.2 Legal Knowledge;
  - 1.3 Oral and written communication;
  - 1.4 Training and equipment; and
  - 1.5 Critical thinking and decision-making
2. Is there a significant difference in the perception of the investigators/supervisors and first responders along the different aspects of criminal investigation competencies?
3. What is the degree of seriousness of the challenges encountered by the police investigators in terms of:
  - 3.1 Gathering of information;
  - 3.2 Interview and interrogation;
  - 3.3 Instrumentation;
  - 3.4 Crime scene process;
4. Is there a significant difference in the degree of seriousness of the challenges encountered by investigators/supervisors and first responders?
5. What is the degree of necessity of the suggestions offered to enhance the criminal investigation competencies of police personnel in terms of:
  - 5.1 Investigative procedure;
  - 5.2 Legal Knowledge;
  - 5.3 Oral and written communication;
  - 5.4 Training and equipment; and
  - 5.5 Critical thinking and decision-making
6. Is there a significant difference in the degree of necessity of the suggestions offered as assessed by the three groups of respondents?
7. Based on the findings of the study, what innovative professional development plan can be developed to enhance the criminal investigation competencies of police personnel in the province of Cagayan?

### Hypotheses

The following hypotheses were formulated:

1. There is no significant difference in the perception of the investigators/supervisors and first responders along the different aspects of criminal investigation competencies
2. There is no significant difference in the perception of the investigators/supervisors and first responders along the different aspects of criminal investigation competencies.
3. There is no significant difference in the degree of necessity of the suggestions offered by the first responders and judges/prosecutors/court personnel.

## METHODOLOGY

### Research Design

The study employed a descriptive-comparative research design, which was appropriate because it aimed to describe and compare the criminal investigation competencies of police personnel without manipulating any variables. Consistent with this design, the study examined existing conditions across different groups of respondents and determined whether significant differences existed among them. This design was appropriate in determining how police investigators, supervisors, and first responders assessed competencies, challenges, and the necessity of proposed interventions in criminal investigation.

Through this design, the study first described the level of competencies in terms of investigative procedures, legal knowledge, communication skills, training and equipment, and critical thinking and decision-making. It also described the seriousness of challenges encountered in various investigative tasks and the perceived necessity of suggested improvements.

After describing these variables, the study compared the responses of the different groups to determine whether significant differences existed among them. The results of these descriptions and comparisons served as the basis for developing an innovative professional development plan aimed at enhancing the criminal investigation competencies of police personnel in District 1 municipalities. Respondents of the Study

The respondents involved in this study were divided into three groups. For the first group of respondents, consisting of PNP personnel assigned in investigation, the study established clear inclusion and exclusion criteria to ensure that only qualified and relevant personnel were selected. This group included Police Officers supervising investigations, investigators assigned in the Investigation and Detective Management System (IDMS), and investigators assigned in District 1.

The study included active-duty Philippine National Police (PNP) personnel assigned to investigative roles, such as investigation supervisors, IDMS investigators, and frontline investigators, with at least one year of investigative experience and who voluntarily consented to participate.

It excluded personnel not involved in investigations (e.g., administrative and clerical staff), those with less than one year of experience, officers who were unavailable due to leave, training, or reassignment, and those who declined participation or provided incomplete responses.

The second group of respondents consisted of first responders, including Desk Officers, Crime Registrars, Patrollers, Barangay Officials, and Tanods involved in initial incident response and coordination with law enforcement agencies.

Included participants were active personnel in these roles with at least one year of relevant experience, currently serving during data collection, and who provided informed consent.

Excluded were individuals not engaged in first response duties (e.g., administrative or non-operational staff), those with less than one year of

experience, personnel who were inactive due to leave, reassignment, or training, and those who declined participation or submitted incomplete responses.

The third group of respondents consisted of prosecutors and judges involved in criminal case evaluation and adjudication. Included were licensed and active prosecutors and judges with at least one year of experience in their current roles, directly handling or presiding over criminal cases, and who provided informed consent within the study area.

Excluded were legal professionals not actively handling criminal cases, those assigned to administrative or unrelated duties, individuals on leave or inactive status, those with less than one year of experience, and respondents who declined participation or submitted incomplete data.

## RESULTS AND DISCUSSION

1. Level of criminal investigation competencies of the police personnel
  - 1.1 Investigative procedure
    - Obtained a mean of 3.24 (Moderately Competent). This indicates that while investigators were very competent in evidence handling, sworn statements, and chain of custody procedures, they were only moderately competent in crime scene assessment and control.
  - 1.2 Legal Knowledge
    - Recorded a mean of 3.19 (Moderately Competent). This shows that respondents had sufficient but not fully advanced understanding of laws and criminal procedures, particularly in applying legal principles throughout the investigative process.
  - 1.3 Oral and Written Communication
    - Obtained a mean of 3.18 (Moderately Competent). This suggests that investigators were generally capable in report writing and interviews but still need improvement in grammar, clarity, and structured communication.
  - 1.4 Training and Equipment
    - Obtained the lowest mean of 3.03 (Moderately Competent). This indicates a deficiency in access to investigative tools, digital systems (e-blotter, CIDMS), and specialized training in crime scene processing.
  - 1.5 Critical Thinking and Decision-Making
    - Obtained a mean of 3.28 (Very Competent). This shows that investigators demonstrated strong ethical standards, sound judgment, and analytical ability in handling investigative situations.
2. Difference in the perception of the investigators/supervisors and first responders along the different aspects of criminal investigation competencies
  - The comparison of perceptions among Supervisor/Investigators, First Responders, and Judge/Prosecutor/Court Personnel showed that there were no significant differences across all aspects of criminal investigation competencies, including investigative procedure, legal knowledge, oral and written communication, training and equipment, critical thinking and decision-making, and the overall assessment. All computed p-values were greater than 0.05, leading to the acceptance

of the null hypothesis in all areas. This means that the three groups generally shared similar perceptions and evaluations of the competencies of police investigators. The findings indicate a consensus among the respondents, suggesting that regardless of their roles in the criminal justice system, they had a consistent and aligned assessment of the strengths and limitations of criminal investigation competencies in the study area.

3. Degree of Seriousness of Challenges Encountered
  - 3.1 Gathering of Information
    - Obtained a mean of 2.87 (Moderately Serious). This implies difficulties in witness cooperation, limited CCTV availability, and incomplete or inaccurate information.
  - 3.2 Interview and Interrogation
    - Recorded a mean of 2.70 (Moderately Serious). This shows challenges such as language barriers, refusal of witnesses to give written statements, and inconsistencies in responses.
  - 3.3 Instrumentation
    - Obtained a mean of 2.63 (Moderately Serious). This indicates limitations in forensic tools, slow laboratory results, and lack of expertise in some investigative technologies.
  - 3.4 Crime Scene Process
    - Obtained a mean of 2.75 (Moderately Serious). This reflects issues in crime scene contamination, improper turnover, and limited personnel support.
4. Difference in the degree of seriousness of the challenges encountered by investigators/supervisors and first responders
  - The comparison of perceptions among Supervisor/Investigators, First Responders, and Judge/Prosecutor/Court Personnel regarding the degree of seriousness of challenges in criminal investigation showed that there were no significant differences across all indicators, including gathering of information, interview and interrogation, instrumentation, crime scene process, and the overall assessment. All obtained p-values were greater than 0.05, leading to the acceptance of the null hypothesis in all areas. This means that the three groups consistently shared similar views on the seriousness of the challenges encountered in criminal investigations. The findings indicate a uniform perception among respondents, suggesting that regardless of their roles in the criminal justice system, they experienced and evaluated the challenges in a similar manner.
5. Degree of necessity of the suggestions offered to enhance the criminal investigation competencies of police personnel
  - 5.1 Investigative Procedure
    - It was rated 3.80 and interpreted as Very Necessary. This means respondents strongly believed that improving investigative procedures is important to enhance the efficiency and accuracy of police

investigations.

#### 5.2 Legal Knowledge

- It was rated 3.79 or Very Necessary. This indicates that respondents viewed strengthening legal knowledge as essential to ensure proper application of laws in criminal investigations.

#### 5.3 Oral and Written Communication

- It was rated 3.84 or Very Necessary. This shows that respondents considered communication skills as the most important area to improve, especially in writing reports and conducting interviews effectively.

#### 5.4 Training and Equipment

- It was rated 3.78 or Very Necessary. This means respondents agreed that continuous training and provision of adequate equipment are necessary to improve investigative performance.

#### 5.5 Critical Thinking and Decision-Making

- It was rated 3.83 or Very Necessary. This implies that respondents highly valued the need to enhance analytical skills and sound decision-making in handling complex investigative situations.

### Conclusion

From the results of the study, it can be deduced that criminal investigation practice in the study area is operating at a functional but still developing level, where effectiveness is more anchored on individual competence rather than system-wide support. While investigators demonstrate strong ethical grounding and sound judgment in decision-making, their performance is not fully sustained by sufficient technical resources, updated systems, and advanced field training, indicating that competence alone is not enough to ensure optimal investigative outcomes.

A key insight from the findings is that the limitations in investigation are not isolated to one group or role, but are shared and recognized uniformly across all actors in the criminal justice system. This suggests that the challenges are structural in nature rather than perception-based, reinforcing the idea that improvements must be system-wide and collaborative rather than sector-specific.

Furthermore, the study reveals that although operational challenges are present, there is a strong collective agreement on the direction of improvement. This reflects a shared awareness and readiness among stakeholders for modernization, particularly in communication, legal application, technical capacity, and resource support. In essence, the findings highlight a clear gap between existing competence and the level of competence required for fully efficient, technology-supported, and highly responsive criminal investigation systems.

### Recommendations

Based on the findings and conclusions of the study, this section presents a set of recommendations aimed at addressing the identified gaps in criminal investigation competencies among police personnel in the study area. These recommendations are designed to strengthen investigative practices, improve professional skills, and enhance access to necessary tools and resources;

1. The PNP should strengthen its continuous training programs by institutionalizing regular capacity-building activities focused on investigative procedures, legal updates, and case management. The Proposed Professional Development Plan may be adopted as a guide in standardizing training interventions across all investigative units.
2. Station-level supervisors should ensure the regular conduct of mentoring sessions, case debriefings, and hands-on training to improve field application of investigative procedures. They should actively implement the strategies outlined in the Professional Development Plan to address skill gaps among investigators.
3. Training institutions should integrate advanced modules on digital investigation systems (such as e-blotter and CIDMS), forensic awareness, and crime scene management. These institutions should align their curriculum with the Proposed Development Plan to ensure relevance to current field demands.
4. LGUs should provide logistical and financial support for the procurement of essential investigative equipment and communication tools. This support will strengthen operational capacity as emphasized in the Professional Development Plan.
5. Investigators should actively participate in continuous learning, seminars, and skill enhancement programs. They should also engage in self-development activities, particularly in communication, legal knowledge, and critical thinking, as outlined in the Professional Development Plan.
6. Policies should be strengthened to institutionalize a standardized professional development framework for investigators. The adoption of the Proposed Professional Development Plan as a formal reference may ensure consistent implementation of competency enhancement programs.
7. Further studies should be conducted to evaluate the effectiveness of the implemented Professional Development Plan and explore additional factors affecting investigative performance, such as workload, organizational culture, and technological readiness.

### Bibliography

Castillo, K. (2024). Realities and opportunities for continuing professional development in security sector: The case of General Santos City Police Office. *International Journal of Science and Management Studies (IJSMS)*, 7(4), 10–22. <https://doi.org/10.51386/25815946/ijsms-v7i4p102>

Donque, J. P. (2023). The mediating effect of investigators' competence on the relationship between efficiency and accomplishments of police investigators. *European Journal of Education Studies*, 10(7), 415–432. <https://doi.org/10.46827/ejes.v10i7.4883>

Espergal Pasigui, R. (2026). Architecting innovation: A Qualitative Study On The Structural Metamorphosis Of World University Network For Innovation - Leader (W.U.N.I.-L.) Toward The WURI Framework. *Aloysian Interdisciplinary Journal of Social Sciences, Education, and Allied Fields*, 2(5), 2787-2797. <https://doi.org/10.5281/zenodo.20307573>

Erwinwijaya, Farida, U., Tamsah, H., Wahyudhi, W., Nurung, J., & Muhtar, S. (2022). Competency development on investigation performance through work creativity, responsibilities, and HR capacity. In *Proceedings of the First Australian International Conference on Industrial Engineering and Operations Management*. IEOM Society International.

Pasigui, R. (2025). Strategic Linkages, Innovation Outcomes, and Global Validation: A Qualitative Case Study of UCV's WURI Recognition. *Aloysian Interdisciplinary Journal of Social Sciences, Education, and Allied Fields*, 1(9). <https://journals.aloysianpublications.com/index.php/articles/article/view/340>

Pasigui, R. (2025). Catalyst for Change: Visionary Leadership and SDG Integration at the University of Cagayan Valley . *Aloysian Interdisciplinary Journal of Social Sciences, Education, and Allied Fields*, 1(9). <https://journals.aloysianpublications.com/index.php/articles/article/view/348>

Peng, K., Gao, M., Chen, H., Tang, J., Xing, Y., & Jiang, F. (2023). Rural policing in China: Criminal investigation and policing resources for police officers. *Heliyon*, 9(8), Article e18934. <https://doi.org/10.1016/j.heliyon.2023.e18934>

Philippine National Police. (2020). *PNP Memorandum Circular No. 2020-006: Revised Criminal Investigation Manual*. National Headquarters, Philippine National Police.

Republic of the Philippines. (1998). *Republic Act No. 8551: Philippine National Police Reform and Reorganization Act of 1998*. Official Gazette.

Salindo, P., & Osumo, R. (2025). Service beyond the line of duty: A phenomenological inquiry into police work. *Journal of Interdisciplinary Perspectives*, 3(8), 796–807. <https://doi.org/10.69569/jip.2025.542>



Santos, E. B. (2024). Level of competence of Region IVA forensic personnel. *EPRA International Journal of Multidisciplinary Research (IJMR)*, 10(10), 184–192.

<https://doi.org/10.36713/epra2013>

Supalaknari, S., & Wainiphithapong, C. (2022). The suitability level of CSI factors and problematic conditions in crime scene investigation of inquiry officers under Thailand's Provincial Police Region 7. *International Journal of Crime, Law and Social Issues*, 9(2).

<https://doi.org/10.2139/ssrn.4540085>

Yildiz, S. (2008). *Determinants of the well-being of police officers in the Turkish National Police* (Publication No. 3784) [Doctoral dissertation, University of Central Florida]. STARS Electronic Theses and Dissertations. <https://stars.library.ucf.edu/etd/3784>