

Compliance of Public Elementary Schools in Safety and Security Services Based on School Size

Asia Pacific Journal of
Multidisciplinary Research

Vol. 7 No.4, 49-58

November 2019 Part IV

P-ISSN 2350-7756

E-ISSN 2350-8442

www.apjmr.com

CHED Recognized Journal

ASEAN Citation Index

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Date Received: October 15, 2018; Date Revised: November 19, 2019

Abstract – Promoting safety and security of pupils is the utmost concern of school administrators aside from fostering holistic development of the learners where school size is being considered as factor that might influence the conformity for certain standard. This study assessed the compliance to Department of Education's safety and security services of public elementary schools in the Division of a first class city in the Philippines. Quantitative-Descriptive type of research method was employed with 28 participating schools categorized into small, medium, and large as the subjects of the study. Findings revealed that public elementary schools in the area were established between 21 and 40 years ago. Most of the schools are located at the lowland areas and few in the highland areas of the city; most schools have 5,001 to 10,000 m² land area occupied. Half of school-respondents have 1,001 and above pupils which is considered large size in population. Annual budget allocation from Maintenance and Other Operating expenses (MOOE) for safety and security is between P10,000 and below. Most elementary schools in the Division are compliant as observed by the respondents in most indicators and parameters under the school site, canteen services, water safety, sanitary facilities, fire safety, campus security and building security provisions pertaining to the DepEd's Safety and Security Standards. Community and organizational factors affecting compliance is significantly higher among small size public elementary schools. Development intervention in the form of a training design was crafted to continuously improve and sustain the compliance of public elementary schools to standards.

Keywords – public elementary schools, safety, security, school facility and development

INTRODUCTION

A school serves as a second home of every learner. A home where they can learn, play, and grow in safe and sound environment. It is more than just a place where a child spends most of his/her waking hours. The entire personality of a child is immersed in the school being influenced by the school environment. A safe school environment is a prerequisite towards achieving the school goal. If the government is to effectively provide quality education, it must provide students an environment conducive to learning [1]. A safe learning environment is essential for students of all ages. Without it, they are unable to focus on learning the competencies (knowledge, skills, and attitude) needed for a successful education. By keeping the schools safe, it allows children to look forward to being in an encouraging environment that promotes social and creative learning. Promoting school safety creates an open space for kids to explore, learn and grow [2]. Dymont and Bell [3] believed that an environmental factor of particular importance to children's physical activity levels appears

to be the presence of parks and open space. Thus, in promoting children's health, school grounds merit consideration as a potential setting for intervention. The Department of Education believed that Education and health are interrelated. Academic performance of the pupils and instructional outcomes are determined by the quality of health of the school children. Thus, DepEd issued DepEd (DO) 65 in 2009 for the Implementation of Essential Health Care Program (EHCP) for the School Children [4].

To ensure the safe construction and management of school facilities in the Philippines, a Handbook on Educational Facilities was published. This handbook was revised in 2010 as the Physical Facilities Manual [5] while another DepEd Order 37 in 2015 was issued regarding the Comprehensive Disaster Risk Reduction and Management (DRRM) in Basic Education Framework [6].

The school security involves the entire process during which the child leaves from home to go to school and comes back to home. In this respect, many different

factors such as acts of violence, psychological and social security, substantial use, physical space security, health and nutrition, sexual abuse and traffic safety are related to school security. The fact that the students live in insecure environments is negatively reflected in healthy personality development and school success [7].

The Department of Education (DepEd) promotes health safety of the students in providing guidelines on setting food standards. DepEd issued in 2007 the revised implementing guidelines to rationalize the operation and management of school canteens in public elementary and secondary schools in the Philippines [8]. DepEd also issued Policy and Guidelines on Healthy Food and Beverage Choices in Schools and in DepEd Offices for the promotion and development of healthy eating habits among the youth and DepEd employees by making available healthy, nutritious, and affordable menu choices, and for setting food standards [9].

Educators have come to realize that the foundation of all learning is safety and security. Attendance and academic performance are closely linked to how safe students perceive the school environment to be. It was hard for young people to concentrate on learning when they feel vulnerable, and a climate of fear forces teachers to shift their focus from teaching to policing. Safety and security concerns have fast become an important part of any dialog about improving school wide academic performance [10].

It is imperative to heighten security and safety measures in all schools in order to reduce and prevent violence, avoid unfavorable incidents compromising lives of school community and ensure safety of children in schools. Recent incidents caused public concern which the government is called to give attention to. Thus, this study aims to determine the implementation of safety and security services in public elementary schools in a Division of one First Class City in the Philippines. The areas of concern are school site, canteen services, water safety, sanitation facilities, fire safety, campus security, and building's safety requirements. The findings of the study provides implication to the school administration and local government units on how to strengthen the safety and security of the learning environments to avoid accidents.

OBJECTIVES OF THE STUDY

The general objective of the study is to assess the schools' compliance to Department of Education's safety and security services in public elementary schools in Naga City division. The study aimed to describe the schools' demographics and bio-physical characteristics;

determine the status of schools' compliance to DepEd's safety and security services standards along: school site, canteen services, water safety, sanitary facilities, fire safety, campus security, and buildings' security requirements; identify organizational and community-related factors that facilitate the compliance to DepEd's safety and security service standards; and identify safety-and-security related issues and concerns experienced by the public elementary schools.

METHODS

The study was conducted in all categories of public elementary schools based on number of student population (small, medium and large) in the division of one first class city in the Philippines during the School Year 2018-2019. This first class city covers a total land area of 8, 448 hectares and it has 27 barangays and 28 public elementary schools.

The study employed the descriptive-evaluative and development methods of research. Descriptive-evaluative method was used in describing the profile of the schools and compliance. The development method was employed in crafting an intervention to improve the compliance of public elementary schools in the City to DepEd's safety and security standards.

The study made use of a semi-structured survey questionnaire. The questionnaire is composed of four parts which include: the school profile, the compliance of schools to DepEd's safety and security standards, observed organizational and community factors that facilitate the compliance, and the safety-and-security related issues and concerns experienced by the public elementary schools. The instrument was content-validated by experts in physical plant and facilities, and educational administration.

Respondents are informed regarding the purpose of the study and ensured that their responses will be treated with strict confidentiality as well as their anonymity as one of the participants. The findings of the study will not be used against the operation of the school but rather for the purpose of continuous improvement.

All data gathered from the questionnaire were tallied and analyzed using descriptive statistics such as frequency count and percentage. Secondary data such as DepEd Orders and DepEd memoranda related to the implementation of safety and security services in the public schools were also secured to substantiate the discussion of findings. Analysis of Variance was used to test the significant difference among the three groups according to school size using 0.05 alpha level.

RESULTS AND DISCUSSION

Table 1. Schools’ demographic characteristics of the public elementary schools in Naga City division (n=28)

School Profile	f	%
School Category		
Small	4	14.29
Medium	10	35.71
Large	14	50.00
Years of Existence		
20 years & below	7	25.00
21 – 40 years	8	28.57
41 – 60 years	7	25.00
61 years & above	6	21.43
Annual Budget Allocation for Safety & Security Services		
10,000 & below	21	75
10,001-50,000	4	14.29
50,001 – 100,000	3	10.71

All of the 28 public elementary schools in the Naga City Division were completely enumerated for the purpose of the study. Said schools are distributed according to categories, as follows: four or 14.29 percent small-sized; 10 or 35.71 percent as medium-sized; and 14 or 50 percent as large-sized. Along years of existence, seven or 25 percent of the elementary schools were established below 20 years; 8 or 28.57 percent operated between 21 to 40 years; 7 or 25 percent existed between 41-60 years; and 6 or 21.43 percent have been in existence from 61 years and beyond. Most of the pupils’ population were described according to school categories as shown in Table 2. Five (17.86 percent) of the school-respondents have 500 enrolled students and below categorized as small schools; while 9 (32.14 percent) schools have pupils’ population between 501-1,000 pupils and categorized as medium schools; and 14 (50%) schools have enrolment of 1,001 and above categorized as large schools. Nearly 15 percent of the public elementary schools in Naga City Division are classified as “small” having nine or lesser number of school personnel (teaching and non-teaching); while there were 10 (35.7 percent) schools out of 28 public elementary schools who have 10 – 29 personnel, categorized as “medium” school; and about 14 (50 percent) schools with 30 personnel and above, categorized as “large” schools. Of the 28 public elementary schools in Naga City division, 21 (75%) of them have budget allocation of P10,000 and below for safety and security services and 3 schools (10.71 percent) have P50,001 – P100,000 annual appropriated budget intended for safety and security services. In terms of awards and recognitions

received, of the 28 public elementary schools in Naga City division, 12 of them received citations as “Best Brigada Eskwela Implementers”; six schools were recognized as “Best Gulayan sa Paaralan Program Implementers”; two schools were conferred as being the “Best School-Based Feeding Program Implementers”; and 10 schools were awarded as “Most Friendly Schools” in Naga City Division for SY 2018-2019.

Table 2. Bio-physical characteristics of the public elementary schools in Naga City division ((n=28)

Bio-physical	f	%
Ecological Location		
Lowland	18	64.29
Upland	10	35.71
Land Area		
5,000 sq.m & below	7	25.00
5,001 – 10,000 sq.m.	13	46.43
10,001-15,000 sq.m.	5	17.86
15,001 sq.m. & above	3	10.71

There were 18 (64.29 percent) schools which can be found in the lowland areas of the city; and 10 or 35.71 percent are located in the upland barangays. As for the land area, 7 or 25 % of the schools have 5,000 square meters of landholdings and below; while 13 or 46.43 percent have between 5,001 – 10,000 square meters of land area; five or 17.86 percent have 10,001 – 15,000 square meters; and 3.0 or 10.71 percent of the schools have a land area of 15,001 square meters and above.

Table 3. Compliance of public elementary schools in Naga City to DepEd’s Safety and Security Standard along School Site (N=28)

STANDARD	S	M	L	TOTAL	
	%	%	%	f	%
Maximum time from home to school on board a public conveyance is 30 minutes	100	100	100	28	100
Maximum distance from home to school by walking is 2-3 kilometers	100	100	100	28	100
Located beyond 200 meters away from ill-repute places	100	90	100	27	96.4
Impervious surfaces (concrete pavement, asphalted surfaces, etc.) are minimized	100	100	85.7	26	92.9
Located beyond 200 meters away from recreational establishment	100	70	92.9	24	85.7
Land contour is level and have no irregular boundaries	75	100	78.6	24	85.7
Located beyond 200 meters away from barangay hall and social centers	100	80	57.1	20	71.4
Occupied Ground area occupied by school buildings and other structures does not exceed 40% of the school site	50	90	64.3	20	71.4

In Table 3, all public elementary schools in Naga City division have a 100 percent compliance with the required time of 30-minute ride from home to school and required maximum distance of 2-3 km walk from home to school. This reveals that schools are located near the residences of the school children where accessibility and distance is convenient to all pupils and teachers. The compliance of school site in terms of location ranges from 85 to 96 percent. This shows that public elementary schools in Naga City division are located beyond 200 meters away from ill-repute places and recreational establishments. Further, this indicates that the presence of the schools in an area is considered in establishing recreational establishments like shopping malls, videoke bars, night clubs and cockpit arenas to avoid conditions endangering the health, safety, and morality of the pupils. On the other hand, there are 20 (71.4 percent) schools which stated that their school is located beyond 200 meters away social centers or barangay halls; and the ground area occupied by school buildings and other structures does not exceed 40 percent of the school site. This finding reveals that there are schools that do not conform to the standards on land use because of the limited land area occupied by the schools. As enrollment increases, the need for buildings and classrooms also increases. Thus, resulting to maximization of the schools' land area.

In Table shows that among the 28 school-respondents, 27 or 96.4 percent perceived that their school canteen complied with the following guidelines: operates a canteen inside the school premises; has clean plates, glasses, and eating utensils; provides handwashing facilities; observes proper handling of foods; ensures availability of clean, safe and free drinking water; and allows reasonable mark-up price for all merchandise. These findings are consistent with guidelines on the operation of a canteen in DepEd schools, stating that “for every 1,000 pupils or less, school is required to operate a canteen. However, there were only 18 (64.3 percent) of the school-respondents who complied with the following guidelines: foods in green category are always available; vendors are not allowed to bring in foods items inside the school canteen/premises; and prohibits sub-leasing or subcontracting the operation of the school canteen to concessionaires. Most foods under green category are not saleable and attractive among school children. Vendors are also allowed to bring in and sell food items inside the school premises because of the “*plasada*” that is being collected on a day-to-day basis and canteens are sub-contracted to concessionaires because of the monthly rental that serves as school canteen fund which are

considered potential buffers and sources to augment the budget for the conduct of the different projects and activities of the school. Further, there are only 17 (60.7 %) out of 28 school-respondents who have complied with the provision that foods in red category must not be available inside the school premises.

Table 4. Compliance of public elementary schools in Naga City division to DepEd’s Safety and Security Standard Along Canteen Services (N=28)

Standard	S	M	L	TOTAL	
	%	%	%	f	%
Clean plates, glasses, and eating utensils are provided	100	90	100	27	96.4
For every 1,000 or less pupils, school is required to operate a canteen	100	90	100	27	96.4
Handwashing facilities are provided	100	90	100	27	96.4
Proper and safe handling of foods are observed	100	90	100	27	96.4
Availability of clean, safe, and free drinking water is ensured	100	90	100	27	96.4
Reasonable mark-up price for all merchandise is allowed	100	90	100	27	96.4
Condiments such as soy sauce, fish sauce and other sauces are not available on dining tables	25	70	92.9	21	75.0
Familiar food plate model is used in the canteen	50	70	85.7	21	75.0
Only nutrient-rich foods are sold in the canteen	100	80	50.0	19	67.9
Foods in green category are always available	50	70	64.3	18	64.3
Vendors are not allowed to bring in food items inside the school canteen/premises	75	60	64.3	18	64.3
Sub-leasing or subcontracting the operation of the school canteen to concessionaries is prohibited	75	70	57.1	18	64.3
Foods in red category are not available	75	80	42.9	17	60.7

Rahman et al. [18] noted that knowledge of food workers does not directly affect the practices of food workers' hygiene sanitation, and besides knowledge,

other factors can affect the practice of sanitation hygiene such as work experience.

Table 6. Compliance to DepEd Safety and Security Standard of public elementary schools in Naga City along Water Safety (N=28)

STANDARD	S %	M %	L %	f	TOTAL %
Clean water for cleaning purposes within the school setting is supplied	100	100	100	28	100
Safe drinking water is supplied in school regularly	100	100	100	28	100
Daily cleaning and regular maintenance activities as well as repair of water supply facilities are conducted	75	100	85.7	25	89.3
Sanitary permit from Local Health Office is secured	75	90	71.4	22	78.6
Food handlers have an updated health certificate issued by the local health authority	75	80	71.4	21	75.0
Regular monitoring of water quality is conducted	50	70	50	16	57.1
Rainwater catchment systems were installed in schools	25	50	0	6	21.4

In Table 6, there is a 100 percent of the school-respondents complied in water safety in terms of supplying safe drinking water in school regularly and for cleaning purposes within the school setting. In addition, 25 (89.3 percent) out of 28 school-respondents complied in conducting daily cleaning and regular maintenance activities as well as repair of water supply facilities respectively. The compliance of schools in water safety can be attributed to the provision of budget from the school MOOE for utilities such as water and electric bills. The Metro Naga Water District (MNWD) also ensures that the water they supply in Naga City is clean and safe. However, only 16 (57.1 percent) school-respondents who are compliant in conducting monitoring of water quality. This can be attributed to lack of coordination of the schools with the MNWD. There are only six (21.4 percent) school-respondents who have installed rainwater catchment systems in their schools to ensure water supply for proper hygiene and sanitation during emergencies. Installation of rainwater catchment system is not anymore necessary among public elementary schools in Naga City division because the accessibility to regular and ample supply of water in the City is very evident. Jasper et al. [11]. Ensuring ready access to safe drinking water, and hygienic toilets that

offer privacy to users has great potential to beneficially impact children's health.

Table 7. Compliance to DepEd Safety and Security Standard of public elementary schools in Naga City along Sanitary Facilities (N=28)

STANDARD	S %	M %	L %	f	TOTAL %
Conducts daily cleaning and maintenance of toilet and individual handwashing facilities	100	100	100	28	100
Eliminates breeding grounds for mosquitoes in and around the vicinity of schools to prevent vector-borne diseases	100	90	100	27	96.4
Follows proper septage and waste water disposal strictly	100	100	85.7	26	92.9
Posts correct and concise information on proper handwashing and use of toilet facilities	75	90	71.4	22	78.6
Supplies soap and water in individual handwashing stations near toilets	75	60	64.3	18	64.3
Ensures that septic tank is located at least two (2) meters away from the building it serves	75	70	50.0	17	60.7

Table 7 shows that 100 percent of the school respondents have complied in conducting daily cleaning and maintenance of toilet and individual handwashing facilities. While 27 (96.4 percent) out of 28 school-respondents have complied in eliminating breeding grounds for mosquitoes in and around the vicinity of schools to prevent vector-borne diseases and 26 (92.9 percent) of the schools strictly follow proper septage and waste water disposal. The data imply that most schools in Naga City Division are conducting daily cleaning and maintenance of toilets; and provide handwashing facilities for sustainable use. Furthermore, it seems that most public elementary schools in Naga City are strongly committed to protecting school children by removing breeding grounds of mosquitoes in and around the school premises and its vicinity to prevent dengue and other vector-borne diseases. Lastly, the school and the division physical facilities in-charge, strategically plan and monitor the construction of septic and drainage for waste water disposal to prevent contamination of water supply lines. However, 22 (78.6 percent) of the school-respondents post in hand washing stations and comfort rooms correct and concise information on proper handwashing and use of toilet facilities. Eighteen (64.3

percent) school-respondents supply soap and water in individual handwashing station near toilets. Supplying of hand soaps for handwashing entails budget and will add to the expenditures of the schools. Lastly, 17 (60.7%) of the school-respondents ensure that septic tank is located at least 2 meters away from the building it serves. Usmen et al. [12] emphasized that facilities management programs at public schools covering capital improvement projects and facility operations and maintenance functions need comprehensive safety programs to ensure that workers, school staff, and students are provided a safe and healthy environment during all related activities.

Table 8. Compliance to DepEd Safety and Security Standard of Public Elementary Schools in Naga City along Fire Safety

STANDARD	S %	M %	L %	TOTAL f	TOTAL %
The school designates in-charge of fire safety measures	100	100	100	28	100
Attends fire safety education and training	75.0	100	100	27	96.4
Formulates fire safety and controls measures	75.0	100	100	27	96.4
Enforces proper waste management. Clears the school grounds from waste	100	100	92.9	27	96.4
Practices good school keeping.	100	90	100	27	96.4
Conducts regular electrical safety inspection	100	80	71.4	22	78.6
Ensures that doors and windows of classrooms and other school buildings are easy to open	75.0	80	71.4	21	75.0
Implements Kiddie/Junior Fire Marshall	25.0	80	71.4	19	67.9
Ensures the presence of Fire Escape Routes and Exit Paths	25.0	60	71.4	17	60.7

In general, 100 percent of the public elementary schools in Naga City division have complied in designating school in-charge of fire safety measures. Further, 27 (96.4 percent) of the school-respondents have complied with the following guidelines; attending fire safety and trainings, formulating fire safety and control measures, enforcing proper waste management, and in practicing good school keeping. On the other hand, there are 21 (75%) out of 28 school-respondents are complied in fire safety in terms of ensuring that doors and windows of classrooms and other school buildings are easy to open. While 19 (67.9%) school-respondents are implementing kiddie/junior marshalls. Lastly, 17 schools (60.7%) have complied in ensuring the presence of fire escape routes and exit paths which the students and personnel are aware of and clearly marked with readable signage.

Wandong [13] emphasized that fire cannot be avoided, but fire damage can be eased through prevention. Students generally lack the knowledge of fire safety and have a weak consciousness of fire safety, it is the responsibility of the fire army and the whole society to keep the students from the harm of fire and create a harmonious and safe school environment.

Table 9. Compliance to DepEd Safety and Security Standard of Public Elementary Schools in Naga City along Campus Security

STANDARD	S %	M %	L %	TOTAL f	TOTAL %
Hires or requests assistance from LGU or asks volunteers for the security personnel of the school	100	80	100	26	92.9
Ensures that the school has all emergency contact numbers posted in appropriate visible areas within school premises	100	100	85.7	26	92.9
Requires School Disaster Risk Reduction Management team to draft a School Incident Management Plan	100	90	92.9	26	92.9
Requires all visitors to sign in a logbook upon entering and sign out upon leaving the school	100	90	85.7	25	89.3
Ensures that all security personnel are instructed to make periodic checks of all restrooms, staircases, and other areas of the building	100	90	78.6	24	85.7
Constructed a sturdy fence surrounding the school premises	100	90	78.6	24	85.7
Ensures that the school regularly conducts evacuation drills, and students and personnel	100	80	71.4	22	78.6
Requires visitors to seek appointment schedule with notification from the office at the guard house	25.0	90	85.7	22	78.6
Requires all students and personnel to wear ID's and proper school uniform upon entering the school premises	25.0	70	92.9	21	75.0

The findings on campus security revealed that 26 (92.9 percent) of the school-respondents have complied with the guidelines of DepEd on campus security such as; hiring or requesting assistance from LGU or ask volunteers for the security personnel; ensuring that the school has all emergency contact numbers posted in appropriate visible areas within the school premises; and requiring school disaster risk reduction management team to draft a school incident management plan. However, only 22 (78.6 percent) of the school respondents have complied in conducting evacuation drills of students and personnel quarterly and requiring visitors to seek appointment schedule with notification from the principal's office at the guard house. Lastly,

there 21 (75 percent) school-respondents have complied in requiring all pupils and personnel to wear IDs and school uniform upon entering the school premises.

Table 10. Compliance to DepEd Safety and Security Standard of public elementary schools along Building Security

STANDARD	S	M	L	TOTAL	
	%	%	%	f	%
Partitions are from floor to ceiling	100	90	100	27	96.4
Corridor is not less than 1.5 meters	100	90	100	27	96.4
Window panels when opened do not obstruct the corridor	100	90	92.9	26	92.9
Roofing sheets are .40 mm base metal thickness and securely fastened to the roof frames	100	90	92.9	26	92.9
Floors are non-skid finish	100	80	92.9	25	89.3
Complies to the Fire Code of the Philippines	25	40	85.7	17	60.7
Classrooms are provided with a built-in curved chalkboard	75	50	50.0	15	53.6
Classroom has two (2) doors and swings out at 180 degrees.	50	30	14.3	7	25.0

Table 10 shows that in terms of building security requirements, among the 28 school-respondents, 27 (96.4 percent) complied with the partitions of the classroom which are from floor to ceiling and with the measure of corridors not less than 1.5 meters. While 26 (92.9 percent) of the school-respondents have complied with window panels when opened do not obstruct along the corridor and roofing sheets are 40 mm base metal thickness and securely fastened to the roof frames. However, 15 (53.6 percent) school-respondents have complied with the provision of a built-in curved chalkboard in the classrooms and seven (25 percent) complied with the requirement of the classrooms having two doors and swings out at 180 degrees. One of the most effective ways for school designs to become even safer in the future is to foster more effective collaborations among all involved from the outset of the design or building renovation process [14].

In Table 11, among the various factors, adhering to DepEd’s Policies ranked as the topmost concern according to 238 or 88.2 percent of the total respondents; Parents’ involvement came in as second priority (229 or 84.8%); and Pupil’s discipline (217 or 80.4 percent). The respondents seemingly imply that this factor should also be dealt with. While monitoring and evaluation and

Budget allocation are the least factors in facilitating compliance to DepEd’s standards on safety and security services as believed by the respondents with 178 (65.9%) and 158 (58.5%), respectively.

Table 11. Organizational factors that facilitate the compliance to DepEd’s Safety and Security Standards

STANDARD	S	M	L	TOTAL (N=270)	
	%	%	%	f	%
DepEd’s Policies	100	87.3	89.6	238	88.2
Parents’ involvement	100	85.7	83.7	229	84.8
Pupils’ discipline	100	77.8	80.1	217	80.4
Teachers’ efficiency	100	79.4	73.5	205	75.9
Community relations and support	100	73	75	204	75.6
Administrators’ competence	100	73	72.9	200	74.1
Security personnel (school guard)	72.7	76.2	71.9	197	72.9
School DRR Team/SIP Team	72.7	73	67.3	186	68.9
Monitoring and evaluation	72.7	63.5	66.3	178	65.9
Budget Allocation for Safety and Security Services	72.7	61.9	56.6	158	58.5

Organizational support plays a big role in the sustainability of school activities and programs related to safety and security. Establishment of well-understood policies which are disseminated clearly to teachers, parents and students will be more effective in terms of implementation and utilization value. Steinberg et al. [15] noted that relationships that teachers and school personnel foster with students, and the interactions they have with families, play important roles in insulating students from adverse neighborhood conditions and creating safe schooling environments.

Table 12. Community factors that facilitate the compliance to DepEd’s Safety and Security Standards (N=270)

STANDARD	S	M	L	TOTAL	
	%	%	%	f	%
Ordinances	100	76.2	72.4	201	74.4
LGU/BLGU Officials’ competence	72.7	69.8	69.4	188	69.6
Security personnel (barangay police)	63.6	63.5	69.4	183	67.8
Programs/Projects Implementation	90.9	63.5	65.8	179	66.3
LGU/BLGU DRRM Team	72.7	68.3	58.7	166	61.5
Committee on Peace and Order	90.9	53.9	60.7	163	60.4
Community Obedience/Discipline	72.7	50.8	61.7	161	59.6
Monitoring and evaluation	63.6	49.2	56.1	148	54.8
Budget Allocation for Safety and Security Services	72.7	44.4	52.0	138	51.1

Among the factors, more than a great half of the total respondents or 74.4 percent said that ordinances are of great factor in the compliance on safety and security standards. It was followed by LGU/BLGU officials' competence and security personnel (barangay police) 188 or 69.6 percent and 183 or 67.8 percent, respectively of the total number of respondents. Barangay ordinances promote and facilitate peace and order through qualified and skilled barangay police. Community leaders and members have great contribution in the compliance of schools through their active participation in the activities and projects of the elementary school within their barangay. On the other hand, according to the respondents, community obedience, monitoring and evaluation and budget allocation are the least factors which facilitate the compliance to the DepEd's safety and security standards with 161 or 59.6 percent, 148 or 54.8, and 138 or 51.1 percent, respectively. Limited financial resource sometimes hinders the realization of the school goals. The active involvement of the community in securing the safety of the pupils inside and outside the classroom helps achieve the goal of every school to maintain peace and order. The community also plays big responsibility in taking care of the government properties as well as those people who are using these facilities. Everyone is involved in sustaining harmonious relationship with safe environment for all children.

Table 13. Human-induced Safety and Security related issues and concerns experienced by the public elementary schools (N=270)

STANDARD	S	M	L	Total	
	%	%	%	f	%
Classroom accidents	45.5	55.6	63.3	164	60.7
Theft/destruction of school properties	18.2	53.9	51.5	137	50.7
Road accident	54.6	49.2	35.2	106	39.3
Pollution	-	11.1	22.9	52	19.3
Sexual violence	27.3	14.3	18.9	49	18.2
Fire	-	25.4	13.3	42	15.6
Violence among school community	18.2	9.5	13.8	35	12.9
Disease outbreak	18.2	6.3	10.2	26	9.6
Drug related problem	-	3.2	11.2	24	8.9
Shooting/ Stabbing	-	3.2	9.7	21	7.8
Bomb threat/bombing	-	3.2	9.2	20	7.4
Food poisoning	-	6.3	6.6	17	6.3
Kidnapping	-	1.6	5.1	11	4.1
Electrocution	-	4.8	2.6	8	2.9

There were 203 or 75.19 percent of the respondents who stated that classroom accidents are the most

prevalent issue, followed by theft and destruction of school properties according to 137 or 50.75 percent of the respondents. Road accidents were the third main concern according to 106 or 39.26 percent of the respondents. The results imply that classroom accidents are the topmost problems of elementary schools on security and safety since classrooms serve as venue for all learning activities of pupils inside the school. On the other hand, very small percentage of the total respondents have stated that food poisoning with 17 or 6.3 percent, kidnapping with 11 or 4.1 percent, and electrocution with 8 or 2.9 percent are the least problems encountered by the public elementary schools in Naga City Division. Shelton et al. [16] cited that recognizing the patterns of violence at schools, administrators working with students, other school personnel, and community partners may consider more combinations of the safety measures within their institutions together with local resources and services to improve safety and reduce violence.

Table 14. Naturally occurring Safety and Security related issues and concerns experienced by the public elementary schools (N=270)

Standard	S	M	L	Total (n=270)	
	%	%	%	f	%
Typhoons	45.5	73.0	69.4	187	69.3
Flood	-	46.0	70.9	165	61.1
Earthquake	9.1	20.6	22.9	59	21.9
Thunderstorm	9.1	9.5	16.8	40	14.8
Landslide	-	4.8	3.1	9	3.3

Table 14 presents the naturally occurring safety and security related issues and concerns. According to 187 (69.26%) respondents, typhoon is the main concern when it comes to safety and security, and followed by flooding according to 165 or 61.11 percent. While earthquakes, thunderstorms and landslides are of small percentage as to concerns of schools in Naga City Division. These problems are attributed to the location of Naga City which is prone to flooding induced by severe rains made serious by its location at the Bicol River Basin and Mt. Isarog [17].

Table 16 reveals that there is a significant difference on the community and organizational factors that affect the compliance of the safety and security of public elementary schools as denoted by the computed p-value of less than 0.05 alpha level. Results showed that community and organizational factors which affect compliance is highly experienced among small size public elementary schools compared to schools with medium and large size populations.

Table 16. Test of Difference on Compliance, Factors Affecting Compliance and Related Issues when grouped according to School Size

	F-value	P-value	Remarks
Compliance			
School Site	0.39826	.676456	NS
Canteen Services	0.0138	.986291	NS
Water Safety	0.65254	.532609	NS
Sanitary Facilities	0.44168	.651054	NS
Fire Safety	0.99628	.384015	NS
Campus Security	0.06399	.938175	NS
Building Security	0.3402	.715479	NS
Factors			
Community	7.4187	.003101	S
Organizational	6.14021	.006339	S
Human Induced	0.44419.	.644545	NS
Natural Occurring	1.07813	1.07813	NS

Note: NS-Not Significant; S-Significant

Because it is given fact that small schools are more manageable than large schools, compliance to certain standard in terms of compliance to ordinances is much easier to monitor and evaluate the performance. Steinberg et al. [15] emphasized that schools that enroll more students who have struggled in school in the past are more likely to have problems with safety and order.

However, there is no significant difference on the percentage of schools that complied on the safety and security standards of Department of Education as denoted by the computed p-values which are greater than 0.05 alpha level. This signifies that every public elementary school in the area regardless of population size, they can manage and facilitate the safety and security services in an appropriate manner. There are still some areas of improvement that every school has to address to avoid accidents.

CONCLUSION AND RECOMMENDATION

Public elementary schools in Naga City fall under different categories based on the number of its personnel. Most schools exist for 21-40 years. Mostly, schools are located in lowland areas of the city because of the ecological location of the city itself which is mostly lowland. Further, schools allocate funds for safety and security services to protect the personnel and most especially the learners. Awards and recognition are given to the schools which are best implementers of DepEd’s programs.

Most public elementary schools in Naga City Division have complied with DepEd’s safety and security standards. However, there are also small

percentages of compliance of the schools in some guidelines or standards and this can be harmful to the whole school community.

Policies of DepEd, parents’ involvement and pupils’ discipline are viewed by the respondents as very significant factors in addressing issues related to schools’ safety and security. As to community factors, ordinances crafted by the local government unit is the most significant factor that facilitates safety and security of the school children. Public elementary schools in Naga City division are confronted by human-induced and natural-caused safety and security issues and concerns. Development intervention in the form of a training program for teachers and school heads in the implementation of DepEd Orders and Memorandum was crafted.

DepEd officials and school administrators may craft safety and security measures which must be well-disseminated and consistently implemented and strictly observed by the school community members.

New set of awards and recognition for safety and security services may be crafted. Local Government Unit of Naga City may intensify the implementation and enforcement of City ordinances related to safety and security of the school children.

Development intervention in the form of a training program for teachers and school heads relative to the implementation of DepEd Orders and Memoranda must be implemented to improve the compliance of public elementary schools to DepEd’s Safety and Security Standards.

This study is limited to only 28 public elementary schools in the Division of a first class city in the Philippines. Therefore, it cannot be generalized to a larger population in the country. Further research may be conducted to other cities and municipalities to compare the results and how the local government units can be of great help to assist the public elementary schools on their areas.

REFERENCES

- [1] Santiago, M.D. (2004). S.B. No.1566. An Act Establishing Innovative Programs to Provide Safe School Environment. Retrieved on October 9, 2018. Retrieved from: <https://www.senate.gov.ph/lisdata/27832158!.pdf>
- [2] Applebury, G (2018). Why Is School Safety Important, https://safety.lovetoknow.com/Why_is_School_Safety_Important
- [3] Dymont, J. E. & Bell, A. C. (2008). Grounds for movement: green school grounds as sites for promoting physical activity, *Health Education Research*, 23(6), 952–962, <https://doi.org/10.1093/her/cym059>

- [4] DepEd Order No. 65, s. 2009, known as “Implementation of Essential Health Care Program (EHCP) for the School Children” released on June 22, 2009. Retrieved from: <http://www.deped.gov.ph/2009/06/22/do-65-s-2009-implementation-of-essential-health-care-program-ehcp-for-the-school-children/>
- [5] DepEd Educational Manual Facilities Manual, 2010, Revised edition of the 2007 Handbook on Educational Facilities- Integrating Disaster Risk Reduction in School Construction.” Retrieved from: <http://docplayer.net/7391698-Deped-educational-facilities-manual-revised-edition-of-the-2007-handbook-on-educational-facilities-integrating-disaster-risk-reduction-in-school.html>
- [6] DepEd Order No.37, s. 2015, known The Comprehensive Disaster Risk Reduction and Management (DRRM) in Basic Education Framework, released on August 12, 2015. Retrieved from: <http://www.deped.gov.ph/>
- [7] Darling-Hammond, L., Flook, L., Cook-Harvey, C., Barron, B., & Osher, D. (2019). Implications for educational practice of the science of learning and development. *Applied Developmental Science*, 1-44.
- [8] DepEd Order No.8., Series 2007, known as Revised Implementing Guidelines on the Operation and Management of School Canteens in Public Elementary and Secondary Schools, released on February 16, 2007.
- [9] DepEd Order No. 13, s. 2017, known as “Policy and Guidelines on Healthy Food and Beverage Choices in Schools and in DepEd Offices” released on March 14, 2017. Retrieved from: <http://www.deped.gov.ph/2017/03/14/do-13-s-2017-policy-and-guidelines-on-healthy-food-and-beverage-choices-in-schools-and-in-deped-offices/>
- [10] Glariana, C.E. & Solar, N.J.B. (2015). Status of School Safety and Security among Elementary Schools in the Fifth Class Municipality, Asia Pacific Journal of Multidisciplinary Research, 3(5), Part I.
- [11] Jasper, C., Le, T. T., & Bartram, J. (2012). Water and sanitation in schools: a systematic review of the health and educational outcomes. *International journal of environmental research and public health*, 9(8), 2772-2787.
- [12] Usmen, M. A., Baradan, S., & Jayyousi, K. (2002). Safety program guidelines for public school facility construction and operations. *Practice Periodical on Structural Design and Construction*, 7(2), 74-80.
- [13] Wandong, J. (2009). On How to Strengthen Fire Safety in School. *Journal of Huangshan University*, 11(5).
- [14] Anthony, K. H., Johnson, S., Nelson, J. (2016). Maximizing School Safety in Troubled Times: Examine School Building Design to help prevent security problems., *Principal Leadership*, 47-51.
- [15] Steinberg, M. P., Allensworth, E., & Johnson, D. W. (2011). *Student and Teacher Safety in Chicago Public Schools: The Roles of Community Context and School Social Organization*. Consortium on Chicago School Research. 1313 East 60th Street, Chicago, IL 60637.
- [16] Shelton, A. J., Owens, E. W., & Song, H. (2009). An examination of public school safety measures across geographic settings. *Journal of school health*, 79(1), 24-29.
- [17] Barrameda, S. M. (2014). Naga City vulnerable to calamities, WWF study shows. Url: <https://newsinfo.inquirer.net/574414/naga-city-vulnerable-to-calamities-wwf-study-shows>
- [18] Rahman, A., Tosepu, R., Karimuna, S. R., Yusran, S., Zainuddin, A., & Junaid, J. (2018). Personal Hygiene, Sanitation And Food Safety Knowledge Of Food Workers At The University Canteen In Indonesia. *Public Health of Indonesia*, 4(4), 154-161.

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