

# Implementation of School Security Programs in Lyceum of Tuao: Basis for Comprehensive Security Enhancement Plan

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## Abstract

This study assessed the implementation of school security programs in Lyceum of Tuao, focusing on physical, personnel, and document security. It aimed to determine the demographic profiles of employees and students, evaluate the extent of program implementation, identify differences in perceptions between groups, and propose measures for improvement. A mixed-method approach was employed, combining quantitative surveys with qualitative narratives. The respondents included 70 teaching and non-teaching personnel and 200 students, selected through total enumeration and convenience sampling. Data were gathered using a structured questionnaire and analyzed through frequency counts, weighted means, and t-tests. Findings revealed that employees were diverse in age, sex, education, and length of service, while students were predominantly young, single, and male, with first-year students forming the largest group. Security programs were generally rated as “implemented” to “well implemented,” with physical measures such as fencing, CCTV installation, and gate security receiving high ratings. Personnel security practices, particularly background checks, were also viewed positively. Differences in perception were minimal, though ethnic affiliation among employees and year level among students significantly influenced assessments. The study concluded that Lyceum of Tuao maintained effective security programs but required continuous enhancement, inclusivity, and modern technologies to ensure a safer and more resilient learning environment.

**Keywords:** *school security programs, physical security, personnel security, document security, security system, security management.*

## INTRODUCTION

Introduction Educational institutions are expected to provide not only quality instruction but also safe, secure, and inclusive learning environments where students, faculty, staff, and visitors can learn and work without fear of violence, crime, disasters, or other threats. In an increasingly complex and technology-driven society, schools face a wide range of security challenges, including unauthorized access, theft, vandalism, physical violence, fire incidents, cyberattacks, and breaches of confidential information. These emerging risks have prompted educational institutions worldwide to adopt comprehensive school security programs that integrate physical security, personnel security, document and information security, emergency preparedness, and stakeholder participation.

According to the International Organization for Standardization (ISO, 2018), UNESCO (2019), and the U.S. Department of Education (2013), effective security programs are initiative-taking systems designed to protect people, assets, facilities, and information while ensuring the continuity of institutional operations during emergencies. The implementation of comprehensive school security programs directly contributes to the attainment of the United Nations Sustainable Development Goals (SDGs), particularly Sustainable Development Goal 4 (Quality Education) and Sustainable Development Goal 16 (Peace, Justice, and Strong Institutions). SDG 4 emphasizes the provision of inclusive, equitable, and quality education through safe, non-violent, and effective learning environments where learners can achieve their full potential. Meanwhile, SDG 16 promotes peaceful and inclusive societies, effective institutions, and the rule of law by strengthening institutional governance, accountability, safety, and public trust. Moreover, school security initiatives indirectly support SDG 3 (Good Health and Wellbeing) by safeguarding the physical and psychological wellbeing of students and employees and SDG 11 (Sustainable Cities and Communities) by enhancing community resilience through disaster preparedness, emergency response, and partnerships with local government and law enforcement agencies. Consequently, strengthening school security is not only an institutional responsibility but also an essential component of sustainable educational development.

Globally, educational institutions have intensified efforts to improve campus security because of the increasing occurrence of school-related violence, criminal activities, natural disasters, and cybersecurity threats. Advances in technology have led schools to adopt modern security measures such as closed-circuit television (CCTV) systems, electronic access control, visitor management systems, emergency notification platforms, and digital surveillance technologies. Reports from the National Center for Education Statistics indicated that approximately 80 percent of secondary schools in the United States have installed surveillance cameras, while similar technologies have become standard security features in schools across the United Kingdom, Australia, and other countries (Gray & Lewis, 2015). In addition, educational institutions continue to strengthen cybersecurity measures to protect digital records, learning management systems, and sensitive institutional information from increasingly sophisticated cyber threats (UNESCO, 2023; CISA, 2023).

In the Philippines, ensuring school safety has become an important concern among educational institutions as they respond to both traditional and emerging security challenges. Schools are expected to establish effective security measures that protect students, faculty members, administrative personnel, visitors, and institutional 4 University Of Cagayan Valley Graduate School resources while complying with existing laws and policies on safety, disaster preparedness, and data privacy. These measures include access control, visitor management, emergency preparedness, deployment of trained security personnel, protection of confidential documents, and collaboration with local government units and law enforcement agencies. Such initiatives contribute to building resilient educational institutions capable of sustaining quality educational services despite security-related challenges.

At the institutional level, the Lyceum of Tuao is one of the private higher education institutions in the Municipality of Tuao, Province of Cagayan, committed in providing quality education while maintaining a safe, secure, and orderly learning environment. The institution currently serves 963 students and supported by 71 teaching and administrative personnel. To maintain campus safety, three trained security personnel are assigned to regulate access to school premises, monitor visitors, protect school facilities, enforce institutional policies, and respond to emergencies. Although the security personnel possessed experience and training acquired through private security agencies, the increasing demands of campus security require continuous assessment and enhancement of existing security practices.

The strategic location of the Lyceum of Tuao further highlights the importance of an effective security system. The campus was surrounded by key public institutions, including Sto. Angel Parish Church, Tuao Central Elementary School, the Tuao Police Station, the Municipal Town Hall, and the National Irrigation Administration (NIA). While this location enabled efficient coordination with local authorities during emergencies, it likewise increases the need for effective access control, visitor management, and campus monitoring to ensure the safety of students, employees, and visitors.

Despite the implementation of existing security measures, recent incidents within the institution—including petty theft, pilferage, malicious mischief, unlawful entry, minor acts of arson, and stabbing incidents—have heightened concerns regarding campus safety. These incidents demonstrate that educational institutions remain vulnerable to both internal and external security threats, emphasizing the need to evaluate whether current security measures adequately address the institution's evolving security requirements. Likewise, increasing reliance on digital technologies has expanded institutional exposure to cybersecurity risks involving confidential academic records, personnel files, and other sensitive information, making document and information security equally important components of campus safety. Although numerous international and local studies have examined school security, most focus on basic education institutions, public schools, or individual security components such as surveillance systems or emergency preparedness.

Limited empirical studies have comprehensively examined the implementation of physical security, personnel security, and document security programs within private higher education institutions, particularly in the Municipality of Tuao, Cagayan. This gap in the

literature underscores the need for a systematic assessment of the implementation of school security programs at the Lyceum of Tuao. The findings of this study are expected to provide evidence-based information that will assist school administrators in strengthening institutional security policies, improving emergency preparedness, enhancing physical, personnel, and document security measures, and promoting a culture of safety throughout the campus. Furthermore, the study will benefit students, faculty members, administrative personnel, security personnel, policymakers, and future researchers by contributing to the continuous improvement of school security practices. By supporting safer and more resilient educational environments, the study contributes to the realization of the Sustainable Development Goals, particularly SDG 3 (Good Health and Wellbeing), SDG 4 (Quality Education), SDG 11 (Sustainable Cities and Communities), and SDG 16 (Peace, Justice, and Strong Institutions).

### **Statement of the Problem**

This study aimed to assess the implementation of school security programs in Lyceum of Tuao. Specifically, it sought to answer the following questions.

1. What is the profile of the employee-respondents in terms of;

1.1 Age

1.2 Gender

1.3 Highest Educational Attainment

1.4 Length of Service

1.5 Religious Affiliation

1.6 Ethnic Affiliation

2. What is the profile of the student-respondents in terms of;

2.1 Age

2.2 Gender

2.3 Civil Status

2.4 Year Level

3. What is the level of implementation of the security programs as assessed by the respondents in terms of;

3.1 Physical Security

3.2 Personnel Security and;

3.3 Document Security

4. Is there a significant difference in the assessment of the implementation of school security programs between the two groups of respondents?

5. Is there a significant difference in the assessment of the implementation of school security programs as assessed by the two groups of respondents when grouped according to their profile variables?

6. What measures can be proposed to enhance the implementation of security programs?

## **Hypotheses**

This study was guided by the following hypotheses:

1. There is no significant difference in the assessment of the implementation of school security programs between the two groups of respondents.

2. There is no significant difference in the assessment of the implementation of school security programs as assessed by the two groups of respondents when grouped according to their profile variables.

## **METHODOLOGY**

### **Research Design**

This study employed quantitative descriptive research design because the study sought to describe the existing security practices of the Lyceum of Tuao rather than establish causal relationships or determine the effects of one variable on another. The design allowed the researcher to objectively present the respondents' assessments of the school's security measures and to identify areas of strength as well as aspects that require further improvement.

### **Respondents of the study**

The study involved a total population of 270 qualified respondents, consisting of two groups: (1) school personnel, composed of school administrators, faculty members, administrative personnel,

and security personnel; and (2) students enrolled in the College Department of the Lyceum of Tuao for the 2025- 2026 school year.

### Data Gathering Tool

The primary data-gathering instrument used in this study was an adapted questionnaire-checklist. The instrument was adapted from Pascua, J. (2018), "Employees' Level of Satisfaction on the Implementation of the Security and Safety Practices at Cagayan State University–Piat Campus." The original questionnaire was designed to determine employees' level of satisfaction with the implementation of the institution's security and safety practices. Since the present study focused on assessing the implementation of school security programs at the Lyceum of Tuao: Basis for Comprehensive Security Enhancement Plan, the instrument was modified to suit the objectives, respondents, and setting of the study. Several modifications were made to ensure the appropriateness of the instrument for the present investigation

### Statistical Tool

The following statistical tools were utilized in the analysis of the data that were gathered: Frequency Counts and Percentage Distributions were utilized to determine and assess the profile variables of the respondents in terms of age, gender, religious affiliation, and ethnic affiliation.

Moreover, Weighted Mean and standard deviation were used to determine the Level of Implementation of School Security Programs in the Lyceum of Tuao: Basis for Comprehensive Security Enhancement Plan, including physical security, personnel security, and document security. Mean scores were interpreted using specific scale

| Scale | Mean | Range  | Descriptive Equivalent |
|-------|------|--------|------------------------|
| 4     | 3.25 | – 4.00 | Well Implemented       |
| 3     | 2.50 | – 3.24 | Implemented            |
| 2     | 1.75 | – 2.49 | Slightly Implemented   |
| 1     | 1.00 | – 1.74 | Not Implemented        |

Independent Samples t-test was utilized to determine the Significant difference between the two respondent groups.

Furthermore, One-Way Analysis of Variance (ANOVA), a parametric statistical test, was used to determine the significant difference in the assessment of the implementation of school security programs, which served as the basis for the proposed comprehensive security enhancement plan, when the respondents were grouped according to their profile variables.

## RESULTS AND DISCUSSION

### 1. Profile of the employee-respondents

- The employee-respondents were 20–29 years old (44.3%), with a mean age of 37.24 years. Females comprised 57.1% (40) of the respondents, while males accounted for 42.9% (30). Most respondents were college graduates (42.9%), followed by those with postgraduate education (38.6%), and 17.1% were college level and below. The majority had 1–5 years of service (55.7%), with a mean length of service of 6.21 years. Most were Roman Catholics (92.9%), while 7.1% belonged to other religious affiliations. In terms of ethnic, the majority were Itawis (80.0%), followed by Ilocano (18.6%) and Malaueg (1.4%).

### 2. Profile of the student-respondents

The student-respondents were predominantly 20–24 years old (52.0%), with a mean age of 20.01 years. Male students comprised 59.5% (119) of the respondents, while females comprised 40.5% (81). The largest proportion were first-year students (40.5%), followed by fourth-year (24.0%), second-year (19.0%), and third-year students (16.5%).

### 3. Level of implementation of the security programs as assessed by the respondents

- The implementation of the school's security programs was generally Implemented, with an overall weighted mean of 3.19. Physical security obtained the highest rating from personnel ( $M = 3.33$ , Well Implemented) and from students ( $M = 3.24$ , Implemented). Among personnel security dimensions, recruitment obtained the highest mean ( $M = 3.32$ , Well Implemented), followed by document security ( $M = 3.16$ , Implemented), selection ( $M = 3.02$ , Implemented), separation ( $M = 3.01$ , Implemented), and promotion ( $M = 2.94$ , Implemented). Overall, the findings indicated that the school's security programs had been implemented.

### 4. Comparison in the assessment of the implementation of school security programs between the two groups of respondents

- The test of difference between the assessments of personnel and students showed no significant difference in physical security ( $t = 1.87$ ,  $p = 0.062$ ). However, significant differences were found in personnel security ( $t = 2.14$ ,  $p = 0.034$ ) and document security ( $t = 2.36$ ,  $p = 0.020$ ). 5. Comparison in the assessment of the implementation of school security programs as assessed by the two groups of respondents when grouped according to their profile variables

- The test of difference among the employee-respondents revealed that age, gender, length of service, and religious affiliation did not produce significant differences in the assessments of personnel, document, and physical security ( $p > 0.05$ ). However, highest educational attainment significantly affected the assessment of physical security ( $F = 3.092$ ,  $p = 0.010$ ), while ethnic affiliation significantly affected the assessments of personnel security ( $F = 4.148$ ,  $p = 0.046$ ), document security ( $F = 4.156$ ,  $p = 0.045$ ), and physical security ( $F = 9.066$ ,  $p = 0.004$ )

- The test of differences among the student-respondents showed that age, gender, and civil status did not produce significant differences in the assessments of the school's

security programs ( $p > 0.05$ ). However, year level significantly affected the assessments of personnel security ( $F = 5.149$ ,  $p = 0.002$ ), document security ( $F = 4.552$ ,  $p = 0.004$ ), and physical security ( $F = 3.185$ ,  $p = 0.025$ ).

## Conclusion

This study was conducted to determine the level of implementation of the school's security programs in terms of personnel security, document security, and physical security; determine whether significant differences existed between the assessments of employee and student respondents; and examine whether selected profile variables significantly influenced their assessments. The findings revealed that the school's security programs were implemented, with physical security receiving the highest ratings from both employee and student respondents, while personnel security and document security were likewise assessed as implemented. This indicated that the institution had established security measures across the three major security domains. The results further showed that employee and student respondents shared similar perceptions of physical security, as no significant difference was found in their assessments. However, significant differences existed in their assessments of personnel security and document security, suggesting variations in how these security measures were perceived by the two groups. The study also found that among employee-respondents, highest educational attainment significantly influenced the assessment of physical security, while ethnic affiliation significantly influenced the assessments of personnel security, document security, and physical security. Among student-respondents, year level significantly influenced the assessments of all three security domains, whereas age, gender, and civil status did not significantly affect their perceptions. Based on these findings, it was concluded that the school had implemented its security programs across personnel, document, and physical security. Nevertheless, the significant differences in the assessments of personnel and document security indicate the need to further strengthen the implementation and communication of these security measures to promote a more consistent understanding among stakeholders. Moreover, the influence of educational attainment, ethnic affiliation, and year level on respondents' assessments suggests that demographic characteristics should be considered when planning, implementing, and evaluating school security programs. Overall, the findings provide evidence that can guide school administrators in continuously improving security policies, procedures, and practices to support a safe, secure, and well-managed educational environment.

## Recommendations

Based on the findings of this study and the significance outlined, several recommendations are proposed to strengthen the implementation of school security programs in the Lyceum of Tuao: Basis for Comprehensive Security Enhancement Plan. These recommendations are aligned with the needs of the different stakeholders identified in the research. They are intended to provide practical, realistic, and evidence-based measures that may enhance safety, improve awareness, and foster collaboration among the school community and its partners.

1. **School Administration.** The administration of Lyceum of Tuao may sustain the implementation of its security programs by conducting regular evaluations of personnel security, document security, and physical security. The results of these evaluations may be used to identify areas requiring improvement and ensure that security policies remain responsive to the changing needs of the institution.
2. **Strengthen the School Security Organizational Structure.** The Lyceum of Tuao administration may designate a Data Privacy Officer (DPO) in accordance with the Data Privacy Act of 2012 (RA 10173) to oversee compliance with data privacy policies, monitor the processing of personal information, and lead privacy awareness and data protection initiatives. The institution should assign Controlled Document Officers in each office or department to ensure proper document classification, storage, access, retention, and disposal in compliance with document security requirements.
3. **Enhance Human Resource Support for Security.** The Human Resource and Administrative Office may recommend the hiring of additional security personnel to strengthen campus surveillance, emergency response, access control, and enforcement of institutional security policies.
4. **Operationalize Personnel Security.** Rather than treating personnel security as a broad concept, the institution should operationalize it by defining specific functions, responsibilities, and accountabilities. This may include assigning designated officers responsible for recruitment security, personnel screening, training and development, emergency preparedness, performance monitoring, and separation procedures. Clearly defined roles would improve accountability, consistency, and the effective implementation of personnel security programs.
5. **Personnel Security.** School administrators, faculty, staff, and security personnel may strengthen personnel security by consistently implementing recruitment, selection, promotion, and separation procedures in accordance with established policies. Regular orientation, professional development activities, and security awareness programs may also be conducted to ensure that employees understand their roles and responsibilities in maintaining campus safety.
6. **Document Security.** The school may strengthen document security by improving records management practices, enforcing confidentiality policies, and implementing stricter access control for both physical and electronic records. Periodic audits and monitoring of document handling procedures may also be conducted to ensure compliance with institutional policies and data protection standards.
7. **Physical Security.** The school administration may sustain and further enhance physical security by regularly inspecting and maintaining existing security facilities, including perimeter fencing, gates, lighting systems, and CCTV cameras. Additional security technologies, such as biometric access systems and upgraded surveillance equipment, may also be considered to strengthen campus protection, particularly in areas identified for improvement.
8. **Students, Parents, and Guardians.** Students may actively participate in safety orientations, emergency preparedness activities, and security awareness campaigns to promote a culture of shared responsibility. Parents and guardians may maintain regular communication with the school to remain informed about campus security policies and support the implementation of school safety programs.

9. Community and Law Enforcement Agencies. The local community and law enforcement agencies may continue to collaborate with the school by conducting joint emergency drills, crime prevention seminars, and information-sharing activities. Such partnerships may further strengthen preparedness, improve emergency response coordination, and reinforce security within and around the school premises.

10. Policy Makers. Educational authorities and policy makers may continuously review and strengthen school security policies by providing updated guidelines, technical assistance, and adequate funding to support improvements in personnel security, document security, and physical security across educational institutions.

11. Future Researchers. Future researchers may replicate this study in other higher education institutions or include additional variables and security dimensions to validate the present findings and contribute to the continuous improvement of school security management.

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