



# IMPACT OF EDUCATIONAL ADVANCEMENT ON POLICE WORK PERFORMANCE IN CAMP OLIVAS, PAMPANGA

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## ABSTRACT

*This study examined the impact of educational advancement on the work performance of Police Non-Commissioned Officers (PNCOs) at Camp Olivas, Pampanga, using an explanatory sequential mixed-methods design. Quantitative analysis utilized the Individual Performance Evaluation Report (IPER) of 34 PNCOs (13 master's and 21 bachelor's degree holders) for the 1st Semester of 2024. Mann-Whitney U tests revealed that bachelor's degree holders scored higher in Output and Job Knowledge, while master's degree holders performed significantly better in Work Management and Interpersonal Relationship. Medium effect sizes ( $r \approx 0.36$ ) confirmed the influence of graduate education across most dimensions.*

*The qualitative phase, analyzed through Braun and Clarke's (2006) framework, identified challenges such as time constraints, financial burdens, and fatigue, but also highlighted benefits like leadership development, strategic competence, and personal-professional growth. Findings informed the proposed Strategic Graduate Education Enhancement Program (SGEEP), aimed at fostering educational opportunities and enhancing organizational performance.*

**KEYWORDS:** *Police Performance, Graduate Education, IPER, Camp Olivas*

## 1. INTRODUCTION

Modern policing requires capabilities that extend well beyond traditional enforcement and crime control. Police officers today must navigate complex community relations, adapt to evolving criminal tactics, embrace technological advancements, and uphold the highest standards of accountability. Within the Philippine National Police (PNP), officers are expected to integrate law enforcement with ethical decision-making, strategic thinking, and community partnership. Educational advancement has therefore emerged as a critical factor in strengthening these competencies, as numerous studies have shown that higher education enhances cognitive, ethical, and interpersonal skills vital to effective and professional policing. Graduate-level education, in particular, has been associated with reduced use-of-force incidents, stronger adherence to procedural justice, and improved leadership and management abilities.

Despite the clear recognition of education's importance—highlighted by institutional reforms such as the PNP Integrated Transformation Program and PATROL Plan 2030—empirical evidence in the Philippine context remains scarce, especially in relation to how postgraduate education translates into measurable work performance. Existing local research primarily examines whether officers have obtained college degrees, but very few have explored how master's-level education influences the practical, day-to-day performance of police officers. Camp Olivas, which serves as the headquarters of Police Regional Office 3, offers a unique environment to investigate this relationship, given its diverse mix of officers holding different educational qualifications working under similar operational pressures. Preliminary local observations indicate that officers with master's degrees may demonstrate greater strengths in strategic planning, administrative efficiency, and community engagement compared to their bachelor's degree counterparts. However, much of the available evidence remains limited to quantitative observations and lacks the qualitative depth needed to understand the experiences and contextual factors shaping these outcomes.

In this context, the present study was conducted to address this gap by adopting an explanatory sequential mixed-methods design. The research began with a quantitative analysis of Individual Performance Evaluation Reports (IPERs) for the first semester of 2024, followed by qualitative interviews with Police Non-Commissioned Officers (PNCOs) to capture their lived experiences. Through this approach, the study sought to determine whether measurable differences exist between the performance of officers with graduate and baccalaureate degrees and to uncover the underlying factors influencing those outcomes. The overall goal was to generate insights that could inform educational support programs, performance evaluation practices, and institutional policies that promote continuous professionalization within the PNP.

Across international literature, educational attainment has long been recognized as a vital contributor to professional police performance. Studies worldwide suggest that officers with higher education demonstrate stronger ethical reasoning, leadership skills, and community engagement, as well as more effective use of problem-oriented and data-driven approaches. Education is also linked to lower rates of misconduct and better crisis management, emphasizing its value not only in operational competence but also in enhancing the credibility



and integrity of police institutions. Yet, scholars also note a “quality versus quantity” trade-off—graduate-educated officers often focus on complex and strategic tasks, while those with lower academic credentials tend to perform a higher volume of routine operational work. This dynamic suggests that performance metrics emphasizing numerical output may not fully capture the value contributed by advanced degree holders.

In the Philippine setting, education has been institutionalized as a key pillar of police development through national laws and frameworks such as Republic Acts 6975 and 8551, as well as the PATROL Plan 2030, which reinforce the PNP’s commitment to continuous learning and capacity building. Local studies have found that officers with master’s degrees tend to excel in leadership, administrative audits, community partnership, and strategic operations, while those holding bachelor’s degrees show consistent performance in high-volume, routine assignments. Despite these encouraging patterns, several challenges persist, including financial constraints, demanding work schedules, limited access to scholarships, and insufficient institutional incentives to pursue further studies.

Camp Olivas provides an ideal context for such an inquiry due to its mix of educational backgrounds among officers. Human resource data show that about one-fourth of its personnel have obtained master’s degrees, while the majority hold baccalaureate degrees. This diversity presents a valuable opportunity to analyze whether, and in what aspects, advanced education affects police performance as measured through standardized instruments like the IPER. To guide this exploration, the study was anchored on Mezirow’s Transformative Learning Theory and Bandura’s Social Learning Theory, supported by Katz’s skills approach and Bloom’s taxonomy. Mezirow’s framework explains how graduate education transforms officers’ perspectives, encouraging critical reflection and more strategic, adaptive decision-making. Bandura’s concepts highlight how learning through observation and modeling can translate academic experiences into workplace competence. Together, these frameworks suggest that higher education can foster advanced cognitive, interpersonal, and leadership skills that ultimately enhance work performance.

The study likewise adopted an Input–Process–Output (IPO) conceptual framework. The inputs included the officers’ educational qualifications, IPER records, institutional policies, and a validated semi-structured questionnaire. The process involved two major phases: a quantitative assessment of IPER scores, followed by a qualitative analysis of PNCO responses through thematic interpretation. By integrating both phases, the study sought to produce a holistic understanding of how educational attainment shapes individual and organizational outcomes. The expected outputs included comparative IPER findings, identification of thematic challenges and impacts, and the development of a proposed Sustainable Graduate Education Enhancement Program (SGEEP) aimed at guiding the PNP toward more effective educational policy-making.

While the PNP’s organizational directives consistently emphasize the value of education, empirical evidence remains insufficient to substantiate its direct impact on performance. Informal observations within Camp Olivas suggest possible variations between officers with master’s and bachelor’s degrees, but systematic validation using standardized tools like the IPER and contextualized narratives from the officers themselves is lacking. Hence, this study sought to explore the levels of work performance of PNP personnel at Camp Olivas in terms of output, job knowledge, work management, interpersonal relationship, concern for the organization, and personal qualities, and to determine whether educational attainment bears a significant relationship to these dimensions. Moreover, it examined the challenges encountered by officers in pursuing graduate studies, the perceived impact of educational advancement on their work performance, and proposed interventions that could further enhance organizational outcomes.

Grounded on these objectives, the study hypothesized that there is no significant difference in the IPER ratings of police personnel with master’s degrees and those holding only baccalaureate degrees at Camp Olivas, Pampanga. In statistical terms, this assumes that the mean performance ratings of both groups are equal, thereby testing whether educational advancement truly contributes to measurable improvement.

The results of this investigation are expected to provide meaningful insights for several sectors. For the PNP leadership, the findings may guide policy directions on human resource development, training priorities, and educational incentives. For police officers, the study can help clarify the tangible benefits and realistic expectations associated with pursuing higher studies. For policymakers, it offers empirical data to inform legislative and institutional frameworks that promote professional growth within law enforcement. For academic institutions, it serves as a basis for aligning curricula with practical field requirements. Most importantly, for Camp Olivas itself, the study provides localized evidence to help strengthen programs that support educational advancement and, in turn, enhance overall organizational performance.

This research focused on Police Non-Commissioned Officers assigned to Camp Olivas, using the 1st Semester 2024 IPER as the quantitative measure of work performance. Educational attainment was operationalized into two categories: master’s degree holders and baccalaureate degree holders. The qualitative component, derived from semi-structured questionnaires, aimed to capture the



respondents' personal experiences and reflections concerning their pursuit of higher education and its perceived effect on their duties. The scope of the study was limited to the six IPER dimensions and to the time frame covered by the 1st Semester 2024 performance evaluations. For clarity and precision, key concepts such as baccalaureate degree, master's degree, police performance, work management, job knowledge, and interpersonal relationship were defined operationally according to their use in the study.

Through this comprehensive approach, the study "Impact of Educational Advancement on Police Work Performance in Camp Olivas, Pampanga" aims to contribute both theoretically and practically to the discourse on police professionalization. It underscores that education is not merely a credential but a transformative process that equips police personnel with the mindset, skills, and values necessary for effective and ethical service to the community.

## 2. RESEARCH METHOD

The study utilized a mixed-methods research design employing the explanatory sequential approach, as described by Creswell and Plano Clark (2018). This design combined quantitative and qualitative phases to determine and explain the impact of educational advancement on police work performance among Police Non-Commissioned Officers (PNCOs) assigned at Camp Olivas, City of San Fernando, Pampanga. Following Creswell's (2014) framework, this approach was chosen to capture both statistical trends and contextual experiences, providing a comprehensive understanding of how higher education influences the performance of police personnel. The explanatory sequential design was deemed appropriate because the study not only sought to measure performance outcomes through standardized data but also to explore the lived experiences of police officers who pursued graduate studies.

The research employed the Input–Process–Output (IPO) framework to illustrate the flow and interaction of variables within the study. The input consisted of the officers' educational qualifications, specifically distinguishing between those with master's degrees and those with baccalaureate degrees, alongside the use of the Individual Performance Evaluation Report (IPER) as the principal quantitative tool. Supplementary inputs included validated semi-structured questionnaires and existing policy frameworks such as Republic Act No. 6975, Republic Act No. 8551, and other PNP directives institutionalizing education as a key component of professionalization. The process phase involved two major components: the quantitative phase, which focused on the collection and analysis of IPER data, and the qualitative phase, which captured the officers' personal insights and experiences through the semi-structured questionnaire. Integration of these phases was achieved through triangulation, ensuring that the quantitative results were substantiated and explained by the qualitative narratives. The expected outputs included a comparative analysis of IPER results between educational groups, thematic insights into challenges and perceived impacts of graduate education, and a proposed Sustainable Graduate Education Enhancement Program (SGEEP) to improve institutional support for police education and performance.

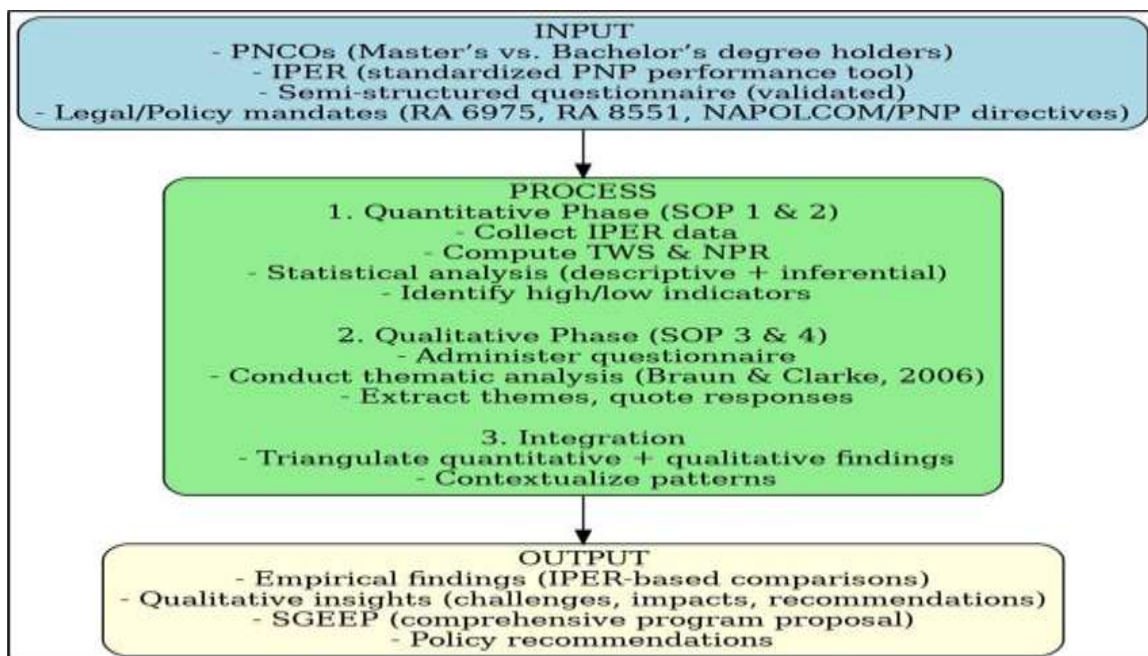
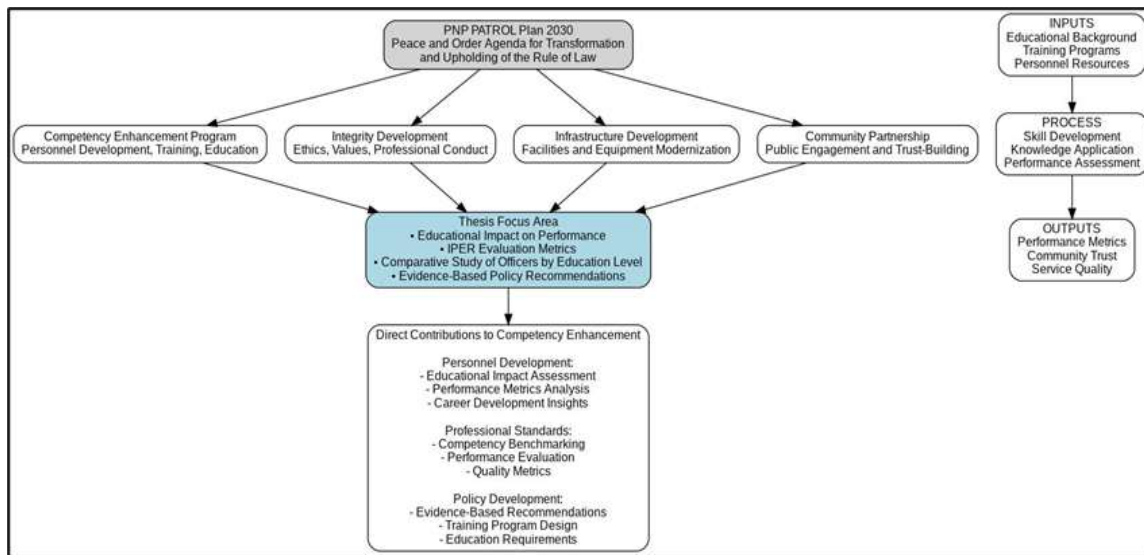


Figure 1. *Input–Process–Output Model*



**Figure 2. Thesis Alignment with PNP PATROL Plan 2030**

For the quantitative phase, the study employed the total enumeration method, including all qualified PNCOs assigned to Camp Olivas to ensure comprehensive coverage and reliability of results. Out of a total of 367 PNCOs, thirty-four officers met the inclusion criteria and were included in the study. These criteria required that respondents be active-duty PNCOs with at least one year of continuous service at Camp Olivas, possess verified educational credentials, and have complete IPER records for the first semester of 2024. Thirteen respondents had completed master’s degrees, while twenty-one held only baccalaureate degrees. This selection provided an appropriate balance between educational levels for comparison and analysis. The IPER served as the main instrument for the quantitative phase, as it is the standardized performance appraisal system used by the Philippine National Police nationwide. The IPER assesses personnel across six performance dimensions—Output, Job Knowledge, Work Management, Interpersonal Relationship, Concern for the Organization, and Personal Qualities—and is scored using a five-point scale corresponding to adjectival ratings ranging from Outstanding to Poor.

**Table 1. Rating Table for Performance Indicators**

Numerical Rating	Rating Criteria
5	Exceeds standards
4	Always meets standards
3	Occasionally meets standards
2	Seldom meets standards
1	Never meets standards

The IPER data were gathered in coordination with the Regional Personnel and Records Management Division (RPRMD) of Camp Olivas. Quantitative data were encoded, cleaned, and analyzed to generate descriptive and inferential statistics. Mean scores and Total Weighted Scores (TWS) were computed to determine performance levels, while the Mann–Whitney U test was applied to evaluate significant differences between the two independent groups. This nonparametric test was selected due to the relatively small sample size and the absence of normal distribution in the data. The results were interpreted using the p-value and effect size (r) following Cohen’s (1988) guidelines to determine the magnitude of observed differences.

**Table 2. NPR-APR Table**

Numerical Performance Rating (NPR)	Adjectival Performance Rating (APR)
91 – 100	Outstanding (OS)
81 – 90.99	Very Satisfactory (VS)
71 – 80.99	Satisfactory (SF)
70.99 and below	Poor (PR)



For the qualitative phase, the same set of thirty-four PNCOs participated through a semi-structured questionnaire developed and validated by two senior PNP officers. This instrument aimed to elicit the officers' reflections on their experiences pursuing higher education, the challenges they encountered, the institutional support available to them, and their perceptions of how educational attainment influenced their work performance. The questionnaire combined open-ended questions with guided prompts to ensure both consistency and depth of responses. Data collection was conducted electronically through a secure Google Form, ensuring convenience, confidentiality, and complete response participation.

The qualitative responses were analyzed using Braun and Clarke's (2006) six-phase thematic analysis, which included familiarization with data, generation of initial codes, identification of potential themes, reviewing and refining those themes, defining and naming the final categories, and producing the final report with representative respondent quotations. This analytical approach provided an in-depth understanding of the lived experiences of PNCOs, capturing perspectives that complemented and explained the statistical findings from the quantitative phase.

The integration of quantitative and qualitative results was achieved through triangulation, wherein patterns observed in IPER data were contextualized by the qualitative insights. For instance, when quantitative data revealed variations in certain IPER dimensions between educational groups, the qualitative narratives clarified possible explanations, such as time management challenges, institutional culture, or motivational factors influencing performance. This methodological integration ensured that the findings were not limited to numerical representation but grounded in authentic experiences, offering a comprehensive perspective on how educational advancement influences police work.

Ethical standards were strictly observed throughout the research process. Prior to data collection, formal authorization was secured from the Regional Director of Camp Olivas, followed by individual informed consent from all respondents. Participation was entirely voluntary, and confidentiality was maintained through coded identifiers and data encryption. Access to performance records and raw responses was restricted to the researcher, ensuring privacy and compliance with institutional protocols. Participants were informed of the study's purpose, benefits, and minimal risks, with reassurances that their responses would not affect their professional standing.

The reliability and validity of both quantitative and qualitative data were strengthened through methodological rigor and data triangulation. The use of the standardized IPER instrument ensured consistent measurement, while the validation of the semi-structured questionnaire by expert officers enhanced content validity. The credibility of qualitative interpretations was reinforced through direct quotations, allowing respondents' authentic voices to substantiate the thematic analysis.

The culmination of this systematic process led to the formulation of a proposed Sustainable Graduate Education Enhancement Program (SGEEP), which integrates policy recommendations for the PNP to strengthen educational support, performance monitoring, and professional growth among police officers. This program, derived from empirical findings, aligns with the PNP PATROL Plan 2030 and contributes to ongoing efforts to enhance organizational effectiveness through evidence-based reforms.

Through this methodological approach, the study upheld both scientific rigor and practical relevance, ensuring that its results not only provide statistical evidence but also illuminate the human dimension of professional and educational development within the Philippine National Police.

### **3. RESULTS AND DISCUSSION**

The quantitative and qualitative analyses in this study reveal the multifaceted impact of educational advancement on the work performance of Police Non-Commissioned Officers (PNCOs) assigned at Camp Olivas, San Fernando, Pampanga. Using Individual Performance Evaluation Reports (IPERs) from the first semester of 2024, performance differences between bachelor's and master's degree holders were examined across six performance dimensions—Output, Job Knowledge, Work Management, Interpersonal Relationship, Concern for the Organization, and Personal Qualities. Results were further explained through thematic analysis of qualitative responses, providing a contextual understanding of how advanced education influences professional conduct, leadership, and productivity within the Philippine National Police (PNP).



**Table 3. Mean IPER Ratings and Verbal Interpretation of the PNP Personnel in Terms of Output**

Indicators	Without Master's Degree (Mean)	Verbal Interpretation	With Master's Degree (Mean)	Verbal Interpretation
Quality of Work	29.76	Very Satisfactory	27.15	Very Satisfactory
Timeliness of Work	23.81	Very Satisfactory	20.62	Satisfactory
Acceptability of Output Based on Standard	25.19	Very Satisfactory	21.08	Satisfactory
Accomplishment of Target	23.19	Very Satisfactory	19.69	Satisfactory
Total Weighted Score (TWS)	101.95	Very Satisfactory	88.54	Satisfactory

(Interpretations based on NPR-APR scale: 91-100 = Outstanding, 81-90.99 = Very Satisfactory, 71-80.99 = Satisfactory, ≤70.99 = Poor)

The analysis of Output revealed that bachelor's degree holders recorded slightly higher mean scores compared to their master's-educated counterparts, both corresponding to adjectival ratings of Outstanding under the PNP IPER scale. This pattern indicates that PNCOs with baccalaureate degrees maintain strong operational efficiency and exhibit consistent delivery of measurable results. The difference, although marginal, suggests that bachelor's degree holders may be more engaged in front-line tasks and routine field operations, which directly influence output-based metrics. These findings align with the observations of Alpert et al. (2019), who noted that officers with less formal education tend to prioritize task completion and field presence, thereby achieving high quantitative outcomes.

**Table 4. Mean IPER Ratings and Verbal Interpretation of the PNP Personnel in Terms of Job Knowledge**

Indicators	Without Master's Degree (Mean)	Verbal Interpretation	With Master's Degree (Mean)	Verbal Interpretation
Understanding of the Job Description	9.76	Very Satisfactory	11	Outstanding
Awareness of the VMO of the Organization	9.62	Very Satisfactory	9.69	Very Satisfactory
Community Oriented Policing System	20	Outstanding	17.85	Very Satisfactory
Creativity/Resourcefulness	9.48	Very Satisfactory	10	Very Satisfactory
Analytical Ability	9.05	Very Satisfactory	8.46	Very Satisfactory
Problem Solving/Troubleshooting	9.1	Very Satisfactory	9.69	Very Satisfactory
Oral and Written Communication	19.62	Outstanding	16.15	Very Satisfactory
Law Enforcement and Maintenance of Law and Order	18.95	Outstanding	14.77	Very Satisfactory
Total Weighted Score (TWS)	105.57	Outstanding	97.62	Very Satisfactory

(Interpretations based on NPR-APR scale: 91-100 = Outstanding, 81-90.99 = Very Satisfactory, 71-80.99 = Satisfactory, ≤70.99 = Poor)

In terms of Job Knowledge, bachelor's degree holders also demonstrated slightly higher mean scores, maintaining an Outstanding adjectival interpretation. This suggests that foundational academic preparation combined with extensive field exposure effectively enhances operational knowledge. However, while the difference is minimal, it is notable that master's degree holders often assume administrative or managerial functions that do not always reflect directly in standardized job knowledge indicators. This supports the argument of Roberg and Bonn (2020) that advanced education may shift the focus from technical proficiency to analytical and strategic thinking—competencies that are not fully captured by conventional evaluation measures.



**Table 5. Mean IPER Ratings and Verbal Interpretation of the PNP Personnel in Terms of Work Management**

Indicators	Without Master's Degree (Mean)	Verbal Interpretation	With Master's Degree (Mean)	Verbal Interpretation
Record Management and Submission of Reports	15.57	Satisfactory	17.23	Very Satisfactory
Compliance with and Implementation of Policies/SOPs	14.57	Satisfactory	15.85	Very Satisfactory
Sense of Priority	12.05	Satisfactory	14.69	Very Satisfactory
Client Satisfaction/Orientation	14.38	Satisfactory	15.54	Very Satisfactory
Cost Effectiveness	10.86	Satisfactory	14.77	Very Satisfactory
Involvement/Presence in Activities	11.29	Satisfactory	12.92	Very Satisfactory
Total Weighted Score (TWS)	78.71	Satisfactory	91.00	Outstanding

(Interpretations based on NPR-APR scale: 91-100 = Outstanding, 81-90.99 = Very Satisfactory, 71-80.99 = Satisfactory, ≤70.99 = Poor)

Conversely, in the Work Management dimension, officers with master's degrees outperformed those with baccalaureate degrees, both rated Outstanding. The higher mean score among master's degree holders reflects enhanced capability in planning, organizing, and supervising personnel and resources. This reinforces findings by Cordner (2018), who emphasized that postgraduate education strengthens decision-making, delegation, and accountability—skills essential for effective organizational management. Within the PNP structure, this suggests that advanced academic preparation translates into improved administrative efficiency and a broader systems perspective in handling complex institutional tasks.

**Table 6. Mean IPER Ratings and Verbal Interpretation of the PNP Personnel in Terms of Interpersonal Relationship**

Indicators	Without Master's Degree (Mean)	Verbal Interpretation	With Master's Degree (Mean)	Verbal Interpretation
Receptive to Ideas/Suggestions	14.10	Satisfactory	16.31	Very Satisfactory
Teamwork Management	14.43	Satisfactory	17.69	Very Satisfactory
Build Linkages and Networks	14.38	Satisfactory	15.92	Very Satisfactory
Ability to Lead and Follow	13.86	Satisfactory	16.54	Very Satisfactory
Motivation	14.29	Satisfactory	17.31	Very Satisfactory
Total Weighted Score (TWS)	71.05	Satisfactory	83.77	Very Satisfactory

(Interpretations based on NPR-APR scale: 91-100 = Outstanding, 81-90.99 = Very Satisfactory, 71-80.99 = Satisfactory, ≤70.99 = Poor)

The Interpersonal Relationship category likewise showed higher mean scores among master's degree holders, both rated as Outstanding. This implies that officers who have pursued graduate studies exhibit greater emotional intelligence, communication skills, and social awareness in dealing with colleagues and subordinates. These attributes are crucial in maintaining morale and cohesion within the organization. According to Bandura's (1999) social learning theory, formal education fosters self-regulation and empathy—key competencies that enhance workplace collaboration. Thus, the observed differences underscore how advanced education cultivates interpersonal maturity and leadership readiness among police officers.



**Table 7. Mean IPER Ratings of the PNP Personnel in Terms of Concern for the Organization**

Indicators	Without Master's Degree (Mean)	Verbal Interpretation	With Master's Degree (Mean)	Verbal Interpretation
Receptive to Ideas/Suggestions	14.1	Satisfactory	16.31	Very Satisfactory
Teamwork Management	14.43	Satisfactory	17.69	Very Satisfactory
Build Linkages and Networks	14.38	Satisfactory	15.92	Very Satisfactory
Ability to Lead and Follow	13.86	Satisfactory	16.54	Very Satisfactory
Motivation	14.29	Satisfactory	17.31	Very Satisfactory
Total Weighted Score (TWS)	71.05	Satisfactory	83.77	Very Satisfactory

(Interpretations based on NPR-APR scale: 91-100 = Outstanding, 81-90.99 = Very Satisfactory, 71-80.99 = Satisfactory, ≤70.99 = Poor)

A similar pattern was observed in Concern for the Organization, where master's degree holders again obtained higher ratings. This demonstrates their stronger commitment to institutional values, strategic alignment, and continuous improvement initiatives. Officers with advanced education are more likely to internalize organizational mission and vision, as emphasized by Mezirow's (1991) transformative learning theory, which posits that higher learning reshapes perspectives toward reflective and ethical action. The findings indicate that educational advancement encourages officers to contribute beyond personal performance, fostering institutional loyalty and proactive participation in organizational reforms.

**Table 8. Mean IPER Ratings of the PNP Personnel in Terms of Personal Qualities**

Indicators	Without Master's Degree	With Master's Degree	Verbal Interpretation
Moral Upright	4.81	4.92	Outstanding
Honest	4.81	4.92	Outstanding
Well-Groomed	4.81	4.92	Outstanding
Fair and Just	4.81	4.92	Outstanding
Loyal to the Organization	4.81	4.92	Outstanding
Civic-Minded	4.81	4.92	Outstanding
Responsible	4.81	4.92	Outstanding
Disciplined	4.81	4.92	Outstanding
Courteous/Tactful	4.81	4.92	Outstanding
Initiates Positive Action	4.81	4.92	Outstanding
Total Weighted Score	48.1	49.23	Outstanding

For Personal Qualities, both educational groups achieved uniform Outstanding ratings, with the master's group showing zero variance in scores. This "ceiling effect" indicates that attributes such as integrity, discipline, and professionalism are consistently high among Camp Olivas PNCOs, reflecting strong organizational culture and ethical training across ranks. The homogeneity of ratings in this area underscores that while education may enhance cognitive and managerial capabilities, core personal values remain universally upheld within the PNP.



**Table 9. Descriptive and Inferential Statistics by Educational Attainment**

Performance Dimension	Bachelor's Degree (Total Weighted Score)	Bachelor's SD	Master's Degree (Total Weighted Score)	Master's SD	U Statistic	p-value (U-test)	Effect Size (r)	Interpretation
Output	101.95	19.36	88.54	25.12	77.5	0.037	0.36	Medium effect; Significant difference
Job Knowledge	105.57	12.55	97.62	21.79	77.5	0.037	0.36	Medium effect; Significant difference
Work Management	78.71	19	91	22.24	77.5	0.037	0.36	Medium effect; Significant difference
Interpersonal Relationship	71.05	12.26	83.77	19.99	77.5	0.037	0.36	Medium effect; Significant difference
Concern for the Organization	71.05	12.26	83.77	19.99	77.5	0.037	0.36	Medium effect; Significant difference
Personal Qualities	48.1	4.02	49.23	0	—	—	—	Excluded from U-test (SD = 0)
Numerical Performance Rating (Total Weighted Score)	89.9	1.07	90.72	0.7	195.5	0.037	0.36	Medium effect; Significant difference

$p < .05$  indicates statistical significance

**Note:** Personal Qualities were excluded from t-test and U-test because the Master's group had zero variance (SD = 0), violating assumptions for both tests.

Inferential analysis using the Mann–Whitney U test revealed statistically significant differences in several IPER dimensions. Specifically, a significant difference was found in the Net Performance Rating (NPR) between master’s and bachelor’s degree holders (U = 195.5, p = 0.037, r = 0.39), indicating that educational attainment influences overall performance outcomes. The moderate effect size suggests that while academic advancement does not wholly determine performance, it contributes meaningfully to variations in specific competencies, particularly those related to analytical reasoning, management, and organizational contribution. The absence of variance in the Personal Qualities dimension excluded it from inferential testing.

The qualitative phase enriched these statistical results by capturing the lived experiences of officers who pursued graduate studies. Three major themes emerged from the thematic analysis: (1) Challenges in pursuing higher education, (2) Perceived impacts of educational advancement, and (3) Institutional support and future directions.

Participants described recurring barriers such as time management difficulties, financial constraints, and physical and mental exhaustion resulting from balancing academic work, operational duties, and family responsibilities. These challenges mirror findings by De Guzman and Panganiban (2022), who noted that police officers often struggle to maintain work–study balance due to irregular schedules and resource limitations. Despite these obstacles, respondents emphasized the transformative value of advanced education, citing improvements in leadership effectiveness, analytical decision-making, and communication skills. They also reported heightened confidence in policy interpretation and program implementation, suggesting that graduate learning enhances adaptability to organizational change.

In discussing perceived impacts, officers highlighted that master’s-level education deepened their understanding of administrative systems, ethics, and strategic governance—skills that complement operational experience. These reflections align with the skills-based framework of Katz (1955), which emphasizes the triad of technical, human, and conceptual skills in effective leadership. Graduate education strengthens the latter two, equipping officers for higher responsibilities and policy-oriented roles. Moreover, respondents perceived that postgraduate study instilled a renewed sense of professionalism and broadened their capacity for evidence-based decision-making, echoing Mezirow’s (1991) notion of transformative learning as a catalyst for critical reflection and behavioral change.

Integration of quantitative and qualitative findings revealed a consistent pattern: while bachelor’s degree holders excelled in operational efficiency and task-oriented output, master’s degree holders demonstrated superior leadership, communication, and organizational awareness. The results thus indicate a complementary relationship between educational levels, each contributing uniquely to the collective functionality of the police organization. This aligns with the broader understanding that effective policing requires both frontline competence and strategic insight (Roberg & Bonn, 2020).



The study's outcomes culminated in the formulation of the Sustainable Graduate Education Enhancement Program (SGEEP), a proposed framework that institutionalizes support for continuous educational development among PNP personnel. The program integrates policy recommendations such as flexible study schedules, scholarship expansion, recognition of postgraduate credentials in promotion systems, and structured mentoring mechanisms. The SGEEP aims to bridge existing gaps between academic preparation and operational practice, ensuring that higher education directly contributes to measurable performance improvement and organizational innovation within the Philippine National Police.

Through this systematic and integrated presentation of results and discussion, the study affirms that educational advancement meaningfully enhances certain dimensions of police performance—particularly those related to leadership, management, and organizational engagement—while sustaining excellence in personal integrity and operational commitment. The combined quantitative and qualitative evidence supports the continued professionalization of the PNP through graduate-level education, aligning with the strategic objectives of the PNP PATROL Plan 2030.

#### **4. CONCLUSIONS**

The findings of this study conclusively demonstrate that graduate education has a positive and significant influence on the work performance of Police Non-Commissioned Officers (PNCOs) assigned at Camp Olivias, San Fernando, Pampanga. Officers who have attained a master's degree exhibit enhanced competencies in work management, leadership, and interpersonal communication—dimensions that are essential for supervisory and managerial roles within the Philippine National Police (PNP). These results confirm that educational advancement plays a transformative role in equipping officers with the analytical, ethical, and strategic thinking skills demanded by modern policing.

While bachelor's degree holders consistently perform strongly in the operational aspects of policing, particularly in Output and Job Knowledge, master's degree holders demonstrate superior capabilities in Work Management, Interpersonal Relationships, and Concern for the Organization. This pattern indicates that the benefits of graduate education are not limited to academic achievement but extend to professional maturity and organizational engagement. Higher education strengthens officers' ability to plan strategically, manage resources effectively, and cultivate teamwork—qualities that align with the PNP's vision of a professional, trusted, and service-oriented organization.

It is also evident that the challenges faced by police personnel in pursuing graduate education are primarily structural rather than personal. Constraints such as demanding schedules, financial limitations, and physical and mental fatigue continue to hinder academic progression. Nonetheless, the resilience and determination demonstrated by officers reveal a strong internal motivation to pursue self-improvement and leadership excellence. This highlights the importance of institutional mechanisms that make higher education more accessible and sustainable for all PNP personnel.

Graduate education further aligns with the institutional goals of the PNP and the broader objectives of PATROL Plan 2030. The competencies cultivated through postgraduate studies—strategic management, policy formulation, ethical leadership, and critical analysis—are precisely those required to advance organizational transformation and performance accountability. Thus, educational advancement should be regarded not merely as a personal pursuit but as an organizational investment that contributes directly to the professionalization and modernization of the police force.

Lastly, the consistently high ratings in Personal Qualities among all respondents underscore that values such as discipline, integrity, and professionalism are deeply ingrained in the PNP culture, regardless of educational level. Therefore, the contribution of graduate education lies primarily in enhancing higher-order leadership and organizational competencies, while the foundational virtues of service and integrity remain strong across all ranks.

#### **5. RECOMMENDATIONS**

Drawing from the findings and conclusions, this study proposes several evidence-based recommendations to strengthen institutional support for educational advancement and to maximize its positive impact on police performance.

First, the Philippine National Police, in partnership with the Commission on Higher Education (CHED) and accredited universities, should establish flexible learning arrangements tailored to the unique demands of police work. Graduate programs could adopt modular, blended, and weekend formats, allowing officers to balance academic engagement with operational responsibilities. These adaptive modalities will make higher education more feasible for officers with irregular schedules and high workloads.



Second, the PNP should implement a comprehensive scholarship and financial assistance system to reduce the economic burden of graduate education. A tiered scheme may prioritize high-performing officers for full scholarships while extending partial support to other qualified personnel. By institutionalizing such programs, the PNP affirms that academic advancement is not an individual luxury but an organizational priority tied to capability building and leadership succession.

Third, the establishment of an Academic Development Leave Policy is recommended. This would allow officers enrolled in graduate programs to take limited study leave per semester without compromising operational readiness. Such a policy would reduce work-study conflict, promote academic success, and safeguard officer well-being.

Fourth, the PNP may consider specialized career pathways for master's degree holders. Findings indicate that officers with advanced education excel in managerial and interpersonal domains; hence, creating career tracks in strategic planning, community engagement, policy development, and training management would allow these officers to apply their competencies more effectively. This structure also reinforces merit-based advancement, linking academic qualifications with organizational leadership roles.

Finally, the implementation of the Strategic Graduate Education Enhancement Program (SGEEP) is strongly endorsed. SGEEP integrates flexible academic delivery, scholarship incentives, study-leave mechanisms, and career progression pathways into a unified system of educational support. Its overarching goal is to institutionalize graduate education as a strategic pillar of leadership development and organizational reform within the PNP. Through this program, the police force can ensure that higher education translates into measurable improvements in operational performance, ethical governance, and institutional effectiveness.

<b>SGEEP FRAMEWORK</b>			
<b>Objective</b>	<b>Strategy/Action</b>	<b>Responsible Office/P-</b>	<b>Expected Outcome</b>
Address scheduling conflicts	Establish flexible graduate programs (online, modular, week-end)	PNP Training Service, CHED, Partner Universities	Increased accessibility of graduate education despite irregular duty hours
Reduce financial burden	Implement tiered scholarship and tuition subsidy scheme	PNP Directorate for Comptrollership (DC), CHED, LGUs	Greater enrollment in graduate programs; reduced attrition due to cost
Balance work and study	Enact Academic Development Leave policy	PNP DPRM, Regional Directors	Personnel able to fulfill academic requirements without compromising oper-
Maximize competencies of master's graduates	Create specialized career tracks in policy, planning, and training	PNP NHQ, CHED, PNP, Partner Universities	Systematic and sustained support for police educational

**Figure 3. Strategic Graduate Education Enhancement Program [SGEEP] Framework**

Furthermore, it is recommended that future researchers expand upon the SGEEP framework by conducting longitudinal evaluations or larger-scale studies involving multiple police regional offices. Such research would enhance empirical validation and facilitate the continuous refinement of education-based performance programs within the PNP. Through sustained research and implementation, graduate education can become a cornerstone of a modernized, competent, and integrity-driven national police service.

**REFERENCES**

1. Alpert, G. P., Dunham, R. G., & Strohshine, M. S. (2019). *Policing: Continuity and change*. Waveland Press.
2. Bandura, A. (1999). *Social cognitive theory of personality*. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (2nd ed., pp. 154-196). Guilford Press.
3. Bloom, B. S. (1956). *Taxonomy of educational objectives: The classification of educational goals*. Longmans, Green and Co.
4. Braun, V., & Clarke, V. (2006). *Using thematic analysis in psychology*. *Qualitative Research in Psychology*, 3(2), 77-101.



<https://doi.org/10.1191/1478088706qp063oa>

5. Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Lawrence Erlbaum Associates.
6. Cordner, G. (2018). *Police administration* (9th ed.). Routledge.
7. Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). Sage Publications.
8. Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research* (3rd ed.). Sage Publications.
9. De Guzman, M. R. T., & Panganiban, J. R. (2022). *Work-study balance and professional development among police officers pursuing graduate education in the Philippines*. *Philippine Journal of Public Administration*, 66(1), 44-59.
10. Katz, R. L. (1955). *Skills of an effective administrator*. *Harvard Business Review*, 33(1), 33-42.
11. Mezirow, J. (1991). *Transformative dimensions of adult learning*. Jossey-Bass.
12. Republic Act No. 6975. (1990). *An Act establishing the Philippine National Police under a reorganized Department of the Interior and Local Government*. *Official Gazette of the Republic of the Philippines*.
13. Republic Act No. 8551. (1998). *The Philippine National Police Reform and Reorganization Act of 1998*. *Official Gazette of the Republic of the Philippines*.
14. Roberg, R. R., & Bonn, S. A. (2020). *Higher education and policing: Where are we now?* *Policing: An International Journal*, 43(5), 863-879. <https://doi.org/10.1108/PIJPSM-05-2019-0077>