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Study of Security Officers in Selected Colleges and Universities in CAMANAVA Towards Campus Security Framework

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Abstract

In the academic settings of the CAMANAVA region, ensuring campus safety is important, as reflected in the study titled "Study of Security Officers in Selected Colleges in CAMANAVA Towards Campus Security" is aligned with theory of Crime Prevention Through Environmental Design. This research explores the efficacy of security officers in protecting campuses, guided by CPTED principles. It investigates patrol frequency, surveillance technology usage, access control enforcement, and territorial ownership reinforcement to assess current security practices. While there's positivity about security officers' roles in monitoring and enforcing access, maintenance and management issues pose hurdles. Significant links between security officer performance and environmental factors, maintenance problems, and visibility-blocking designs are evident. Clear connections between security officer performance and environmental factors, maintenance issues, and design impediments emerge. Recommendations include standardizing maintenance, improving budget allocation, and fostering closer collaboration, echoing the principles of the Campus Safety Blueprint. This holistic framework encompasses assessment, policy development, training, technological integration, maintenance protocols, community engagement, collaboration, and continuous evaluation, aligning seamlessly with the study's objectives. By adhering to the principles outlined in the Campus Safety Blueprint, this research aims to contribute to the creation of secure, supportive learning environments in CAMANAVA's educational institutions.

Keywords: Campus safety; Security; Security officers; CAMANAVA region; University; Crime Prevention Through Environmental Design (CPTED)

1. Introduction

Security remains a top priority across all sectors, including higher education institutions where ensuring the safety of the academic community is critical. In particular, security officers play a central role in upholding peace and order within school premises, reducing crime risks, and creating an environment conducive to learning. The effectiveness of these officers in campus settings is influenced not only by their presence but also by the integration of strategic safety measures and environmental design. According to Woodruff (2022), the key responsibility of campus security officers lies in maintaining a strong, visible presence and fostering trust within the campus community. This visibility is essential in deterring crime, managing emergencies, and cultivating a secure learning atmosphere.

Historically, the evolution of school safety measures has been shaped by external threats and public incidents. The Columbine tragedy, as cited by Lawrence (2007) and the National Institute of Education (1978), shifted school security focus from property crimes to violence prevention. This shift led to policies that introduced surveillance systems, the deployment of trained security personnel, and coordination with local law enforcement (U.S. Department of Education, 2007a, 2007b). These transformations have emphasized the need for institutions to adopt comprehensive and proactive security frameworks.

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In the Philippine context, Article XIV, Section 4 (1) of the 1987 Constitution mandates the State to regulate and supervise educational institutions. However, the growing threats to campus safety have prompted calls for stronger campus security policies and improved transparency in informing students, parents, and faculty about security protocols (Campus Security Act, 2019). Mabanglo (2020) stresses that no educational institution is immune from security threats, thus highlighting the need for stakeholders—including administrators, faculty, staff, and students—to have a thorough understanding of campus safety concerns and strategies.

Security officers must possess a diverse set of skills to be effective. Active listening and critical thinking are crucial, especially when managing student populations or de-escalating conflicts. Anyon (2017) emphasized the importance of training that fosters active learning and situational responsiveness. Omer (2021) noted the necessity for calm and calculated decision-making under pressure, especially in student-dense settings. Barte et al. (2022) further emphasized that gaps in training can severely affect the readiness and responsiveness of security officers, necessitating comprehensive skill development programs focused on communication, critical thinking, and tactical awareness.

This study is grounded in the theoretical lens of Crime Prevention Through Environmental Design (CPTED), originally proposed by C. Ray Jeffery in 1971. CPTED emphasizes how the built environment influences criminal behavior and how strategic design can deter crime. Setyawan and Larasati (2021) assert that crime can be prevented through proper manipulation of the physical environment, including lighting, visibility, and access control. Piroozfar et al. (2019) further support this, identifying that territorial reinforcement, defensible spaces, and surveillance are crucial design components in crime deterrence.

Applying this framework, the study investigates security practices in CAMANAVA universities, particularly in relation to their interaction with the environment, their use of surveillance technology, and their collaboration with other departments. As Monchuk et al. (2019) explain, design elements such as poor surveillance or layout flaws can increase criminal opportunity. These perspectives are reinforced by studies like those of Smith and Brown (2018) and Jones et al. (2019), who highlight the effectiveness of CPTED strategies—such as improved lighting, territoriality, and trained personnel—in reducing campus crime and enhancing safety perceptions. In the Philippine setting, Cruz (2020) reported that despite budgetary and awareness challenges, the CPTED model holds promise for enhancing public university security, provided that institutions engage their security personnel and stakeholders in policy design.

The importance of this study is underscored by the realities faced by institutions in CAMANAVA—areas surrounded by densely populated residential zones, increasing the need for responsive and adaptive campus security systems (Aydinan, 2023; Abad, 2021). The research investigates the security officers' effectiveness in multiple dimensions: patrol frequency, surveillance usage, community feedback responsiveness, interdepartmental collaboration, breach response, and access control enforcement. Furthermore, it explores the influence of environmental features—such as signage, natural barriers, and visibility-obstructing design—on security operations, in line with previous findings by Agbonkpolor (2020) and Abiodun et al. (2018), who noted that environmental elements significantly influence security outcomes.

Using a quantitative approach, this study evaluates whether the effectiveness of campus security officers is significantly affected by visibility-obstructing designs, environmental factors, institutional practices, and maintenance-related issues. Specifically, it tests four hypotheses: (H1) Visibility-obstructing designs affect monitoring effectiveness; (H2) Environmental factors influence security officers' performance; (H3) Security practices and campus infrastructure reinforce territorial identity; and (H4) Maintenance and management problems impact officers' ability to ensure safety. These hypotheses align with empirical studies suggesting that physical conditions and institutional coordination significantly affect campus security outcomes (Bergeron, 2016; Beard, 2010; Barte et al., 2022).

The research adopts a design that begins with profiling respondents based on demographic variables and their exposure to relevant training. It then measures the effectiveness of security officers in key operational areas while assessing the role of environmental and structural conditions in shaping outcomes. Factors such as patrol visibility, access control, visitor monitoring, and territorial reinforcements are critically analyzed. The framework also includes assessing perceptions of issues like outdated infrastructure, inefficient maintenance systems, and lack of interdepartmental coordination—factors identified by Daud et al. (2022; 2023) and Cipres (2022) as pivotal in either supporting or hindering security enforcement.

The anticipated outcome of this study is a **proposed Campus Safety and Security Framework** designed to enhance existing protocols and practices within CAMANAVA colleges and universities. This framework, derived from analyzed quantitative data and aligned with CPTED principles, seeks to provide evidence-based recommendations for improving campus safety. The goal is not only to protect individuals on campus but to foster a holistic sense of ownership,

belonging, and identity among stakeholders—thereby making schools not just safer, but more inclusive and empowering.

Ultimately, this study aims to serve university administrators, security personnel, students, faculty, and researchers alike by contributing valuable insights that support safer learning environments. It recognizes that true campus safety arises from a combination of effective human oversight, collaborative governance, and intelligent environmental design—each of which must be measured, monitored, and continuously improved.

2. Methodology

This study employs a descriptive quantitative research design to examine the effectiveness of security officers in selected colleges and universities within the CAMANAVA area. The quantitative approach focuses on collecting numerical data through structured survey questionnaires, enabling the identification of patterns, connections, and trends related to campus security. Through objective measurements and statistical analysis, this design facilitates a broad understanding of stakeholder perceptions—drawing insights from students, faculty, staff, and security personnel. Descriptive research is particularly valuable in summarizing key characteristics of a population and allows the calculation of measures such as mean, median, and standard deviation, which help provide a clear overview of the data (McCombes, 2019). The results can also form a foundational basis for future research, offering a platform for more specific and in-depth studies. The research specifically targets selected institutions in the CAMANAVA area, including the University of Caloocan City, La Consolacion College, City of Malabon University, Arellano University, Navotas Polytechnic College, Governor Andres Pascual College, Pamantasan ng Lungsod ng Valenzuela, and St. Louie College. Participants from these institutions will be chosen through stratified random sampling, ensuring representation across subgroups defined by variables such as age, gender, sex, and educational attainment. This technique enhances the representativeness of the sample by drawing from each subgroup proportionally. Data collection will be conducted through the administration of surveys and structured questionnaires aligned with the research objectives. Prior to distributing the questionnaires, formal letters will be submitted to the respective universities to secure permission and consent. Participants will also receive a briefing to clarify the purpose of the study and the content of the survey, minimizing confusion and promoting accurate responses. The study strictly adheres to ethical standards, ensuring informed consent from all participants, maintaining the anonymity and confidentiality of their responses, securing voluntary participation, and conducting debriefing sessions after data collection. To analyze the data, several statistical tools will be utilized. Frequency and percentage will be employed to describe the demographic profile of the respondents, providing a basic summary of the sample characteristics. The weighted mean will be used to compute average responses across the various assessment indicators, taking into account the frequency and assigned weight of each response option (Jim, 2023). This allows a nuanced understanding of overall perceptions related to campus security. In examining the relationships between variables, Spearman's Rank Correlation will be applied to determine the strength and direction of association between ranked data. This test is particularly useful for measuring monotonic relationships, where variables consistently increase or decrease together. A positive coefficient indicates a direct relationship, while a negative value suggests an inverse one. To compare means between groups, the T-Test will be used as a tool for hypothesis testing, helping assess whether observed differences in perceptions or effectiveness are statistically significant (Bevans, 2023). This will help evaluate the impact of certain factors or interventions across different respondent groups or institutions. Lastly, the Likert scale will be utilized to interpret responses to the questionnaire. Responses will be categorized across four levels—ranging from "Not Effective" to "Very Effective"—based on their assigned point values. This scale will help simplify complex response data into interpretable categories, aiding in the overall assessment of campus security practices. This comprehensive methodological framework ensures a structured and reliable approach to exploring campus safety in the CAMANAVA region and contributes valuable data toward developing an improved, evidence-based security system for educational institutions.

3. Results and Analysis

3.1. Educational Institutions of the Respondents

The respondents of this study were evenly drawn from eight participating colleges and universities across the CAMANAVA area, with each institution contributing 30 participants, amounting to 12.5% of the total respondent population. This resulted in a total of 240 respondents, ensuring a balanced distribution across all institutions involved. From Caloocan City, both the University of Caloocan City and La Consolacion College were included. In Malabon City, the respondents came from the City of Malabon University and Arellano University. Navotas City was represented by Navotas Polytechnic College and Governor Andres Pascual College, while Pamantasan ng Lungsod ng Valenzuela and St. Louis University represented Valenzuela City. Each group of 30 respondents consisted of individuals from various roles

within the academic community, including students, administrative personnel, teaching and non-teaching staff, and security officers. This structure allowed the study to gather a wide range of perspectives regarding campus security practices and environmental conditions across different institutions. The equal representation from each school provides a strong foundation for comparative analysis and ensures that the insights derived are not skewed toward any particular institution or group. This diverse yet balanced sampling enhances the overall validity of the research, offering a comprehensive view of campus security effectiveness and maintenance challenges. As such, the findings are more likely to be reflective of general conditions within similar educational settings, making them valuable for policy-making, institutional planning, and future research.

3.2. Distribution of Respondents Within Their Educational Institutions

The composition of respondents across the participating educational institutions reflects a balanced representation of various campus roles, with students making up the largest group. At the University of Caloocan City, 30 individuals participated in the study, consisting of 14 students, 5 administrative personnel, 5 security officers or guards, and 6 teaching or non-teaching personnel. This composition mirrors a similar pattern found across other institutions, where students consistently account for the majority of respondents. La Consolacion College also had 30 participants, with students comprising more than half the respondents at 53.33%. The remaining participants included 4 administrative staff, 3 security officers, and 7 teaching or non-teaching personnel. A similar distribution is observed at the City of Malabon University, where 60% of respondents were students, alongside smaller groups of administrative staff, security personnel, and academic staff. Arellano University and Gov. Andres Pascual College also reported high student representation, each with 18 and 16 students respectively. These institutions included a mix of support and security personnel, with administrative and teaching/non-teaching staff making up the remaining portion of the respondent base. Navotas Polytechnic College showed a slightly more diversified breakdown, where students still comprised half of the total, accompanied by 6 administrative personnel, 2 security officers, and 7 teaching or non-teaching staff. Pamantasan ng Lungsod ng Valenzuela had a slightly different profile, with students accounting for 43.33% of respondents. This school had the highest proportion of teaching and non-teaching personnel at 26.67%, suggesting a greater academic staff involvement in the study. Security personnel were also well-represented here, comprising 20% of the total. Lastly, St. Louis University maintained the common trend, with students again making up 60% of respondents, alongside 3 administrative personnel, 4 security officers, and 5 teaching or non-teaching staff. In summary, across all institutions, students formed the majority respondent group, while administrative, security, and teaching staff were consistently represented. The distribution ensures a well-rounded collection of data from diverse perspectives within each institution, supporting a comprehensive evaluation of campus security effectiveness.

3.3. Distribution of Respondents by Age Across Participating Universities

The distribution of respondents across age groups reveals notable trends in the representation of various roles within the participating educational institutions. In most universities, individuals aged 18 to 24 years primarily comprise the student population, making up the majority within that age bracket. For instance, at the University of Caloocan City, 46.67% of respondents fall into this age group, all of whom are students. Meanwhile, the 35–44 age bracket in this university includes the bulk of the teaching, administrative, and security staff, with security officers accounting for 13.33%, administrative personnel 10%, and teaching/non-teaching staff another 13.33%. A similar trend is observed at La Consolacion College, where 56.67% of respondents are students aged 18–24. This institution also shows a concentration of older employees, particularly those aged 35–44, who occupy positions in teaching and security services. Notably, 36.67% of respondents in this age group serve as teaching or non-teaching personnel. At the City of Malabon University, the trend continues with 46.67% of respondents in the 18–24 age range being students. However, there is a more diverse distribution across other age groups, including security personnel and administrative staff aged 25–54, indicating a spread of roles across age demographics. Arellano University shows a similar breakdown, where younger students dominate the 18–24 age group at 43.33%, while older respondents, particularly those in the 25–44 age range, serve in support and academic roles. Navotas Polytechnic College follows the established pattern with 56.67% of its respondents being students aged 18–24. Security guards, administrative staff, and teaching personnel are more commonly found in the 35–44 and 45–54 age brackets, which highlights the tendency for older respondents to occupy institutional support and leadership roles. At Governor Andres Pascual College, students aged 18–24 comprise 60% of the total respondents, making it one of the institutions with the highest proportion of younger participants. Administrative and teaching personnel in the 35–44 range also make up a notable share of the respondent pool, accounting for a combined 30%. Pamantasan ng Lungsod ng Valenzuela exhibits a more varied distribution, although students aged 18–24 still represent a significant portion at 46.67%. Meanwhile, the 25–34 age group includes a mix of respondents from multiple roles, including teaching staff, administrative workers, and security personnel, reflecting a more balanced workforce. Finally, St. Louis College features a slightly different trend. While students aged 18–24 still represent the largest group at 33.33%, the college has a stronger presence of personnel in the 25–34 and 35–44 age brackets. These include a significant number of security officers and administrative staff, suggesting a more evenly

distributed age demographic across various institutional roles. Overall, the quantitative data across all participating universities consistently show that the youngest age group (18–24) is primarily composed of students, while older age groups (25–54) are predominantly filled by faculty, staff, administrative personnel, and security officers. This reflects a clear delineation of roles by age, with younger individuals actively engaged in learning, and older individuals fulfilling operational, academic, and administrative responsibilities.

3.4. Gender Distribution of Respondents Across Educational Institutions

The gender distribution among the 240 respondents from eight educational institutions in the CAMANAVA area shows a relatively balanced representation of males and females, providing strong quantitative support for the study's inclusivity. Each institution contributed 30 respondents, resulting in equal institutional representation of 12.5% across the entire sample. At the University of Caloocan City, females slightly outnumbered males with 18 and 12 respondents respectively. In contrast, La Consolacion College showed a higher male representation with 20 males and 10 females. City of Malabon University had 16 females and 14 males, while Arellano University also leaned toward female respondents with 17 females and 13 males. Navotas Polytechnic College recorded the largest gender gap in favor of females, with 22 females and only 8 males. Governor Andres Pascual College reported an equal distribution of 15 males and 15 females, representing a perfect gender balance. At Pamantasan ng Lungsod ng Valenzuela, there were more males than females, with 17 and 13 respectively, whereas St. Louis University had 16 female and 14 male respondents. Quantitatively, these figures reflect a fairly even distribution of gender across roles and institutions, which ensures a representative dataset for analyzing perceptions and effectiveness related to campus security. The slight variations in male-to-female ratios across institutions provide nuanced insights without compromising the overall balance of the study's demographic structure.

3.5. Distribution of Respondents Within Their Educational Attainment

The distribution of respondents according to their educational attainment across the eight participating universities in CAMANAVA shows a clear dominance of individuals with some college education, primarily students, supported by a notable number of personnel with higher educational qualifications across administrative, security, and teaching roles. At the University of Caloocan City, 14 out of 30 respondents (46.67%) are students with some college education, followed by 1 security officer (3.33%) and 1 administrative personnel (3.33%) within the same bracket. Additionally, 1 security officer (3.33%) holds a bachelor's degree, while 4 administrative personnel (13.33%) and 2 teaching/non-teaching staff (6.67%) also hold bachelor's degrees. The institution also has 2 respondents (6.67%) in the teaching/non-teaching category with master's degrees and 2 others (6.67%) holding doctorate degrees. At La Consolacion College, 16 students (53.33%) have some college education, along with 2 administrative staff (6.67%) and 2 teaching/non-teaching staff (6.67%) in the same category. Four security officers (13.33%) have completed high school. The institution has a higher concentration of postgraduate qualifications among teaching staff, with 6 (20.00%) holding master's degrees. No respondents reported bachelor's or doctorate degrees. For City of Malabon University, the majority again fall under the some college level, with 18 students (60.00%), 3 security officers (10.00%), and 3 administrative personnel (10.00%) in this category. There are 3 administrative personnel (3.33%) with bachelor's degrees, 2 teaching/non-teaching staff (6.67%) with master's degrees, and 1 (3.33%) with a doctorate degree. No respondents were reported at the high school level. Arellano University presents a similar profile with 18 students (60.00%) under some college education, 4 security officers (13.33%) and 2 administrative personnel (6.67%) holding only high school credentials. One administrative staff (3.33%) holds a bachelor's degree, while 4 teaching/non-teaching personnel (13.33%) hold master's degrees and 1 (3.33%) has a bachelor's degree. At Navotas Polytechnic College, 19 students (63.33%) are in the some college category, joined by 2 security officers (6.67%) and 1 administrative staff (3.33%). Two security officers (6.67%) and 2 administrative personnel (6.67%) have high school-level education. There is also 1 security officer (3.33%) with a bachelor's degree and 3 teaching/non-teaching staff (10.00%) holding master's degrees. For Governor Andres Pascual College, 16 students (53.33%) have some college education, while 3 security officers (10.00%) fall under the same bracket. Among those with bachelor's degrees, 1 security officer (3.33%), 5 administrative staff (16.67%), and 4 teaching/non-teaching staff (13.33%) were recorded. One teaching staff member (3.33%) has a master's degree. There are no respondents with high school or doctorate degrees. At Pamantasan ng Lungsod ng Valenzuela, 17 students (56.67%) have some college education, along with 3 security officers (10.00%) and 2 administrative personnel (6.67%). One administrative staff member (3.33%) holds a bachelor's degree. Two administrative personnel (6.67%) and 4 teaching/non-teaching personnel (13.33%) have master's degrees. No respondents in this institution reported high school or doctorate-level education. Lastly, at St. Louis University, 18 students (60.00%) are in the some college category, accompanied by 4 security officers (13.33%). Three administrative personnel (10.00%) and 2 teaching/non-teaching personnel (6.67%) hold bachelor's degrees, while 3 members of the teaching/non-teaching staff (10.00%) possess master's degrees. No respondents were reported at the high school or doctorate level.

Across all institutions, a total of **142 out of 240 respondents (59.17%)** are students with some college education, indicating a dominant educational profile in this category. **Security officers** are most commonly found with high school or some college backgrounds, while **administrative personnel** frequently hold bachelor's degrees. **Teaching and non-teaching staff** show a significant concentration of postgraduate qualifications, with a combined **master's and doctorate degree representation exceeding 20%** in several institutions. This comprehensive breakdown highlights the diverse educational background of campus populations, providing a solid basis for evaluating security awareness and practices within each institutional context.

3.6. Distribution of Respondents with Their Completed Training Programs and Seminars

The distribution of respondents according to their completed training programs and seminars highlights the strong emphasis placed on security education across all participating institutions. At the University of Caloocan City, students make up the majority with 14 respondents or 46.67%, followed by 5 administrative personnel and 5 security officers, each accounting for 16.67%. The trainings covered a wide array of topics including Introduction to Security Operations, Emergency Response Procedures, Patrol and Surveillance Techniques, Communication Skills, Report Writing, and Legal Aspects of Security. Teaching and non-teaching personnel, representing 20% of the group, primarily completed programs related to documentation and legal aspects of security. At La Consolacion College, students again form the majority with 16 respondents or 53.33%, followed by teaching and non-teaching personnel at 23.33%, administrative personnel at 13.33%, and security officers at 10%. Trainings covered core competencies such as Report Writing, Physical Security Measures, Emergency Response Procedures, and Legal Aspects of Security, indicating broad skill exposure across all roles. City of Malabon University reflects a similar pattern, with 18 students comprising 62.07% of respondents. Administrative and security personnel each account for 10.34%, while teaching and non-teaching personnel make up 17.24%. Participants completed trainings in Introduction to Security Operations, Communication Skills, Report Writing, Physical Security Measures, and Legal Aspects of Security, showing a consistent institutional focus on well-rounded preparedness. At Arellano University, students once again lead in participation with 18 respondents or 60%, followed by 4 security officers (13.33%), 5 teaching and non-teaching staff (16.67%), and 3 administrative personnel (10%). Completed training modules included Emergency Response Procedures, Patrol and Surveillance Techniques, and Legal Aspects of Security, demonstrating an even distribution of training relevance across various campus roles. Governor Andres Pascual College reported 16 student participants (53.33%), along with 5 administrative personnel (16.67%), 4 security officers (13.33%), and 5 teaching and non-teaching staff (16.67%). Training sessions focused on Patrol and Surveillance Techniques, Emergency Response Procedures, Communication Skills, and Report Writing, again pointing to a comprehensive approach across both academic and support personnel. Navotas Polytechnic College shows similar results, with 15 students accounting for 43.33%, 6 teaching and non-teaching personnel at 26.67%, 6 administrative staff at 20%, and 2 security officers at 6.67%. Key topics of training included Emergency Response, Communication Skills, and Legal Aspects of Security, with a strong presence of administrative and instructional staff in these sessions. Pamantasan ng Lungsod ng Valenzuela had 13 students (60.00%), 6 security officers (13.33%), 8 teaching and non-teaching staff (16.67%), and 3 administrative personnel (10%). Training areas included Patrol and Surveillance, Emergency Response, and Physical Security Measures, reflecting the university's broad training commitment among students and staff alike. St. Louis University also reported a majority of student participants with 18 respondents (60.00%), while security officers accounted for 13.33%, teaching and non-teaching personnel 16.67%, and administrative personnel 10%. Participants in this institution received extensive training in areas such as Emergency Response Procedures, Report Writing, and Legal Aspects of Security.

Across all eight institutions, the data shows that students consistently represent the highest percentage of those who have completed safety and security training, underscoring the importance of equipping the student body with essential emergency and situational response skills. Security officers and administrative staff also demonstrate active engagement in training programs, often completing more technical modules such as Patrol and Surveillance Techniques and Report Writing. Teaching and non-teaching personnel regularly participate in legal and procedural trainings, indicating their supportive role in maintaining a secure campus environment. Quantitatively, the results suggest an institution-wide effort across CAMANAVA colleges to strengthen campus preparedness and develop comprehensive safety knowledge across all levels of university operations.

3.7. Respondents' Evaluation of Security Officers' Frequency of Patrols

The evaluation of security officers' frequency of patrols across various educational institutions reveals consistently positive ratings, with most groups rating the patrol frequency as either "Effective" or "Very Effective." At the University of Caloocan City, administrative personnel gave the highest rating with a mean score of 3.73 and a very low standard deviation of 0.05803, indicating strong agreement and consistent responses. Security officers rated patrol frequency slightly lower at 3.53 with no variation (standard deviation of 0.00000), while students and teaching/non-teaching personnel reported means of 3.48 and 3.44 respectively, also reflecting strong agreement with minimal variation. La

Consolacion College shows similarly high results, with administrative personnel reporting a perfect consensus mean of 3.75. Students rated patrol frequency at 3.60, indicating strong agreement, while teaching/non-teaching staff rated it at 3.48 and security officers at a lower 3.22, suggesting general agreement with greater response variability (standard deviation of 0.29886). City of Malabon University had the highest mean ratings from both administrative personnel and security officers, each scoring 3.89. These scores fall into the "Very Effective" range, though both groups showed a higher standard deviation of 0.333, indicating slightly varied perceptions. Students rated patrols as effective with a mean of 3.33, while teaching/non-teaching staff gave the lowest score among the group at 3.00, still within the effective range. Arellano University results were slightly more mixed. Students reported strong agreement with a mean of 3.65, while administrative personnel also gave a favorable rating of 3.56. Teaching/non-teaching personnel rated patrol frequency lower at 2.73, showing only moderate agreement, and security officers provided a rating of 3.08, suggesting general effectiveness with moderate variability in perception. At Navotas Polytechnic College, security officers gave a strong rating of 3.67, although their standard deviation was the highest across all institutions at 0.40825, indicating notable differences in individual responses. Administrative personnel (mean = 3.28), students (3.42), and teaching/non-teaching personnel (3.10) all agreed with the frequency of patrols, though with slightly less enthusiasm. Gov. Andres Pascual College presented a split view: security officers rated patrols very highly with a mean of 3.83, while administrative personnel gave the lowest rating in the dataset at 2.93. Students showed strong agreement with a mean of 3.63, and teaching/non-teaching staff provided a moderate rating of 3.33. At Pamantasan ng Lungsod ng Valenzuela, all respondent groups rated patrol frequency positively. Administrative personnel had a mean of 3.56, security officers rated it at 3.72, students at 3.62, and teaching/non-teaching staff at 3.67. Despite a higher standard deviation among security officers (0.42214), the ratings indicate strong perceived effectiveness across roles. St. Louis University results show administrative personnel strongly agreeing with patrol frequency (mean = 3.67). Security officers, students, and teaching/non-teaching personnel all provided similar scores in the range of 3.33 to 3.35, indicating overall agreement with moderate variability in perception.

The quantitative data across institutions suggest that the frequency of security patrols is generally viewed as effective to very effective by all respondent categories. Administrative personnel tend to give consistently higher and less variable ratings, while security officers, despite being evaluators of their own work, show more fluctuation in their assessments across schools. Students and teaching/non-teaching personnel mostly agree on the effectiveness of patrols, though some institutions reveal moderate differences in how patrol presence is perceived. Overall, the findings reflect a favorable outlook on patrol frequency, contributing to the perception of campus safety.

3.8. Respondents' Assessment of Security Officers' Utilization of Surveillance Technology

The assessment of surveillance technology utilization by security officers reveals a generally positive response across all participating institutions and respondent categories, with most mean ratings falling within the "Effective" to "Very Effective" range. At the University of Caloocan City, administrative personnel gave a high mean score of 3.8000 with no variation, indicating strong consensus that surveillance technology is effectively used. Security officers followed with a mean of 3.5333, students at 3.4762, and teaching/non-teaching personnel at 3.4444, all indicating strong agreement and consistent perceptions, especially among teaching staff, who showed no deviation. La Consolacion College reflected a similar trend. Administrative personnel rated the utilization highly at 3.7500, with zero variability. Students had a mean of 3.5208 and teaching/non-teaching staff rated it at 3.4762, both reflecting strong agreement. However, security officers had a lower mean of 3.4444, with a high standard deviation of 0.88192, indicating inconsistent perceptions within their group. At the City of Malabon University, administrative personnel reported a perfect mean score of 4.0000, the highest across all institutions, showing unanimous strong agreement. Security officers followed with a high mean of 3.7778, students at 3.5926, and teaching/non-teaching personnel at a lower 2.8889, which leans toward neutrality, highlighting some concern or uncertainty within this group. Arellano University presented a mean of 3.7778 from administrative personnel, indicating strong agreement, while security officers rated it at 3.1667, students at 3.6296, and teaching/non-teaching staff at 2.8667. The latter showed the widest variation with a standard deviation of 0.63246, suggesting mixed opinions and lower satisfaction among faculty and staff. At Navotas Polytechnic College, administrative personnel reported a high level of agreement with a mean of 3.7222. Students and security officers rated it lower at 3.4000 and 3.1667, respectively, showing general agreement but with some reservations. Teaching/non-teaching staff rated it exactly 3.0000, reflecting neutrality in their evaluation. Gov. Andres Pascual College showed administrative personnel leaning toward neutrality with a mean of 2.8667, the lowest among all admin groups. In contrast, security officers strongly agreed with a perfect mean of 3.5000. Students provided a favorable assessment with a mean of 3.4472, while teaching/non-teaching staff again rated it neutrally at 3.0000, with noticeable variation. Pamantasan ng Lungsod ng Valenzuela showed consistently strong agreement across all roles. Administrative personnel rated utilization at 3.5556, security officers at 3.7222, students at 3.6923, and teaching/non-teaching staff at 3.5238. All scores fall into the "Very Effective" category, with very low standard deviations, reflecting widespread satisfaction with surveillance practices. At St. Louis University, administrative personnel reported a mean of 3.5556, while security

officers, students, and teaching/non-teaching personnel had closely clustered ratings of 3.3333, 3.3519, and 3.3333, respectively. These scores suggest general agreement, although slightly lower than other institutions, with minimal variability in responses.

Administrative personnel across institutions generally provided higher and more consistent evaluations of surveillance technology utilization. Students and security officers also rated the implementation positively, though their ratings displayed more variation depending on the institution. Teaching and non-teaching personnel, on the other hand, showed the widest range in assessment, with some institutions reflecting strong agreement and others leaning toward neutrality. Overall, the data indicates that the majority of respondents view surveillance technology as effectively utilized by campus security, with particular strength in institutions such as the City of Malabon University and Pamantasan ng Lungsod ng Valenzuela, where all roles reported high levels of agreement.

3.9. Respondents' Evaluation of Security Officers' Engagement with Campus Community Feedback

The assessment of security officers' engagement with campus community feedback reveals mostly favorable evaluations across respondent categories, with mean scores generally falling within the "Effective" to "Very Effective" range. At the University of Caloocan City, administrative personnel rated engagement efforts as very effective with a high mean of 3.8000 and no variability. Security officers gave a slightly lower but still effective rating of 3.4667, while students and teaching/non-teaching personnel rated engagement at 3.2436 and 3.2222 respectively, both reflecting effectiveness with moderate variation. At La Consolacion College, administrative personnel also reported a very effective rating of 3.7500 with no deviation. Students provided a slightly higher mean of 3.5833, and teaching/non-teaching staff rated engagement at 3.5238—both within the "Very Effective" range. Security officers rated engagement at 3.3333, indicating effectiveness with some variability. City of Malabon University shows high agreement among administrative personnel and security officers with means of 3.7778 and 3.6667 respectively, both indicating very effective engagement. Students gave a strong mean of 3.4815, suggesting effective to very effective feedback engagement. However, teaching/non-teaching personnel rated it significantly lower at 2.8889, indicating effectiveness but bordering on less effective, with very low variability. At Arellano University, administrative personnel gave one of the highest ratings at 3.8889, showing strong consensus that engagement is very effective. Students rated it similarly at 3.5556, while security officers gave a moderate 3.2500, reflecting effectiveness. Teaching/non-teaching staff again gave a lower mean of 2.8000, indicating a more neutral stance leaning toward less effective. Navotas Polytechnic College presented mixed responses. Administrative personnel rated engagement efforts as effective with a mean of 3.5000, but security officers had the lowest overall rating of 2.3333, clearly falling into the "Less Effective" range and showing high variability. Students and teaching/non-teaching personnel rated it at 3.2222 and 2.8016 respectively, indicating effectiveness but with marginal satisfaction, especially from faculty and staff. At Gov. Andres Pascual College, administrative personnel gave a moderate rating of 3.1333, while students rated engagement highly at 3.5417. Security officers also perceived engagement as very effective with a mean of 3.6667. Teaching/non-teaching staff shared the same mean as administrative personnel at 3.1333, suggesting generally effective but not outstanding results. Pamantasan ng Lungsod ng Valenzuela displayed consistently strong evaluations across all groups. Administrative personnel rated engagement at 3.5556, security officers at 3.6111, students at 3.6410, and teaching/non-teaching personnel at 3.5556. All values fall in the "Very Effective" category, with low standard deviations reflecting strong agreement. At St. Louis University, all groups assessed engagement as effective. Administrative personnel gave a mean of 3.4444, security officers 3.2500, students 3.3333, and teaching/non-teaching personnel 3.4000, all within a narrow and consistent range, indicating a moderate but positive evaluation of engagement efforts.

The data show that administrative personnel and students consistently rate security officers' engagement with campus community feedback as effective to very effective, often with high agreement and low variability. Security officers' self-evaluations vary more widely, with some institutions reporting high means and others, such as Navotas Polytechnic College, showing significantly lower scores. Teaching and non-teaching personnel displayed the widest range of responses, with several institutions rating engagement lower, suggesting room for improvement in how feedback mechanisms are experienced by faculty and staff. Overall, the results indicate that engagement with campus feedback is generally perceived as effective, but not uniformly so across all roles and institutions.

3.10. Respondents' Evaluation of Security Officers' Collaboration with Other Departments

The evaluation of security officers' collaboration with other departments across the CAMANAVA universities reveals generally positive ratings, with most respondents perceiving interdepartmental coordination as effective or very effective. At the University of Caloocan City, administrative personnel gave the highest rating with a mean of 3.8000, indicating a strong perception of very effective collaboration. Security officers followed with a mean of 3.4667, while students rated it at 3.3095 and teaching/non-teaching personnel at 3.2778, all suggesting effective collaboration with slight variability. La Consolacion College reflected strong collaboration across all groups. Administrative personnel

reported a mean of 3.7500, while security officers had a mean of 3.6667. Students rated collaboration at 3.5750, and teaching/non-teaching staff at 3.4762, all falling within the "Very Effective" category, with low standard deviations indicating strong agreement within each group. City of Malabon University showed particularly high scores from security officers with a mean of 3.8889, indicating very effective collaboration, while administrative personnel followed closely with 3.6667. Students rated it effectively at 3.5000, while teaching/non-teaching personnel provided the lowest rating across this institution at 2.7222, suggesting only moderate agreement with collaboration efforts, nearing neutrality. At Arellano University, administrative personnel gave one of the highest overall ratings with a mean of 3.8889. Students also rated collaboration highly at 3.6111. Security officers gave a lower rating of 3.0833, suggesting effective but less consistent collaboration, and teaching/non-teaching personnel rated it at 2.8000, indicating lower satisfaction with interdepartmental coordination. Navotas Polytechnic College recorded very effective ratings from administrative personnel at 3.6667. Students followed with a mean of 3.3333, while security officers rated collaboration at 3.1667, and teaching/non-teaching personnel at 2.7619. These ratings suggest that although collaboration is generally seen as effective, faculty and staff were less convinced. At Gov. Andres Pascual College, security officers rated collaboration highly at 3.6667, followed by students at 3.4583. Administrative personnel gave a more moderate rating of 3.0667, and teaching/non-teaching staff rated collaboration at 3.0000, suggesting neutrality and greater variability in experiences across roles. Pamantasan ng Lungsod ng Valenzuela demonstrated strong alignment across all groups. Administrative personnel gave a mean of 3.4444, security officers rated it at 3.5556, students at 3.6154, and teaching/non-teaching personnel at 3.6191. All groups fell within the "Very Effective" category, with low standard deviations indicating a strong consensus on positive collaboration practices. At St. Louis University, administrative personnel gave a mean of 3.5556, suggesting very effective collaboration. Security officers rated collaboration at 3.3333, students at 3.3017, and teaching/non-teaching personnel at 3.4667, all falling within the effective range.

Administrative personnel and students across institutions generally rated the collaboration of security officers with other departments as effective to very effective. Security officers and teaching/non-teaching staff showed more variability in their assessments, with lower scores observed in some institutions such as Navotas Polytechnic College and Arellano University. Despite these differences, the overall mean scores indicate a consistent perception of cross-departmental collaboration as a positive element of campus security operations.

3.11. Respondents' Assessment of Security Officers' Efforts in Blind Spot Reduction

The evaluation of security officers' efforts in reducing campus blind spots across the CAMANAVA educational institutions shows consistently positive ratings, with most groups assessing these efforts as either effective or very effective. At the University of Caloocan City, administrative personnel gave the highest possible mean of 3.8000, indicating very effective blind spot reduction. Security officers rated the efforts at 3.5333, students at 3.3571, and teaching/non-teaching staff at 3.5000. All scores fall within the effective to very effective range, with low standard deviations reflecting consistent feedback across groups. La Consolacion College reflected similarly strong perceptions. Security officers gave the highest mean score at 3.8889, followed by students at 3.6250, teaching/non-teaching personnel at 3.6191, and administrative personnel at 3.5833—all falling within the "Very Effective" category with minimal variation in responses. City of Malabon University also demonstrated high scores, with administrative personnel rating efforts at 3.6667 and security officers matching La Consolacion's high of 3.8889. Students rated the efforts at 3.5316, indicating strong agreement. However, teaching/non-teaching staff gave a noticeably lower score of 2.9444, suggesting a perception of moderate effectiveness within that group. At Arellano University, students rated blind spot reduction efforts highest at 3.7037, while administrative personnel followed with 3.5556. Security officers provided a lower rating of 3.0833, and teaching/non-teaching personnel gave the lowest rating in this institution at 2.7333. These figures still fall within the effective range but reveal notable variation among different campus roles. Navotas Polytechnic College showed strong ratings from administrative personnel with a mean of 3.6111, and students also rated the efforts favorably at 3.4222. However, security officers provided a neutral mean score of 3.0000, and teaching/non-teaching personnel rated efforts lower at 2.7143, indicating more mixed perceptions of effectiveness. Gov. Andres Pascual College presented a more moderate picture. Administrative personnel rated efforts at 3.0000, students at 3.4375, and teaching/non-teaching staff at 3.0667, indicating general effectiveness. Security officers stood out with a high score of 3.6667, suggesting strong agreement within that group regarding their own role in addressing blind spots. Pamantasan ng Lungsod ng Valenzuela demonstrated one of the most consistent high ratings across all roles. Students gave the highest mean at 3.7436, followed by security officers at 3.7222, teaching/non-teaching staff at 3.6191, and administrative personnel at 3.4444. These values suggest that all groups view the efforts to reduce blind spots as very effective, supported by low variability. St. Louis University reflected more uniform responses across groups, with administrative personnel scoring 3.5556, and security officers, students, and teaching/non-teaching personnel each scoring 3.3333. These indicate effective efforts with little variability between perceptions among different roles.

The assessment reveals a general consensus that security officers are actively and effectively working to reduce campus blind spots. The highest ratings consistently come from administrative personnel, students, and security officers themselves, while teaching and non-teaching personnel tend to rate efforts slightly lower in several institutions. Despite some variation, particularly among faculty/staff, the majority of respondents across institutions view blind spot reduction efforts as effective, with several institutions reaching the "Very Effective" threshold.

3.12. Respondents' Assessment of Security Officers' Enforcement of Entry Point Accessibility

The evaluation of security officers' enforcement of entry point accessibility across CAMANAVA institutions shows a generally positive perception, with most respondent groups rating the enforcement efforts as effective to very effective. At the University of Caloocan City, both administrative personnel and security officers/guards gave a perfect rating of 3.9000, indicating very effective enforcement, with students following closely at 3.6667 and teaching/non-teaching personnel slightly lower at 3.2500, still within the effective range. At La Consolacion College, administrative personnel rated enforcement at 3.6667, security officers at 3.2778, and students at 3.4479, all indicating effectiveness. Teaching/non-teaching personnel rated efforts lower at 2.7619, which, although still effective, leans closer to a neutral perception. City of Malabon University received one of the highest evaluations, with administrative personnel giving a perfect 4.0000 and security officers closely behind at 3.8889. Students rated it effectively at 3.5000, while teaching/non-teaching staff gave a more moderate score of 3.0000. Arellano University showed more mixed perceptions, with administrative personnel rating enforcement at 3.2222 and security officers slightly lower at 3.0417. Students gave a mean of 3.2963, while teaching/non-teaching personnel provided the highest group score at 3.4000, reflecting moderate to effective enforcement. Navotas Polytechnic College had administrative personnel rating enforcement at a high 3.8333, while security officers rated it at 2.9167, suggesting more critical self-assessment or awareness of operational gaps. Students gave a mean of 3.3778 and teaching/non-teaching personnel 3.1095, both within the effective category but with some inconsistency in perception. Gov. Andres Pascual College showed consistent ratings across all roles. Administrative personnel scored 3.6333, security officers 3.3750, students 3.6146, and teaching/non-teaching staff 3.1333—all indicating effectiveness with moderate variation in agreement. Pamantasan ng Lungsod ng Valenzuela displayed strong ratings across most groups. Administrative personnel scored 3.7222, security officers 3.8333, and students 3.7949, indicating very effective enforcement. Teaching/non-teaching personnel gave a lower but still positive rating of 3.3095. At St. Louis University, administrative personnel provided a mean of 3.5000, security officers 3.1667, students 3.5409, and teaching/non-teaching personnel 3.6333. These results suggest general agreement on the effectiveness of entry point enforcement, with teaching staff showing particular confidence in its implementation. The data indicates that security officers' enforcement of entry point accessibility is perceived as **effective to very effective** across all institutions. Administrative personnel and students consistently rated these efforts higher, reflecting strong confidence in front-line security enforcement. Security officers' self-evaluations showed more variation, particularly in institutions like Navotas Polytechnic College and Arellano University. Teaching and non-teaching staff, while generally agreeing, tended to offer more moderate scores in some cases. Nonetheless, the consistent presence of ratings above 3.00 across all categories affirms the perceived success of access control implementation in ensuring campus safety.

3.13. Respondents' Assessment of Security Officers' Enforcement of Entry Point Accessibility

The assessment of security officers' enforcement of entry point accessibility across various CAMANAVA universities reveals consistently positive evaluations across all respondent categories, with most ratings falling within the "Effective" to "Very Effective" range. At the University of Caloocan City, administrative personnel gave a high mean score of 3.8000, while security officers/guards followed with 3.4000. Students and teaching/non-teaching personnel reported mean scores of 3.4524 and 3.5000 respectively, indicating consistent agreement on effective enforcement with minimal variability. La Consolacion College showed a similarly positive pattern. Administrative personnel rated efforts at 3.5000, and security officers gave one of the highest scores at 3.8889. Students followed closely with a strong rating of 3.5986, while teaching/non-teaching personnel rated enforcement at 3.5238. These figures reflect a strong consensus on the effectiveness of access control, particularly from frontline roles. City of Malabon University stood out with perfect mean scores of 4.0000 from both administrative personnel and security officers/guards, suggesting a unanimous perception of very effective enforcement. Students rated it at 3.5185 and teaching/non-teaching staff at 3.0000—still within the effective range, though the latter group reflected a slightly more neutral perspective. At Arellano University, administrative personnel reported a mean of 3.6667, while students rated it at 3.6296, both indicating strong agreement. However, security officers rated it at a lower 3.0000, and teaching/non-teaching staff scored 2.9333, pointing to a more moderate level of satisfaction among these groups. Navotas Polytechnic College reflected high agreement from administrative personnel with a mean of 3.7778. Students followed at 3.4000, while security officers and teaching/non-teaching staff both provided lower evaluations at 3.0000 and 2.8571, respectively, suggesting a gap in perception between administrative and faculty/staff roles. Gov. Andres Pascual College showed some of the most varied responses. Security officers gave a high mean of 3.8333, while administrative personnel rated it moderately at

3.0000. Students gave a strong 3.5417, indicating confidence in enforcement, while teaching/non-teaching staff rated it at 3.0667, reflecting mild variability in perception. Pamantasan ng Lungsod ng Valenzuela received strong ratings from both administrative personnel and security officers, each with a mean of 3.6667. Students gave a similar score of 3.5385, while teaching/non-teaching staff reported 3.3810, indicating general agreement across all roles with slight variations. St. Louis University followed the trend of moderate agreement, with administrative personnel rating entry enforcement at 3.6667 and security officers at 3.2500. Students provided a mean of 3.3704, while teaching/non-teaching staff reported 3.2667, all within the effective range.

The findings indicate a generally strong and consistent perception of effective enforcement of entry point accessibility by security officers across institutions. Administrative personnel and security officers often reported higher confidence in enforcement efforts, while students and teaching/non-teaching personnel demonstrated agreement with slightly more variability. The convergence of these evaluations highlights a collective recognition of the importance of entry regulation as a critical component of campus security protocols.

3.14. Respondents' Assessment of Security Officers' Enforcement of Visitor Access Monitoring

The assessment of security officers' enforcement of visitor access monitoring across colleges and universities in the CAMANAVA area reveals generally positive perceptions across all respondent groups, with some variations between roles and institutions. At the University of Caloocan City, administrative personnel provided a high mean score of 3.7333, suggesting effective enforcement. Students and teaching/non-teaching personnel followed closely with mean scores of 3.4176 and 3.4444, respectively, while security officers/guards rated their efforts more modestly at 3.2667, all within the "effective" range. At La Consolacion College, ratings were relatively high and consistent. Both administrative personnel and security officers gave a mean of 3.6667, indicating strong agreement with the effectiveness of visitor access monitoring. Students rated it at 3.5208 and teaching/non-teaching staff at 3.5714, all pointing to very effective enforcement with low variability. City of Malabon University stood out with a perfect mean score of 4.0000 from security officers/guards, reflecting very strong self-assessment. Administrative personnel also gave a high rating of 3.6667, while students followed at 3.5741. Teaching/non-teaching staff were slightly more reserved with a neutral rating of 3.0000, indicating a divergence in perception across roles. At Arellano University, students gave the highest mean score of 3.6296, followed by administrative personnel at 3.5556. Security officers rated their enforcement efforts at 3.1667, while teaching/non-teaching staff gave the lowest score among the group at 2.9333, suggesting less satisfaction from faculty roles. Navotas Polytechnic College showed mixed results. Administrative personnel rated efforts at 3.5556, and students at 3.4889, indicating effective monitoring. However, security officers gave a lower mean of 2.8333, suggesting moderate concerns from within the security team. Teaching/non-teaching staff also provided a lower score at 3.0952, reflecting slightly less confidence in enforcement. Gov. Andres Pascual College presented a stark contrast between groups. Administrative personnel rated enforcement lowest among all institutions at 2.6667, suggesting dissatisfaction or perceived ineffectiveness. In contrast, security officers gave a much higher score of 3.5833, while students and teaching/non-teaching staff provided middle-ground evaluations at 3.4583 and 3.0000, respectively. Pamantasan ng Lungsod ng Valenzuela reflected strong and consistent support for visitor monitoring efforts. Security officers gave one of the highest ratings at 3.7778, while students and teaching/non-teaching staff rated enforcement at 3.4872 and 3.6587, respectively. Administrative personnel were slightly more moderate at 3.3333, but still within the effective range. St. Louis University showed relatively even perceptions across all groups. Administrative personnel rated the enforcement at 3.5556, while security officers and teaching/non-teaching staff gave identical scores of 3.3333. Students rated slightly lower at 3.3519, though still suggesting overall agreement on effective enforcement.

The evaluation results indicate that visitor access monitoring by security officers is generally perceived as effective across all institutions. Administrative personnel and students consistently rated efforts positively, while security officers often gave higher self-assessments. Teaching/non-teaching staff showed more variation, with some institutions reflecting slightly more neutral or reserved responses. Despite this, the majority of ratings fell well within the effective range, reinforcing the view that visitor access is being properly monitored as part of campus security protocols.

3.15. Respondents' Assessment of Security Officers' Enforcement of Natural Barrier Integration

The evaluation of security officers' enforcement of natural barrier integration across the participating CAMANAVA colleges and universities reveals that respondents generally perceive the implementation of these measures as effective, with some institutions and roles reporting very effective practices. At the University of Caloocan City, administrative personnel gave a high rating of 3.8000, indicating a very effective perception of enforcement. Security officers/guards followed with a score of 3.4667, while students rated the efforts at 3.4048 and teaching/non-teaching staff at 3.5000— all suggesting effective enforcement with minimal variation. La Consolacion College reflected similarly consistent results, with administrative personnel rating the enforcement at 3.6667 and security officers slightly lower at 3.5556. Students and teaching/non-teaching staff followed closely with mean scores of 3.5000 and 3.4762, maintaining an

effective perception across all groups. City of Malabon University received particularly strong scores from security officers, with a high mean of 3.8889—indicating very effective enforcement. Administrative personnel rated it at 3.5556, students at 3.5185, while teaching/non-teaching staff gave a more neutral score of 3.0000, still falling within the effective range. Arellano University had students rating enforcement at 3.6482 and administrative personnel at 3.5556, both reflecting strong agreement. Meanwhile, security officers and teaching/non-teaching staff rated the enforcement at 3.0000, indicating moderate but still effective perceptions. At Navotas Polytechnic College, administrative personnel gave a favorable rating of 3.6667, while security officers provided one of the lowest scores at 2.8333, indicating a perception closer to moderate effectiveness. Students and teaching/non-teaching staff gave scores of 3.3778 and 2.9048, respectively, also pointing to some variability in perceptions, especially among non-security roles. Gov. Andres Pascual College revealed mixed results, with administrative personnel scoring enforcement at 3.1333 and teaching/non-teaching staff at 3.2667. Meanwhile, security officers gave a strong score of 3.5833, and students rated it at 3.5208, suggesting more favorable perceptions from frontline staff and students. Pamantasan ng Lungsod ng Valenzuela received high ratings across all roles. Administrative personnel scored enforcement at 3.6667 and security officers slightly higher at 3.7778. Students rated the integration of natural barriers at 3.5385, and teaching/non-teaching personnel gave a similar evaluation of 3.4762—all indicating effective to very effective enforcement. At St. Louis University, responses were also consistent: administrative personnel rated it at 3.4444, security officers at 3.2500, students at 3.3519, and teaching/non-teaching staff at 3.5333, all within the effective range.

The enforcement of natural barrier integration across institutions is widely viewed as effective, with occasional distinctions between administrative, security, and academic staff perceptions. While some variability exists—particularly in institutions like Navotas Polytechnic College and Gov. Andres Pascual College—most responses fall within the "Effective" to "Very Effective" range. This suggests that natural barriers, as a passive security measure, are being integrated successfully across most campuses, with room for refinement in specific areas or respondent groups.

3.16. Respondents' Evaluation of Security Officers' Enforcement of Access Control Signage

The evaluation of security officers' enforcement of access control signage across educational institutions in the CAMANAVA area reveals generally positive perceptions among various respondent groups—administrative personnel, security officers/guards, students, and teaching/non-teaching personnel. At the University of Caloocan City, administrative personnel rated enforcement efforts very highly with a perfect mean score of 3.8000, while students provided a strong rating of 3.4048. Security officers/guards and teaching/non-teaching staff both rated the enforcement at 3.4667 and 3.5000, respectively, suggesting consistent effectiveness across groups. At La Consolacion College, administrative personnel and security officers/guards scored enforcement at 3.6667 and 3.5556, respectively, while students and teaching/non-teaching staff rated it at 3.5000 and 3.4762, showing effective enforcement across all roles with minor variability. City of Malabon University presented strong ratings from security officers/guards at 3.8889, with supporting evaluations from administrative personnel (3.5556), students (3.6111), and teaching/non-teaching staff (3.5185), indicating widespread agreement with signage enforcement. At Arellano University, students showed strong agreement with a mean of 3.6482, while administrative personnel and teaching/non-teaching staff rated it at 3.5556 and 3.0000, respectively. Security officers/guards gave a lower but still effective score of 3.0000, reflecting slightly more varied perceptions. Navotas Polytechnic College displayed moderate to effective evaluations with administrative personnel scoring 3.6667, students 3.3778, and security officers and teaching staff scoring 2.8333 and 2.9048, respectively—suggesting some gaps in perceived enforcement among support personnel. Gov. Andres Pascual College showed a lower rating from administrative personnel at 3.1333, but higher scores from security officers/guards (3.5833), students (3.5208), and teaching/non-teaching staff (3.2667), indicating mixed but generally favorable perceptions. At Pamantasan ng Lungsod ng Valenzuela, all groups gave favorable ratings, with scores ranging from 3.4762 to 3.7778, suggesting consistently effective enforcement of access control signage. Finally, St. Louis University presented uniform agreement, with ratings of 3.4444 from administrative personnel, 3.2500 from security officers/guards, 3.3519 from students, and 3.5333 from teaching/non-teaching staff.

The assessment shows strong support for the effectiveness of access control signage enforcement across most institutions. While slight variability exists—particularly among teaching/non-teaching personnel—the general trend indicates positive perception and consistent implementation of access control measures.

3.17. Respondents' Evaluation of Security Officers' Enforcement of Breach Response

The evaluation of security officers' enforcement of breach response across the participating colleges and universities in CAMANAVA reveals generally favorable perceptions, with varying degrees of effectiveness observed among different respondent groups. At the University of Caloocan City, administrative personnel provided a strong mean rating of 3.8000, suggesting very effective enforcement. Security officers/guards followed with a mean of 3.4000, and students and teaching/non-teaching staff rated enforcement efforts at 3.4048 and 3.5000, respectively, all falling within the

"effective" to "very effective" range. At La Consolacion College, all groups rated breach response positively. Administrative personnel gave a mean of 3.6667, while security officers/guards rated it slightly higher at 3.7778. Students and teaching/non-teaching staff showed strong agreement with means of 3.5417 and 3.4762, respectively, indicating consistent satisfaction with the breach response enforcement. Meanwhile, at City of Malabon University, security officers/guards provided the highest possible rating of 3.8889, while administrative personnel and students followed with 3.6667 and 3.6111, respectively. However, teaching/non-teaching personnel gave a noticeably lower mean of 2.8889, suggesting only moderate agreement. In Arellano University, ratings were more mixed. Administrative personnel rated enforcement at 3.4444 and students gave a higher score of 3.6416, both showing effective to very effective responses. Security officers/guards gave a lower score of 3.0833, and teaching/non-teaching staff gave a neutral rating of 3.0000. At Navotas Polytechnic College, administrative personnel again rated breach response highly at 3.6667, while security officers/guards gave a much lower score of 2.6667, suggesting less satisfaction. Students and teaching/non-teaching staff had moderate scores of 3.3333 and 2.9048, respectively, indicating varied levels of effectiveness. Gov. Andres Pascual College presented similar disparities. Administrative personnel rated breach response at 3.2000, while security officers/guards rated it more favorably at 3.5000. Students gave a mean score of 3.5208, while teaching/non-teaching staff had a lower score of 2.9333. At Pamantasan ng Lungsod ng Valenzuela, all groups showed a relatively consistent view of effectiveness. Administrative personnel gave a mean of 3.3333, security officers/guards rated it at 3.6111, students at 3.4872, and teaching/non-teaching personnel at 3.4762. St. Louis University demonstrated strong agreement across the board, with administrative personnel giving a mean of 3.6667, security officers/guards 3.4167, students 3.3148, and teaching/non-teaching staff 3.6000—all indicating effective to very effective enforcement of breach response.

While perceptions of breach response enforcement are generally positive across institutions, there is a noticeable degree of variation among respondent groups. Administrative personnel and security officers/guards often rate enforcement efforts more favorably, while teaching and non-teaching staff occasionally express more neutral or moderate levels of agreement. Nonetheless, the overall trend suggests that security officers are perceived as generally effective in handling breach incidents across the campuses surveyed.

3.18. Respondents' Assessment of Security Officers' Reinforcement of Territorial Ownership and Identity through Campus Boundary Clarity

Across the surveyed educational institutions in CAMANAVA, the assessment of security officers' reinforcement of territorial ownership and identity—specifically through the clarity of campus boundaries—revealed generally favorable perceptions, though variations were observed among respondent groups. At the University of Caloocan City, administrative personnel expressed a high level of agreement with a mean score of 3.8000. Security officers/guards followed with 3.4000, while students and teaching/non-teaching staff rated the reinforcement at 3.2180 and 3.4444, respectively, indicating positive but varied perceptions. In La Consolacion College, all groups showed consistent agreement, with administrative personnel rating the efforts at 3.6667, security officers/guards at 3.5556, students at 3.4375, and teaching/non-teaching staff at 3.5238. At City of Malabon University, both administrative personnel and security officers/guards gave the highest rating of 3.8889, suggesting very effective boundary clarity. Students rated it slightly lower at 3.4444, and teaching/non-teaching staff at 3.1667, reflecting effective yet slightly less favorable perceptions among the latter group. In Arellano University, student respondents provided a high mean of 3.6296, while administrative personnel followed at 3.4444. However, security officers/guards rated the reinforcement lower at 3.0000, and teaching/non-teaching staff even lower at 2.8000, suggesting less satisfaction in those groups. Navotas Polytechnic College revealed more variability. Administrative personnel rated the reinforcement highly at 3.6667, while security officers/guards gave a significantly lower score of 2.5000. Students and teaching/non-teaching staff provided ratings of 3.4000 and 2.9524, respectively, showing a mix of effective and less effective perceptions. In Gov. Andres Pascual College, security officers/guards gave the highest score of 3.8333. Students and teaching/non-teaching staff followed with 3.4583 and 3.4000, while administrative personnel provided a moderate score of 3.2667. Pamantasan ng Lungsod ng Valenzuela showed consistent agreement across all groups. Administrative personnel rated reinforcement at 3.6667, security officers/guards at 3.8333, students at 3.5385, and teaching/non-teaching staff at 3.5714, indicating strong alignment on boundary clarity effectiveness. Lastly, St. Louis University showed relatively lower administrative ratings at 3.0000, while security officers/guards rated 3.3333, students 3.2593, and teaching/non-teaching personnel 3.6000, reflecting a generally effective perception with some variation.

The data suggests that efforts to reinforce territorial ownership and identity through campus boundary clarity are seen as effective by most groups, with administrative personnel and security officers/guards often providing the highest ratings. Some institutions, however, showed notable disparities, especially in the perceptions of teaching and non-teaching personnel.

3.19. Respondents' Assessment of Security Officers' Reinforcement of Territorial Ownership and Identity through Landscape Utilization

The assessment of security officers' reinforcement of territorial ownership and identity through the strategic use of landscape design shows a generally positive perception across institutions, with some differences among the respondent categories. At the University of Caloocan City, administrative personnel rated the efforts highly at 3.7333, followed by security officers/guards at 3.5333, students at 3.3187, and teaching/non-teaching staff at 3.5000. These ratings indicate overall effectiveness, with slight variation across roles. La Consolacion College also reflected favorable views, with security officers/guards giving the highest score of 3.7778. Administrative personnel followed with 3.5833, students with 3.5000, and teaching/non-teaching personnel with 3.6191, showing consistent agreement across all groups. City of Malabon University presented strong ratings as well, with administrative personnel at 3.6667 and security officers/guards at 3.8889. Students rated the reinforcement at 3.4630, while teaching/non-teaching staff provided a more modest evaluation of 3.0556, suggesting less certainty in perceived impact among the latter group. Arellano University had the highest administrative score across all schools at 4.0000, indicating very effective perception, whereas security officers/guards gave a significantly lower rating of 2.8333. Students responded positively with 3.5926, while teaching/non-teaching staff showed more neutral feedback at 2.9333. Navotas Polytechnic College demonstrated more mixed perceptions, with administrative personnel rating at 3.5556 and students at 3.3778, while security officers/guards and teaching/non-teaching staff rated lower at 2.8333 and 2.9524, respectively. In Gov. Andres Pascual College, ratings also varied: security officers/guards gave a high score of 3.6667, students followed with 3.4375, while administrative and teaching/non-teaching personnel rated lower at 3.0667 and 2.9333, respectively. Pamantasan ng Lungsod ng Valenzuela showed generally strong perceptions of effectiveness, with students and teaching/non-teaching staff scoring 3.5278 and 3.5238, respectively. Security officers/guards gave a high 3.6667, while administrative personnel provided a slightly lower but still positive score of 3.1111. At St. Louis University, administrative and security personnel had closely aligned views at 3.2222 and 3.2500, respectively, while students and teaching/non-teaching staff provided slightly higher scores of 3.3889 and 3.4000.

The reinforcement of territorial ownership and identity through landscape utilization is largely viewed as effective across CAMANAVA institutions. Administrative personnel and security officers/guards often lead in giving higher scores, though some disparities appear, particularly among teaching/non-teaching personnel. These differences may reflect varying levels of awareness or involvement in campus environmental planning.

3.20. Respondents' Assessment of Security Officers' Reinforcement of Territorial Ownership and Identity through Ownership Promotion Policies

The evaluation of security officers' reinforcement of territorial ownership and identity through ownership promotion policies reveals varied perceptions across educational institutions and respondent groups. At the University of Caloocan City, administrative personnel rated the enforcement efforts at 3.7333, indicating a very effective implementation, while security officers/guards followed with a rating of 3.4000. Students and teaching/non-teaching staff rated it at 3.2619 and 3.5556 respectively, showing generally positive feedback with minor variations. La Consolacion College also reflected strong positive responses with administrative personnel at 3.6667, security officers/guards at 3.8889, students at 3.4375, and teaching/non-teaching staff at 3.6508—all indicating effective or very effective perceptions. In contrast, City of Malabon University showed a stark divergence, where administrative personnel rated the reinforcement at 3.7778, while security officers/guards and students gave significantly lower scores of 2.0813 and 2.0321, respectively, suggesting perceived ineffectiveness in implementation. Teaching/non-teaching staff rated it at 2.1561, reinforcing the general dissatisfaction among non-administrative groups. At Arellano University, administrative personnel maintained a high rating of 3.7778, students mirrored this with 3.6667, while security officers/guards and teaching/non-teaching staff rated it lower at 2.9167 and 3.0000, reflecting more moderate evaluations. Navotas Polytechnic College followed a similar pattern of variability, with administrative personnel giving a strong 3.6667 rating, students providing 3.4222, and teaching/non-teaching staff giving 2.9524. However, security officers/guards rated it lower at 2.6667, suggesting a disconnect in perceived policy enforcement. Gov. Andres Pascual College presented a reverse in ratings, with security officers/guards scoring highest at 3.8333, while administrative personnel gave 3.2667. Students and teaching/non-teaching staff rated it at 3.4792 and 2.8667, respectively, indicating moderate perceptions. Pamantasan ng Lungsod ng Valenzuela yielded consistently high ratings across all groups, with administrative personnel scoring 3.5556, security officers/guards at 3.8333, students at 3.4872, and teaching/non-teaching staff at 3.6191, all reflecting strong effectiveness in ownership promotion initiatives. Lastly, St. Louis University showed moderate and fairly consistent scores, with administrative personnel at 3.2222, security officers/guards at 3.3333, students at 3.3519, and teaching/non-teaching staff at 3.2667.

The reinforcement of territorial ownership and identity through ownership promotion policies is generally perceived as effective, particularly by administrative personnel and security officers/guards. However, perceptions among

students and teaching/non-teaching staff are more variable, with some institutions showing significant disparities, pointing to possible gaps in communication or implementation across stakeholder groups.

3.21. Respondents' Assessment of Security Officers' Reinforcement of Territorial Ownership and Identity through Monitoring Technology Integration

The assessment of security officers' reinforcement of territorial ownership and identity through monitoring technology integration across various educational institutions in CAMANAVA reveals a generally favorable perception among respondents, with minor variability between stakeholder groups. At the University of Caloocan City, administrative personnel provided a very effective rating of 3.8000, while security officers/guards followed with 3.5333. Students and teaching/non-teaching staff also reflected agreement, scoring 3.3810 and 3.5000 respectively, all within the effective range. La Consolacion College similarly showed positive results across all categories, with administrative personnel rating 3.5833, security officers/guards 3.7778 (very effective), students 3.5000, and teaching/non-teaching personnel 3.4762—demonstrating strong consistency in favorable perceptions. City of Malabon University recorded high ratings from both administrative personnel and security officers/guards, each at 3.7778, indicating very effective performance. Students followed with 3.5370, while teaching/non-teaching staff rated slightly lower at 3.0556, indicating effective implementation with minor variation. At Arellano University, administrative personnel gave a rating of 3.6667 and students 3.5741, both within the very effective range. However, security officers/guards and teaching/non-teaching staff both gave ratings of 3.0000, reflecting a more moderate view of implementation effectiveness. Navotas Polytechnic College showed a wider spread in ratings, with administrative personnel scoring 3.5000 and security officers/guards 3.3333. Students gave a score of 3.3778, while teaching/non-teaching staff offered a slightly lower 2.8571, indicating variability in perceptions. At Gov. Andres Pascual College, administrative personnel rated the reinforcement at 3.4000, while security officers/guards gave a higher rating of 3.6667. Students and teaching/non-teaching staff scored it at 3.4583 and 3.1333 respectively, both within the effective category, though with noticeable differences in enthusiasm. Pamantasan ng Lungsod ng Valenzuela received overall strong ratings across the board. Administrative personnel rated the reinforcement at 3.2222, security officers/guards gave the highest group rating at 3.8333, students scored 3.5641, and teaching/non-teaching staff 3.4762—highlighting a largely positive consensus with high consistency. At St. Louis University, administrative personnel gave a lower rating of 3.1111, and security officers/guards rated 3.2500. Students scored 3.4259, while teaching/non-teaching personnel gave 3.3333, showing effective but more moderate perceptions across all groups.

Respondents across institutions generally agreed that the integration of monitoring technology effectively reinforces territorial ownership and identity. While most ratings fall within the "effective" and "very effective" categories, some discrepancies are evident between roles, particularly with teaching/non-teaching personnel offering slightly more conservative evaluations in certain cases. Nonetheless, the data reflects a positive institutional trend toward effective use of monitoring technology for campus security enhancement.

3.22. Respondents' Assessment of Security Officers' Reinforcement of Territorial Ownership and Identity through Community Engagement

The evaluation of security officers' reinforcement of territorial ownership and identity through community engagement across educational institutions in CAMANAVA reflects a generally positive trend with some variability among respondent groups. At the University of Caloocan City, administrative personnel rated the reinforcement as very effective with a mean of 3.8000, while security officers/guards gave it 3.6000, also indicating strong agreement. Students rated it at 3.3571 and teaching/non-teaching personnel at 3.4444, both falling within the effective range. La Consolacion College showed consistent positive agreement across all groups. Administrative personnel rated the practice at 3.5833, security officers/guards at 3.7778 (very effective), students at 3.5000, and teaching/non-teaching personnel at 3.6191. Similarly, City of Malabon University saw both administrative personnel and security officers/guards rating reinforcement very effective at 3.7778. Students gave a mean of 3.5370, while teaching/non-teaching staff rated it at 3.1111, indicating general agreement with some variation. At Arellano University, administrative personnel rated the initiative at 3.6667, students at 3.6111—both suggesting strong effectiveness. However, security officers/guards provided a notably lower score of 2.9167, and teaching/non-teaching staff rated it 3.0000, pointing to mixed perceptions. Navotas Polytechnic College received very effective ratings from administrative personnel (3.7222), but lower scores from security officers/guards (3.0000), students (3.5111), and especially teaching/non-teaching personnel (2.8095), revealing significant perception gaps. Gov. Andres Pascual College presented an interesting contrast: administrative personnel rated community engagement at 3.2000, while security officers/guards gave a high rating of 3.5833. Students rated it at 3.5000, and teaching/non-teaching staff at 2.9333, reflecting varied levels of agreement. Pamantasan ng Lungsod ng Valenzuela recorded strong overall support, with ratings of 3.5556 from administrative personnel, 3.8333 from security officers/guards, 3.5897 from students, and 3.6667 from teaching/non-teaching staff—all indicating a very effective perception of community engagement

strategies. At St. Louis University, perceptions were more moderate. Administrative personnel rated the approach at 3.1111, security officers/guards at 3.2500, students at 3.4074, and teaching/non-teaching staff at 3.4000, reflecting consistent but slightly lower agreement.

While most institutions reported effective or very effective reinforcement of territorial ownership and identity through community engagement, the degree of perceived success varies by stakeholder group. Administrative personnel and security officers/guards generally expressed strong support, whereas teaching/non-teaching staff tended to offer more conservative ratings in several cases, indicating areas where engagement efforts might be more effectively aligned across all members of the academic community.

Table 1 Problems in Campus Environment Maintenance and Management Affecting Security Officer Effectiveness in Campus Infrastructure Maintenance

School/ University		Admin. Personnel	Security Officer/ Guard	Student	Teaching/ Non-Teaching
University of Caloocan City	Mean Std. Dev	3.8000 0.00000	3.6667 0.05803	3.3571 0.34249	3.1111 0.14473
La Consolacion College	Mean Std. Dev	3.6667 0.04466	3.5556 0.00000	3.1903 0.16881	3.1905 0.21601
City of Malabon University	Mean Std. Dev	3.6667 0.00000	3.7778 0.33333	3.3148 0.16030	3.0000 0.00000
Arellano University	Mean Std. Dev	3.3333 0.00000	3.0000 0.00000	3.1852 0.21723	2.5333 0.09593
Navotas Polytechnic College	Mean Std. Dev	3.7778 0.06244	2.8333 0.40825	3.1556 0.20814	2.8095 0.30792
Gov. Andres Pascual College	Mean Std. Dev	3.2000 0.09593	3.5833 0.04466	3.2500 0.12684	2.8000 0.40008
Pamantasan ng Lungsod ng Valenzuela	Mean Std. Dev	2.8889 0.11080	3.6667 0.00000	3.4872 0.08614	3.2381 0.15556
St. Louis University	Mean Std. Dev	3.0000 0.19245	3.5833 0.04466	3.3333 0.08859	3.0667 0.14473

Legend: 3.51 - 4.00 Very Effective; 2.51 - 3.50 Effective; 1. 51 - 2.50 Less Effective; 1.00 - 1.50 Not Effective

At the University of Caloocan City, administrative personnel rated the effectiveness as very effective at 3.8000, indicating strong agreement, while security officers/guards rated it as having a score of 3.6667. Students rated it at 3.3571, and teaching/non-teaching staff rated it at 3.1111, showing generally positive views with some variation. La Consolacion College saw administrative personnel rating the effectiveness as effective with a score of 3.6667, while security officers/guards rated it slightly lower at 3.5556. Students rated it at 3.1903, and teaching/non-teaching staff rated it at 3.1905, indicating consistent but slightly less positive agreement across groups. At City of Malabon University, both administrative personnel and security officers/guards rated the effectiveness highly, both scoring it as very effective at 3.6667 and 3.7778, respectively. Students rated it at 3.3148, while teaching/non-teaching staff rated it at 3.0000, showing some variability in perceptions but generally positive views. Arellano University had administrative personnel rating the effectiveness as effective with a score of 3.3333, while security officers/guards rated it lower at 3.0000, falling into the less effective range. Students rated it at 3.1852, and teaching/non-teaching staff rated it at 2.5333, indicating mixed but overall moderate perceptions with notable variability. Navotas Polytechnic College had administrative personnel rating the effectiveness as very effective with a score of 3.7778, while security officers/guards rated it significantly lower at 2.8333, falling into the effective range. Students rated it at 3.1556, and teaching/non-teaching staff rated it at 2.8095, showing significant variability in perceptions. Gov. Andres Pascual College saw administrative personnel rating the effectiveness as effective with a score of 3.2000, while security officers/guards rated it as very effective with a score of 3.5833. Students rated it at 3.2500, and teaching/non-teaching staff rated it at 2.8000, indicating moderate agreement with notable variation. Pamantasan ng Lungsod ng Valenzuela had administrative personnel rating the effectiveness as less effective with a score of 2.8889, while security officers/guards rated it much higher at 3.6667, falling into the Very Effective range. Students rated it at 3.4872, and teaching/non-teaching staff rated it at 3.2381, reflecting positive views with some consistency across groups. St. Louis University had administrative personnel rating the effectiveness as Effective with a score of 3.0000, while security officers/guards

rated it as Very Effective with a score of 3.5833. Students rated it at 3.3333, and teaching/non-teaching staff rated it at 3.0667, showing generally positive views with slight variations.

The effectiveness of reinforcement measures varies across the institutions assessed. While some institutions demonstrate strong agreement among administrative personnel and security officers/guards, others show discrepancies in their perceptions. The assessment highlights a mix of positive views and variability in effectiveness ratings among respondent groups and institutions.

The table presents problems in campus environment maintenance and management impacting security officer coordination across different institutions, as perceived by various respondent groups.

Table 2 Problems in Campus Environment Maintenance and Management Impacting Security Officer Coordination

School/ University		Admin. Personnel	Security Officer/ Guard	Student	Teaching/ Non-Teaching
University of Caloocan City	Mean Std. Dev	3.8000 0.00000	3.6000 0.00000	3.1978 0.11295	3.0556 0.00000
La Consolacion College	Mean Std. Dev	3.4167 0.04466	3.5556 0.33333	2.9792 0.13495	3.0000 0.16801
City of Malabon University	Mean Std. Dev	3.6667 0.00000	4.0000 0.00000	3.2092 0.06890	2.9444 0.04250
Arellano University	Mean Std. Dev	3.0000 0.00000	2.7500 0.00000	3.2102 0.14278	2.6000 0.05803
Navotas Polytechnic College	Mean Std. Dev	3.6111 0.01809	3.3333 0.40825	3.2222 0.08111	2.9524 0.17583
Gov. Andres Pascual College	Mean Std. Dev	2.8000 0.22485	3.2500 0.29346	3.1667 0.20527	3.0000 0.27400
Pamantasan ng Lungsod ng Valenzuela	Mean Std. Dev	3.2222 0.04250	3.7778 0.06244	3.4103 0.00565	2.9048 0.26417
St. Louis University	Mean Std. Dev	3.0000 0.19245	3.5833 0.04466	3.3333 0.08859	3.0667 0.14473

Legend: 3.51 - 4.00 Very Effective; 2.51 - 3.50 Effective; 1. 51 - 2.50 Less Effective; 1.00 - 1.50 Not Effective

At the University of Caloocan City, administrative personnel rated the impact as very effective at 3.8000, indicating strong agreement, while security officers/guards rated it as effective with a score of 3.6000. Students rated it at 3.1978, and teaching/non-teaching staff rated it at 3.0556, suggesting generally positive views with some variation. La Consolacion College saw administrative personnel rating the impact as effective with a score of 3.4167, while security officers/guards rated it slightly higher at 3.5556. Students rated it at 2.9792, and teaching/non-teaching staff rated it at 3.0000, indicating somewhat positive views but with some discrepancies. At City of Malabon University, both administrative personnel and security officers/guards rated the impact highly, both scoring it as very effective at 3.6667 and 4.0000, respectively. Students rated it at 3.2092, while teaching/non-teaching staff rated it at 2.9444, showing some variability in perceptions but generally positive views. Arellano University had administrative personnel rating the impact as effective with a score of 3.0000, while security officers/guards rated it slightly lower at 2.7500, falling into the less effective range. Students rated it at 3.2102, and teaching/non-teaching staff rated it at 2.6000, indicating mixed but generally moderate perceptions with notable variability. Navotas Polytechnic College had administrative personnel rating the impact as very effective with a score of 3.6111, while security officers/guards rated it lower at 3.3333, falling into the effective range. Students rated it at 3.2222, and teaching/non-teaching staff rated it at 2.9524, showing some variability in perceptions but generally positive views. At Gov. Andres Pascual College, administrative personnel rated the impact as effective with a score of 2.8000, while security officers/guards rated it slightly higher at 3.2500. Students rated it at 3.1667, and teaching/non-teaching staff rated it at 3.0000, indicating mixed but generally moderate perceptions with some variation. Pamantasan ng Lungsod ng Valenzuela had administrative personnel rating the impact as effective with a score of 3.2222, while security officers/guards rated it higher at 3.7778, falling into the very effective range. Students rated it at 3.4103, and teaching/non-teaching staff rated it at 2.9048, reflecting generally positive views with some discrepancies. St. Louis University had administrative personnel rating the impact as effective with a score

of 3.0000, while security officers/guards rated it as very effective with a score of 3.5833. Students rated it at 3.3333, and teaching/non-teaching staff rated it at 3.0667, indicating generally positive views with slight variations.

The assessment reveals varying levels of impact effectiveness across the surveyed institutions. While some institutions, like City of Malabon University and Pamantasan ng Lungsod ng Valenzuela, receive high ratings from both administrative personnel and security officers/guards, others, such as Arellano University and Gov. Andres Pascual College, show more mixed perceptions. Despite these variations, there's a general trend of positive views regarding impact effectiveness, particularly among administrative personnel and security officers/guards, with slight discrepancies among respondents'.

The data provides insight into how various problems in campus environment maintenance and management affect the effectiveness of security officers in handling maintenance issues. Respondent groups, including administrative personnel, security officers/guards, students, and teaching/non-teaching staff from different universities, have offered their assessments, revealing some consistent patterns and significant variation.

Table 3 Problems in Campus Environment Maintenance and Management Affecting Security Officer Effectiveness in Maintenance Issue Protocols

School/ University		Admin. Personnel	Security Officer/ Guard	Student	Teaching/ Non-Teaching
University of Caloocan City	Mean Std. Dev	3.8000 0.00000	3.0667 0.07480	3.0000 0.12252	2.9444 0.15005
La Consolacion College	Mean Std. Dev	3.5000 0.00000	3.4444 0.33333	3.0208 0.09040	2.8571 0.05142
City of Malabon University	Mean Std. Dev	3.6667 0.00000	4.0000 0.00000	3.1852 0.03710	2.7778 0.02860
Arellano University	Mean Std. Dev	2.8889 0.30457	2.7500 0.00000	3.1111 0.08729	2.2667 0.16682
Navotas Polytechnic College	Mean Std. Dev	3.6111 0.01809	2.5000 0.40825	3.0889 0.06485	2.4762 0.08090
Gov. Andres Pascual College	Mean Std. Dev	2.6000 0.23463	3.3333 0.28868	3.1250 0.05848	2.8667 0.19772
Pamantasan ng Lungsod ng Valenzuela	Mean Std. Dev	3.0556 0.00000	3.7778 0.06244	3.2051 0.13575	3.0476 0.02544
St. Louis University	Mean Std. Dev	2.8889 0.00000	3.4167 0.04466	3.1678 0.01805	3.2667 0.17354

Legend: 3.51 - 4.00 Very Effective; 2.51 - 3.50 Effective; 1. 51 - 2.50 Less Effective; 1.00 - 1.50 Not Effective

At the University of Caloocan City, administrative personnel rated the effectiveness at very effective with a score of 3.8000, while security officers/guards gave a rating of effective at 3.0667, students rated it at effective with a score of 3.0000, and teaching/non-teaching staff at effective with a score of 2.9444. Similarly, at La Consolacion College, administrative personnel rated it as Very Effective with a score of 3.5000, security officers/guards at effective with a score of 3.4444, students at Effective with a score of 3.0208, and teaching/non-teaching staff at Effective with a score of 2.8571. The City of Malabon University saw administrative personnel giving a rating of Very Effective with a score of 3.6667, security officers/guards as very effective with a score of 4.0000, students as effective with a score of 3.1852, and teaching/non-teaching staff as Effective with a score of 2.7778, respectively. Arellano University had administrative personnel rating effectiveness at less effective with a score of 2.8889, security officers/guards at less effective with a score of 2.7500, students at effective with a score of 3.1111, and teaching/non-teaching staff at less effective with a score of 2.2667. At Navotas Polytechnic College, administrative personnel rated effectiveness at very effective with a score of 3.6111, security officers/guards at less effective with a score of 2.5000, students at effective with a score of 3.0889, and teaching/non-teaching staff as less effective with a score of 2.4762. Gov. Andres Pascual College had administrative personnel giving a rating of less effective with a score of 2.6000, security officers/guards at effective with a score of 3.3333, students at effective with a score of 3.1250, and teaching/non-teaching staff at effective with a score of 2.8667. At Pamantasan ng Lungsod ng Valenzuela, administrative personnel rated effectiveness as effective with a score of 3.0556, security officers/guards as very effective with a score of 3.7778, students as effective with a score of 3.2051, and teaching/non-teaching staff as effective with a score of 3.0476. St. Louis University saw administrative personnel rating effectiveness as less effective with a score of 2.8889, security officers/guards as

effective with a score of 3.4167, students as effective with a score of 3.1678, and teaching/non-teaching staff as effective with a score of 3.2667. The data highlights a consistent trend where administrative personnel generally rate security officer effectiveness higher compared to other groups, indicating a more favorable view. Conversely, teaching/non-teaching staff often rate effectiveness lower, suggesting areas for improvement. Security officers/guards typically rate their effectiveness consistently higher, especially at universities like City of Malabon University and Pamantasan ng Lungsod ng Valenzuela. However, there are significant discrepancies in ratings between security officers and students/teaching staff, as seen at Navotas Polytechnic College and Arellano University, highlighting potential communication or perception gaps. The lowest ratings generally come from teaching/non-teaching staff and students, particularly at Arellano University and Navotas Polytechnic College, indicating substantial dissatisfaction with current maintenance issue protocols.

The data suggests a need for a more uniform approach to maintenance issue protocols that can bridge the perception gap between security officers and other campus stakeholders. Enhancing communication, training, and maintenance practices could improve overall effectiveness and satisfaction across all respondent groups.

The data provides insights into the impact of budgetary maintenance constraints on the effectiveness of security officers in various universities, as perceived by different respondent groups including administrative personnel, security officers/guards, students, and teaching/non-teaching staff.

Table 4 Problems in Campus Environment Maintenance and Management Impacting Security Officer Effectiveness due to Budgetary Maintenance Constraints

School/ University		Admin. Personnel	Security Officer/ Guard	Student	Teaching/ Non-Teaching
University of Caloocan City	Mean Std. Dev	3.8000 0.00000	3.0000 0.00000	3.0952 0.10703	3.0000 0.41866
La Consolacion College	Mean Std. Dev	3.5833 0.04466	3.4444 0.33333	3.0833 0.04845	2.9048 0.05906
City of Malabon University	Mean Std. Dev	3.6667 0.00000	3.6667 0.57735	3.1111 0.05970	2.8333 0.00000
Arellano University	Mean Std. Dev	3.0000 0.47605	2.8333 0.28868	3.0926 0.04972	2.2000 0.00000
Navotas Polytechnic College	Mean Std. Dev	3.5556 0.17326	2.3333 0.81650	2.9333 0.11948	2.5714 0.14841
Gov. Andres Pascual College	Mean Std. Dev	2.7333 0.05803	3.3333 0.02458	3.0833 0.09644	2.9333 0.35007
Pamantasan ng Lungsod ng Valenzuela	Mean Std. Dev	3.0000 0.14545	3.7778 0.06244	3.2821 0.05461	3.1429 0.14261
St. Louis University	Mean Std. Dev	3.0000 0.00000	3.5000 0.00000	3.2593 0.11778	3.3333 0.18575

Legend: 3.51 - 4.00 Very Effective; 2.51 - 3.50 Effective; 1. 51 - 2.50 Less Effective; 1.00 - 1.50 Not Effective

At the University of Caloocan City, administrative personnel rated the effectiveness at 3.8000, security officers/guards at 3.0000, students at 3.0952, and teaching/non-teaching staff at 3.0000. La Consolacion College saw administrative personnel rating effectiveness at 3.5833, security officers/guards at 3.4444, students at 3.0833, and teaching/non-teaching staff at 2.9048. City of Malabon University had administrative personnel giving a rating of 3.6667, security officers/guards at 3.6667, students at 3.1111, and teaching/non-teaching staff at 2.8333. Arellano University had administrative personnel rating effectiveness at 3.0000, security officers/guards at 2.8333, students at 3.0926, and teaching/non-teaching staff at 2.2000. Navotas Polytechnic College saw administrative personnel rating effectiveness at 3.5556, security officers/guards at 2.3333, students at 2.9333, and teaching/non-teaching staff at 2.5714. Gov. Andres Pascual College had administrative personnel giving a rating of 2.7333, security officers/guards at 3.3333, students at 3.0833, and teaching/non-teaching staff at 2.9333. At Pamantasan ng Lungsod ng Valenzuela, administrative personnel rated effectiveness at 3.0000, security officers/guards at 3.7778, students at 3.2821, and teaching/non-teaching staff at 3.1429. St. Louis University saw administrative personnel rating effectiveness at 3.0000, security officers/guards at 3.5000, students at 3.2593, and teaching/non-teaching staff at 3.3333. The data reveals a trend where administrative personnel often rate the effectiveness of security officers higher compared to other groups, indicating a more favorable view of their performance. In contrast, students and teaching/non-teaching staff generally rate effectiveness lower, suggesting they might experience more challenges or see more issues related to budgetary constraints. Security officers/guards ratings vary significantly across universities, with notable discrepancies, especially at Navotas

Polytechnic College and Arellano University, highlighting potential issues in budget allocation and its impact on their effectiveness.

The data reveals that there is a need for a more balanced and effective budgetary allocation to address maintenance constraints, ensuring that security officers can perform their duties more effectively and that there is a more consistent perception of their effectiveness across all respondent groups.

3.23. Relationship Between Environmental and Infrastructural Factors and the Effectiveness of Campus Security Officers

The quantitative analyses from Tables 5, 28, 29, and 30 collectively reveal that various environmental, infrastructural, and design-related elements significantly influence the effectiveness of campus security officers. In Table 5, the relationship between visibility-obstructing designs and the effectiveness of security officers in monitoring campus spaces and buildings is found to be statistically significant, with a p-value of 0.00, well below the 0.05 significance threshold. This leads to the rejection of the null hypothesis and affirms that visibility issues negatively affect monitoring efficiency. Similarly, Table 28 demonstrates a significant relationship between environmental factors—such as lighting, landscaping, and campus layout—and security officers' effectiveness, again with a p-value of 0.00. This suggests that optimizing these environmental conditions can enhance safety protocols and situational awareness. Table 29 further supports this by showing that the practices of security officers are significantly associated with the reinforcement of territorial ownership and identity within the campus community. This indicates that how officers interact with both individuals and infrastructure plays a vital role in fostering a collective sense of security and belonging. Lastly, Table 30 reveals a significant relationship between issues in campus environment maintenance and management and the effectiveness of security officers' safety efforts. With a consistent p-value of 0.00, it is clear that inadequacies in facility upkeep hinder security personnel in fulfilling their roles. Altogether, the data underscore that a well-designed, properly maintained campus environment, along with proactive security practices, is crucial for ensuring a secure educational setting.

4. Conclusions

The study concludes that the distribution of respondents across various universities and categories provides a well-rounded perspective on campus security. This diversity allows for a more accurate understanding of how different groups perceive safety measures. Findings also show a generally positive perception of security officers' effectiveness in monitoring campus areas and implementing access control. However, inconsistencies across institutions and respondent groups reveal the need to strengthen certain aspects, particularly interdepartmental collaboration and response protocols for security breaches. Additionally, campuses demonstrate a positive sense of territorial ownership and identity, supported by clear boundaries, strategic landscaping, and active community involvement. However, recurring issues in campus maintenance and management hinder security efforts. These include inefficiencies in maintenance services and limited budgets, underscoring the importance of standardizing maintenance practices and allocating resources more effectively. Finally, hypothesis testing confirms significant links between the effectiveness of security officers and several factors such as obstructive environmental designs, officer practices, and campus infrastructure, offering critical insight into areas that influence overall campus safety. In light of these conclusions, several recommendations are proposed. Educational institutions should invest in advanced training for security officers to enhance their ability to manage campus security, address breaches, and communicate effectively. Strengthening collaboration between departments is also essential, as it promotes unified responses and better coordination during incidents. The expansion of surveillance technology is encouraged, including broader deployment of CCTV systems and modern access controls to reduce blind spots and increase deterrence. Equally important is the need to standardize maintenance protocols across campuses, ensuring infrastructure issues are addressed promptly and uniformly. Institutions must also prioritize budget allocation for security-related needs, including officer training, technology upgrades, and facility upkeep. Lastly, fostering a culture of community engagement is vital—through awareness campaigns, open forums, and inclusive safety initiatives, members of the campus community can become active participants in maintaining a secure environment. Together, these strategies can significantly improve the effectiveness of campus security systems, creating a safer academic space for students, faculty, staff, and visitors.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

References

[1] Abad, M. (2021). Face-to-face classes for all degree programs to roll out in phases. Education in the Philippines. https://www.rappler.com/nation/ched-saysface-to-face-classes-all-degree-programs-roll-out-inphases/

[2] Abdullahi, A., & Orukpe, P. E. (2016). Developing of an integrated campus security alerting system.

[3] Abeer, S., Farhat, J., & Ruhi, K. (2017). Workplace stress and coping strategies of security guards working in universities. Pakistan Journal of Social and Clinical Psychology, 15(2), 29–36.

[4] Abiodun, T. F. (2016). An appraisal of Nigeria's counter-terrorism policy: The case of Boko Haram. In Akinwunmi & Olaniyan (Eds.), Global perspectives in education: A book in honour of Late Prof. Mobolaji Ogunsanya (pp. xx–xx). His Lineage Publishing House.

[5] Abiodun, T. F., & Nwannenaya, C. (2017). Illicit drug trafficking in Nigeria: Obstacle to national development and security. Journal of Political Sciences and Public Affairs, 5(1). Washington, D.C.

[6] Abiodun, T. F., Adeyekun, I., Onafowora, O., & Nwannenaya, C. (2018). Small arms and light weapons proliferation and its threats to Nigeria's internal security. International Journal of Social Science and Humanities, 6(3), 34–45.

[7] Addington, L. (2018). The use of visible security measures in public schools: A review to summarize current literature and guide future research. American University School of Public Affairs Research Paper (No. 3240204).

[8] Adeniran, A. O., Hamid, M. J., & Noor, H. M. (2020). Impact of information technology on strategic management in the banking sector of Iraq. Insights into Regional Development, 2(2), 592–601. https://doi.org/10.9770/IRD.2020.2.2(7)

[9] Adil, C. R. (2022, January 12). Crime prevention: Theories & environmental factors. LinkedIn. https://www.linkedin.com/pulse/crime-prevention-theories-environmental-factors-adil-cpp-lssbb/

[10] Agbonkpolor, M. U. (2020, July 19). Evaluation of security technology for proactive safety management in public schools in Edo North Senatorial District of Edo State. https://ijhumas.com/ojs/index.php/kiujoss/article/view/880

[11] Ahamefula, I. (2013). Higher education crisis amid students' protests. Sun News Online. https://www.sunnewsonline.com

[12] Ajayi, I. A. (2014). Managing the education system in a poverty-ridden economy: The unhealthy rivalry between efficiency and effectiveness. 38th Inaugural Lecture, EKSU Press.

[13] Anderson, T., & Taylor, Y. (2006). On defiance and taking positions. In Reflections on exile and other essays (pp. 502–503). Harvard University Press.

[14] Anyon, J. (2017). Social class and the hidden curriculum of work. In Childhood socialization (pp. 369–394). Routledge.

[15] Assbeihat, J. M. (2016). The impact of collaboration among members on team's performance. Management and Administrative Sciences Review, 5(5), 248–259.

[16] Ayodele, J. B. (2012). Socio-economic implications of private participation in the provision of university education in Nigeria. Literacy Information and Computer Education Journal, 2(1), 305–309.

[17] Bachman, R., Randolph, A., & Brown, B. L. (2011). Predicting perceptions of fear at school and going to and from school for African American and White students: The effects of school security measures. Youth & Society, 43(2), 705–726.

[18] Banaeianjahromi, N., & Smolander, K. (2017). Lack of communication and collaboration in enterprise architecture development. Information Systems Frontiers, 21(4), 877–888. https://doi.org/10.1007/s10796-017-9779-6

[19] Barnham, C. (2015). Quantitative and qualitative research: Perceptual foundations. International Journal of Market Research, 57(6), 837–854.

[20] Barte, B. C. H., Catugal, J. L., Largo, C. A., Paglinawan, L. B. J., Culanag, T. Y., & Cuevas, J. F. (2022). Level of preparedness of the school security personnel and their qualifications towards institutional security. Mediterranean Journal of Basic and Applied Sciences, 6(2), 85–102. https://doi.org/10.46382/mjbas.2022.6210

[21] Beard, J. (2010). Students' perception of safety on the campus, Tennessee State University. ETD Collection. ProQuest Digital Dissertation.

[22] Bergeron, W. P. (2016). Making a case for comprehensive school safety and security. Jacksonville State University, Department of Emergency Management. https://jsu.edu/em/dissertation_Making_a_Case_for_Comprehensive.pdf

[23] Bilan, Y., Mishchuk, H., Roshchyk, I., & Kmecova, I. (2020). Analysis of intellectual potential and its impact on the social and economic development of European countries. Journal of Competitiveness, 1, 22–38. https://doi.org/10.7441/joc.2020.01.02

[24] Binaluyo, J. P., Santos, A. R., & Agustin, N. B. (2024). Challenges and Opportunities for Digital Transformation in Philippine Microfinance Institutions. International Journal of Economics and Financial Issues, 14(5), 269–278. https://doi.org/10.32479/ijefi.16526

[25] Boards Association. (2018). National School Boards Association. https://www.nsba.org

[26] Bombiak, E. (2020). Advances in the implementation of the model of sustainable human resource management: Polish companies' experiences. Entrepreneurship and Sustainability Issues, 7(3), 1667–1687. https://doi.org/10.9770/jesi.2020.7.3(16)

[27] Bracy, N. L. (2011). Student perceptions of high-security school environments. Youth & Society, 43(1), 365–395.

[28] Bradford, B., Huq, A., Jackson, J., & Roberts, B. (2014). What price fairness when security is at stake? Police legitimacy in South Africa. Regulation & Governance, 8(2), 246–268.

[29] Brown, B., & Benedict, W. R. (2005). Classroom cops, what do the students think? A case study of student perceptions of school police and security officers conducted in a Hispanic community. International Journal of Police Science & Management, 7(4), 264–285.

[30] Caleb, A. (2013, January 10). How safe are Nigerian campuses? Vanguard News. https://www.vanguardngr.com/2013/01/how-safe-are-nigerian-campuses

[31] Campus Security - U.S. Department of Education. (2014). https://www2.ed.gov/admins/lead/safety/campus

[32] Campus Security Act. (2019). Senate Bill 703. 18th Congress, Republic of the Philippines.

[33] Casella, R. (2006). Where policy meets the pavement: Stages of public involvement in the prevention of school violence. International Journal of Qualitative Studies in Education, 15(3), 349–372.

[34] Casella, R. (2018). School security and its corporate offerings. In The Palgrave International Handbook of School Discipline, Surveillance, and Social Control (pp. 389–404). Palgrave Macmillan.

[35] CHED Memorandum Order-09-Series. (2013).

[36] Cipres, M. C. C. (2022). Assessment of school security practices implemented at Visayas State University Tolosa in the new normal. Assessment, 7(5).

[37] Commission on Audit. (2021). Malabon City – Executive Summary.

[38] Cook, P. J., Gottfredson, D. C., & Na, C. (2010). School crime control and prevention. Crime and Justice, 39(1), 313–440. https://doi.org/10.1086/652387

[39] Daud, A. H., Thinguri, R., & Mugwe, M. (2023). The power of stakeholders' security plan implementation in security management outcomes: Lessons from public secondary schools in Mandera County, Kenya. East African Journal of Education Studies, 6(1), 133–147. https://doi.org/10.37284/eajes.6.1.1079

[40] Daud, A., Thinguri, R., & Mugwe, M. (2022). Influence of stakeholders' contribution on security management outcomes in public secondary schools in Mandera County, Kenya. African Journal of Education and Practice, 8(5), 34–44. https://doi.org/10.47604/ajep.1621

[41] De Leon, C. L., & Santos, A. R. (2025). Consumer Profile and Rabbit Meat Preferences: Analyzing Marketability and Acceptance Using the 4A's Model of Marketing. Research on World Agricultural Economy, 702-716.

[42] Eboña, N. R. (2012). Security and risk reduction management in different secondary schools in Naga City (Unpublished master's thesis). Naga College Foundation.

[43] Ellul, D. A. B. (2008). Risk perception, awareness and preventive measures to reduce risk and hazards in Malta (Doctoral dissertation, Florida, USA). http://www.dissertation.com

[44] Enang, I. I. (2019, June 26–28). Strengthening campus internal security against criminalities and unacceptable conducts. Paper presented at Security Workshop for Association of Heads of Security of Tertiary Institutions, University of Calabar.

[45] English Oxford Living Dictionary. (2017). Security. https://en.oxforddictionaries.com/definition/security

[46] Fatma, O., Ceyhun, D., & Tulin, A. (2010). School security problems and the ways of tackling them. Procedia - Social and Behavioral Sciences, 2, 5377–5383. https://doi.org/10.1016/j.sbspro.2010.03.876

[47] Gamit, A. M. (2024). Enhancing statistical literacy: Developing and implementing Android-based performance tasks in mathematics. International Journal of ADVANCED AND APPLIED SCIENCES, 11(12), 215–224. https://doi.org/10.21833/ijaas.2024.12.024

[48] Gill, M., Howell, C., McGeer, C., & Ramm, J. (2019). The evolution of physical security measures: Assessing the benefits and implications of using more advanced technologies. Perpetuity Research & Consultancy International. https://perpetuityresearch.com/wp-content/uploads/2019/10/Evolution-of-physical-security-measures-Final-Report-.pdf

[49] Global Terrorism Index. (2015). Meaning and understanding the impacts of terrorism. Institute for Economics and Peace. https://economicsandpeace.org

[50] Haralambos, M., & Oputeh, W. (2008). Sociology: Themes and perspectives (7th ed.). HarperCollins Publishers Ltd.

[51] Hunady, J., Orviska, M., & Sarkanova, B. (2014). Determinants of European firm's innovation and the role of public financial support. European Financial and Accounting Journal, 9.

[52] Indeed. (2023, August 24). Examples of communication and collaboration skills. https://au.indeed.com/career-advice/career-development/communication-and-collaboration-skills

[53] Kim, K., Choi, S., & Lee, S. (2020). The effect of financial support on firm innovation collaboration and output: Does policy work on the diverse nature of firm innovation? Journal of the Knowledge Economy. https://doi.org/10.1007/s13132-020-00667-9

[54] Kimanthi, M. (2019). Safety standards and guidelines implementation on security management in public boarding secondary schools in Kitui County, Kenya (PhD thesis). Mount Kenya University.

[55] Kum, F. D., Cowden, R., & Karodia, A. M. (2014). The impact of training and development on employee performance: A case study of ESCON Consulting. Singaporean Journal of Business Economics and Management Studies, 3(3), 72–105.

[56] Kupchik, A. (2010). Homeroom security: School discipline in an age of fear (Vol. 6). NYU Press.

[57] Laužikas, M., & Miliūtė, A. (2020). Human resource management effects on sustainability of high-tech companies: What Lithuania and South Korea can learn from each other. Insights into Regional Development, 2(2), 562–579. https://doi.org/10.9770/IRD.2020.2.2(5)

[58] Lupos, J. S. (2017). Physical security at Nueva Ecija University of Science and Technology, Cabanatuan City, Nueva Ecija (Unpublished thesis). CICOSAT Colleges.

[59] Mabanglo, J. (2020). Campus security practices' assessment of Philippine College of Science and Technology. International Journal of Advanced Research Projects, 14–18.

[60] McNeal, L. R., & Dunbar, C. (2010). In the eyes of the beholder: Urban student perceptions of zero tolerance policy. Urban Education, 45(3), 293–311. https://doi.org/10.1177/0042085910364475

[61] Mensah, F. O., Baafi, J. A., Arthur, Y. D., Somuah, C. O., & Mprah, R. (2019). Campus security and safety models: Statistical empirical analysis from a Ghana tertiary institution. Journal of Education and Practice, 10(12), 52–58.

[62] Ministry of Education, Science and Technology. (2008). Safety standards manual for schools in Kenya (1st ed.). Church Publishers.

[63] Mishchuk, H., Bilan, Y., & Pavlushenko, L. (2016). Knowledge management systems: Issues in enterprise human capital management implementation in transition economy. Polish Journal of Management Studies, 14(1), 163–173. https://doi.org/10.17512/pjms.2016.14.1.15

[64] Musu-Gillette, L., Zhang, A., Wang, K., Zhang, J., Kemp, J., Diliberti, M., & Oudekerk, B. A. (2018). Indicators of school crime and safety: 2017. National Center for Education Statistics. https://nces.ed.gov/pubs2018/2018036.pdf

[65] National School Boards Association. (2013). School safety, security, and emergency preparedness. https://www.nsba.org

[66] Nda, M. M., & Fard, R. Y. (2013). The impact of employee training and development on employee productivity. Global Journal of Commerce and Management Perspective, 2(6), 91–93.

[67] New Zealand Security Intelligence Service. (2017). Department of the Prime Minister and Cabinet.

[68] Nikita, T. (2023, July 10). The impact of employee financial support. Support Room. https://supportroom.com/blog/the-impact-of-employee-financial-support/

[69] Noe, R. (2009). Employee training & development (5th ed.). McGraw-Hill/Irwin.

[70] Nuth, M. S. (2008). Taking advantage of new technologies: For and against crime. Computer Law & Security Review, 24(5), 437–446. https://doi.org/10.1016/j.clsr.2008.07.003

[71] O'Daniel, M. (2008, April 1). Professional communication and team collaboration. Patient Safety and Quality – NCBI Bookshelf. https://www.ncbi.nlm.nih.gov/books/NBK2637/

[72] Official Gazette. (2017). The 1987 Constitution of the Republic of the Philippines, Article III. http://www.officialgazette.gov.ph/constitutions/the-1987-constitution-of-the-republic-of-the-philippines/the-1987-constitution-of-the-republic-of-thephilippines-article-iii/

[73] Oladipo, S. A., Awoyinfa, J. O., & Adefarakan, O. S. (2018). Institutional critical factors in university personnel security. International Journal of Innovative Business Strategies (IJIBS), 4(2), 219–227.

[74] Omer, H. (2021). Non-violent resistance: A new approach to violent and self-destructive children. Cambridge University Press.

[75] Oni, J. A. (2016). Combating security challenges in the university system. Paper presented at the National Conference of Nigerian Universities Professional Administrators (CANUPA).

[76] Oprean, C., Țîțu, M., & Tănăsescu, C. (2017). Security management of university campuses. International Conference KNOWLEDGE-BASED ORGANIZATION, 23(1), 418–422.

[77] Ortega Anderez, D., Kanjo, E., Anwar, A., Johnson, S., & Lucy, D. (2021). The rise of technology in crime prevention: Opportunities, challenges and practitioners' perspectives.

[78] Pascua, J. R. (2018). Employees of satisfaction on the implementation of the security and safety practices at Cagayan State University–Piat Campus.

[79] Pocztowski, A. (2003). Human resource management: Strategies – processes – methods. Publishing House PWN.

[80] Pogoson, I. A. (2013). Towards a more inclusive national security architecture: Promise and prospects of female combatants in the Nigerian Armed Forces. Paper presented at the Nigerian Army Interactive Session on Civil-Military Relations, 2 Division Auditorium, Ibadan.

[81] Poorani, S., & Krishnan, L. (2023). Manufacturing technology trends in auto sector guiding skill enhancement and employee retention. Social Science Research Network. https://doi.org/10.2139/ssrn.4458873

[82] Presado, J. E. (2016). The level of security management in the University of Eastern Philippines. http://uruae.org/siteadmin/upload/5695UH0516138.pdf

[83] Razik, T., & Swanson, A. (2017). Fundamental concepts of educational leadership and management (3rd ed.). Pearson Education Inc.

[84] Republic Act No. 5487. Security Agency Law.

[85] Rosenberg, G. (2014, May 27). 5 major issues campus security officers will face today. Security Magazine. https://www.securitymagazine.com/articles/85537-major-issues-cc

[86] School and Campus Security. (2012). http://www.securitymanagement.com/sites/securitymanagement.com/files/casestudy-schoolcampussecurity_2012-08

[87] Senate Bill 703. (2019). Campus Safety and Security Act. https://www.senate.gov.ph/lis/bill_res.aspx?q=SBN-703

[88] SunStar Manila. (2016). Senators urge tighter security in schools amid bomb scares. http://www.sunstar.com.ph/manila/local-news/2016/09/09/senatorsurge-tighter-security-schools-amid-bomb-scares-496685

[89] Tari, B. N. (2004). A perspective into students' politics in Nigerian universities: A review. Journal of Curriculum and Instruction, 1(1), 79–87.

[90] Technical Education and Skills Development Authority (TESDA). (n.d.). Training regulations: Security services NCI. https://www.merriam-webster.com/dictionary/security

[91] Tufano, A. (2020). The violence-free workplace: A blueprint for utilizing professional security officers to prevent and respond to workplace violence. CRC Press.

[92] Tuliao, R. C., Santos, A. R., & Ortega, S. A. (2024). The role of mobile phones in facilitating business education during the transition to new normal learning models. International Review of Management and Marketing, 15(1), 146–158. https://doi.org/10.32479/irmm.17556

[93] U.S. Department of Education. (2017). The handbook for campus safety and security reporting. https://www2.ed.gov/admins/lead/safety/campus.html

[94] Uzuegbu-Wilson, E. (2019). Security challenges of attacks on schools in Nigeria: The role of school administrators, staff, parents and students. Social Science Research Network. https://doi.org/10.2139/ssrn.3456304

[95] Vinoth, K. P. (2023, September 27). Why proactive monitoring matters: Benefits and best practices. KnowledgeHut. https://www.knowledgehut.com/blog/devops/proactive-monitoring#challenges-in-proactive-monitoring

[96] Williams, P. (2018). Security studies: An introduction. Routledge.

[97] Woodruff, R. (2022). The responsibilities of school security personnel. Campus Security Today.

[98] Zubairi, M. N., & Khan, T. Z. (2018). The effect of training and development on job satisfaction, skill enhancement and motivation of employees. International Journal of Research - Granthaalayah, 6(11), 290–298. https://doi.org/10.29121/granthaalayah.v6.i11.2018.1130