

EXPLORING THE GAP IN IMPLEMENTING THE SDRRM IN THE PUBLIC ELEMENTARY SCHOOLS

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Abstract

The three pillars serve as the foundation for conducting risk assessments, which are incorporated into the education development plans of regions, divisions, and schools. The objectives of this study are to determine the gap between three pillars and the School Improvement Plan (SIP), to determine the significance of the relationship between the DRRM Framework Pillars and the SIP, and to improve the SIP based on the gap analysis. Similarly, implementation difficulties were also investigated. Results indicate that elementary public schools in San Mateo, Isabela are highly compliant with the Three Pillars as foundation for conducting risk assessments and hindering factors have been identified and must be addressed. The findings of this study will eventually be used to enhance the school's SIP.

Introduction

Human-caused and climate-related disasters are both putting the world's population and efforts toward long-term development at greater danger. This situation must be carefully considered in order to develop catastrophe preparedness and mitigation methods that reduce population exposure and susceptibility in foreign and local contexts. Even if disasters are unavoidable, unsustainable expansion that fails to account for the potential consequences of hazard in a given location often magnifies their scope and intensity. If the community better understands and implements appropriate preventive or mitigation measures, the impacts of such can be minimized.

The Philippines is placed third on the 2018 World Risk Index and ranked 8 in the 2021 World Risk Index as one of the countries most susceptible to natural disasters. Due to its location in the midst of the Pacific typhoon belt and between major tectonic plates, the country faces a variety of natural catastrophes each year, including typhoons, earthquakes, landslides, and volcanic eruptions. In 2010, the Senate and House of Representatives passed RA 10121, also known as the Philippine DRRM Law, to address the country's disaster-prone environment. Section 14 of this Act mandates that the Department of Information (DepEd), the Commission on Higher Education (CHED), and the Technical Education and Skills Development Authority (TESDA) incorporate education about disaster risk into school curricula (RA 10121, 2010). In line with RA 10121, the Department of Education announced the K-12 basic education curriculum in 2013 that included Disaster Readiness and Risk Reduction as a fundamental subject. The course is described as emphasizing the application of scientific knowledge and the resolution of practical problems in a physical setting. (DepEd, 2013) Filipinos must have a solid understanding of the ideas taught in DRRR in order to reduce their susceptibility to a variety of natural and man-made threats.

The education sector belongs to the most vulnerable sector during emergencies. It is among those who most experience the impacts of natural and human-induced hazards caused by the disasters. Through our experience, we know that in a healthy world, disasters rob children of their right to a continuous, standardized basic education. They are risking children's lives, their families and educational staff. Disasters have set back educational-sector investments. Likewise, Philippines is confronted with COVID- 19 pandemic. Educator sector is again confronted with many issues and concerns in the conduct of classes.

Consequently, reducing catastrophe risks is important for the education sector. Achieving the results of the Department of Education (DepEd), namely: access, efficiency and governance. As such, the Department, as a member of the National Council for Disaster Risk Reduction and Management (NDRRMC), has been building education resilience by advancing school safety.

The disasters that occurred in the Philippines prompted DepEd (Department of Education) officials to incorporate disaster risk reduction and management into their curricula. Section 14 of Republic Act 10121 (or the Philippine Disaster Risk Reduction and Management Act of 2010) mandates that the DepEd, among other agencies, incorporate the aforementioned curricula. The DepEd, however, has made DRRM education as an independent subject for the senior high school level. Likewise, pursuant to Republic Act (RA) No. 10121 entitled *The Philippine Disaster Risk Reduction and Management Act of 2010*, which mandates all national government agencies to institutionalize policies, structures, coordination mechanisms and programs with continuing budget appropriation on Disaster Risk Reduction and Management (DRRM) from national to local levels and DepEd Order No. 50, s. 2011 entitled *Creation of Disaster Risk Reduction and Management Office (DRRMO)*, which mandates the said office to initiate and spearhead the establishment of mechanisms which prepare, guarantee protection and increase resiliency of the Department of Education (DepEd) constituents in the face of disaster, the DepEd issues the enclosed Coordination and Information Management Protocols for the schools, schools divisions offices (SDOs) and regional offices (ROs) and coordinators to establish the system of coordination and information management and provide guidance to DepEd field offices, schools and DRRM coordinators on their respective roles and functions relative to DRRM implementation. Thus, DO 21, s. 2015 – Disaster Risk Reduction and Management Coordination and Information Management Protocol was issued.

The three pillars form the bases on the conduct of risk assessment which are incorporated in the education development plans of the regions, divisions, as well as in the school improvement plans. The current implementation of DRRM in the DepEd Elementary Schools in Isabela is also consistent with various regulatory and statutory bodies' issuances. The DRRMO was established, and all activities ordered were carried out properly. However, its implementation must be evaluated to determine whether it complies with DepEd regulations. Thus, identifying deficiencies will undoubtedly help to improve the DRRM's programs and activities in public schools particularly the gap in the implementation of the three pillars.

This study's objectives are to determine the gap between three pillars vice School Improvement Plan (SIP), ascertain the significant relationship between the DRRM Framework Pillars and the School Improvement Plan, and improve the SIP based on the gap analysis. Similarly, problems encountered during implementation were examined. Eventually, the findings of this study will be utilized to improve school's SIP.

Methodology

The three pillars of the Comprehensive DRRM in Basic Education Framework (CDRRM-BEF) served as a guide for the researchers in determining if the SIP of the public schools is in accordance with or compliant with the framework. The researchers sought the SIP of public elementary schools of the Department of Education specifically San Mateo North District and San Mateo South District. The SIP will be assess if elementary schools are complying of what is required by CDRRM-BEF. In order to determine the significance of the relationship between the DRRM Framework Pillars and the School Improvement Plan, the researchers utilized secondary data.

In order to triangulate the data reported in the SIP and Accomplishment Report, responses from School Administrators, SDRRM Coordinators, and the YES-O President or Pupil Government President are also gathered. A Survey Questionnaire was used to gather information from respondents. This questionnaire is based on the four-point Likert scale instrument developed by the DepEd in its School Disaster Risk Reduction and Management Manual (2012).

The researchers made used of the DepEd Gap Analysis template. Secondary data was taken from the SIP of schools vice Accomplishment Report.

The three pillars of the Comprehensive DRRM in Basic Education Framework

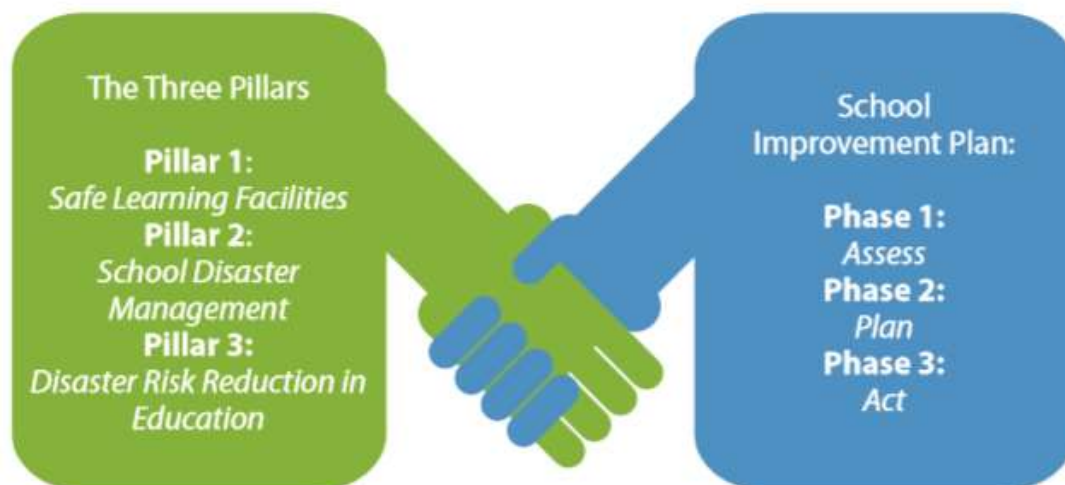


Figure 1. Relationship of DRRM Framework Pillars to the School Improvement Plan

Pillar 1. Safe Learning Facilities

This pillar refers to the physical and other associated school structures. It also includes the creation of temporary learning spaces that can be utilized during possible displacement caused by natural catastrophes and/or man-made emergencies. Here, education authorities, architects, engineers, and school community members engage in the safe site selection, design, construction, and maintenance of school structures and ensure the facility's safe and continuing accessibility (DO 37 s 2015).

Pillar 2. School Disaster Management

This pillar refers to the establishment of organizational support structures such as the DRRM Service and DRRM Coordinators in all also cover the setting up of systems, processes and standards to operationalize the four (4) thematic areas in the context of basic education. (DO 37 s 2015).

Pillar 3. Disaster Risk Reduction in Education

This refers to the integration of DRRM in the formal and non-formal school curricula and in extracurricular activities. It should also provide the necessary material support. This covers building the capacity and skills of learners and personnel, particularly teachers. (DO 37 s 2015).

Results and Discussion

GAP Analysis**Table 1. Pillar 1-Safe Learning Facilities**

Aspect of Safe Learning Facilities	Mean rating	Qualitative description
1. The school is accessible to all, regardless of physical ability.	3.72	Highly complied
2. The school's learning environment is marked by visible boundaries and clear signs, as appropriate.	3.69	Highly complied
3. The school grounds have adequate space for classes and administration, recreation and sanitation facilities.	3.77	Highly complied
4. The school ensures the class space and seating arrangements are according to the prescribed ratio of space per learner and teacher, at all grade levels, in order to facilitate participatory methodologies and learner-centered approaches.	3.72	Highly complied
5. The school has linkages/connections as communities participate in the construction and maintenance of the school.	3.77	Highly complied
6. The school's basic health and hygiene are promoted in the learning environment.	3.87	Highly complied
7. The school's sanitation facilities are provided with adequacy, taking into account age, gender and special education needs and considerations.	3.77	Highly complied
8. The school's quantities of water for safe drinking and personal hygiene are adequate and available at the learning site.	3.72	Highly complied
9. The school facilitates the assessment of school electrical system to make necessary repairs and/or upgrades to prevent fire accident.	3.74	Highly complied
10. The school initiates repair of minor classroom damages such as broken windows, doors, blackboards, roofs, etc.	3.72	Highly complied
11. The school installs appropriate and available suppression equipment or resource such as fire extinguishers, water source, and other indigenous materials.	3.72	Highly complied
12. The school ensures that corridors and pathways are unobstructed (walang harang) and that all sharp, protruding objects which may cause harm to students are removed.	3.82	Highly complied
13. The school cleans and clears the drainage to prevent clogging. Cover drainage canals and provide necessary warnings.	3.77	Highly complied
14. The school provides barrier and post safety signage for ongoing construction, unfinished, damaged and condemned buildings.	3.64	Highly complied

15. The school secures cabinets and drawers and ensure that heavy objects are below head level.	3.72	Highly complied
16. The school posts safety measures in laboratories and workshops.	3.77	Highly complied
17. The school prunes/trimms trees to avoid entanglements.	3.82	Highly complied

As shown in Table 1, there is a high level of compliance in the aspect of safe learning facilities as perceived by the School DRRM Coordinators and the different School Heads. The School DRRM Coordinators have given the least mean rating (3.53) on the visible boundaries that marked the school's learning environment and on the appropriate and available suppression equipment in the school. While the highest mean rating (3.80) is on the promotion of basic health and hygiene in the learning environment, unobstructed corridors and pathways, and in trimming of trees in the school premises. For the School Heads, the lowest mean rating (3.73) is noted on the accessibility of the school regardless of physical ability, provision of barriers and posting of safety signage, and fix construction of cabinets and drawers below head level. The highest mean rating (4.00) is on the adequate space for classes, administration, recreation and sanitation facilities and on the safety measures posted in laboratories and workshops. According to the SPG/YES Presidents, there is moderate compliance (3.13) in these aspects: (a) The school grounds have adequate space for classes and administration, recreation and sanitation facilities; (b) The school ensures the class space and seating arrangements are according to the prescribed ratio of space per learner and teacher, at all grade levels, in order to facilitate participatory methodologies and learner-centered approaches; (c) The school has linkages/connections as communities participate in the construction and maintenance of the school; (d) The school initiates repair of minor classroom damages such as broken windows, doors, blackboards, roofs, etc; (e) The school ensures that corridors and pathways are unobstructed (walang harang) and that all sharp, protruding objects which may cause harm to students are removed; and (f) The school secures cabinets and drawers and ensure that heavy objects are below head level. On the other hand, the highest mean compliance rating (4.00) is noted in the following: (a) The school's basic health and hygiene are promoted in the learning environment; (b) The school's sanitation facilities are provided with adequacy, taking into account age, gender and special education needs and considerations; (c) The school facilitates the assessment of school electrical system to make necessary repairs and/or upgrades to prevent fire accident; (d) The school installs appropriate and available suppression equipment or resource such as fire extinguishers, water source, and other indigenous materials; (e) The school cleans and clears the drainage to prevent clogging. Cover drainage canals and provide necessary warnings; and (f) The school posts safety measures in laboratories and workshops.

The result shows that authorities in the basic education sector have made progress in building resilience in offices and schools, and making sure that quality education is always provided and prioritized even in the face of disasters and emergencies, even if there is a disaster or emergency in consonance with DepEd Division Order 37, s. 2015 or The Comprehensive Disaster Risk Reduction and Management (DRRM) in Basic Education Framework.

Table 2. Pillar 2 – School Disaster Management

Aspect of School Disaster Management	Mean rating	Qualitative description
1. The school posts a directory of emergency contact numbers of relevant government agencies and offices in various areas of the school. Establish early warning mechanisms and inform all students and personnel on this.	3.79	Highly complied
2. The school equips with first aid kits, flashlights, megaphones, and other necessary supplies that may be needed in times of emergencies. Ensure that these items can be easily located and accessed.	3.54	Highly complied
3. The school identifies alternative sources and/or maintain supply of drinking water within the school.	3.74	Highly complied
4. The school ensures that students, teachers, and personnel have identification cards with relevant information.	3.64	Highly complied
5. The school creates database of student and their family contact details.	3.85	Highly complied
6. The school secures vital/important school records and store them in safe locations.	3.90	Highly complied
7. The school has a coordination with barangay officials on pedestrian safety for students.	3.82	Highly complied
8. The school documents any accidents experienced by students and personnel within the school to improve prevention and mitigation measures.	3.79	Highly complied
9. The school prepares an evacuation/exit plan and directional signages on every floor of the building.	3.82	Highly complied
10. The school identifies evacuation areas and classrooms that can be used as temporary shelters during disasters and emergencies.	3.82	Highly complied

Table 2 shows that there is a high compliance rating in all the aspects of school disaster management. The School DRRM Coordinators have given an average rating of 3.47 on the supply and accessibility of first aid kits, flash lights, megaphones, and other necessary supplies that may be needed in times of emergencies. While the highest mean rating (3.87) is on the security of important school records, school's coordination activities with barangay officials on pedestrian safety of students, and identification of evacuation areas that can be used as temporary shelters during disasters and emergencies. For the different School Heads, the least mean compliance rating (3.60) is on the assurance that students, teachers, and school personnel have identification cards complete with relevant information; and the highest mean compliance rating (4.00) is on the school's preparation of evacuation/exit plan and directional signage in all building floors. The SPG/YES Presidents have given the highest mean compliance rating of 4.00 in all aspects of school disaster management except in the following: (a) The school identifies evacuation areas and classrooms that can be used as temporary

shelters during disasters and emergencies (3.67); (b) The school secures vital/important school records and store them in safe locations (3.80); and (c) The school prepares an evacuation/exit plan and directional signage on every floor of the building (3.93).

The high compliance rate in all facets of school disaster management is indicative of the existence of organizational support mechanisms such as the DRRM Service and DRRM Coordinators in the DepEd San Mateo North District. The establishment of systems, processes, and standards for operationalizing the four (4) thematic areas within the context of basic education (DO 37 s 2015) is carried out properly.

Table 3. Pillar 3 – DRR in Education

Disaster Risk Reduction in Education	Mean rating	Qualitative description
1. The school inform students about the various hazards faced by the local community.	3.77	Highly complied
2. The school allows teachers to undergo trainings about hazards and risk reduction.	3.79	Highly complied
3. The school instruct students to be aware of the things that can be done to reduce risks at home.	3.82	Highly complied
4. The school instruct students to be aware of the things that can be done to reduce risks at school.	3.85	Highly complied
5. The school instructs students to be aware of the things that can be done to reduce risks in the community.	3.82	Highly complied
6. The school encourages the people to participate in the efforts at home and in the community to reduce risks.	3.82	Highly complied
7. The school encourages the students to be familiar with and able to carry out safe building evacuation procedures in the incidence of fire (don't talk, don't run, don't push, don't go back)	3.77	Highly complied
8. The school encourages the students to be familiar with and are able to assemble in the designated safe assembly area or safe grounds.	3.77	Highly complied
9. The school encourages the students to be familiar with and are able to participate in the “silent lockdown procedure.”	3.77	Highly complied
10. The school encourages students to be familiar with and are able to participate in “shelter-in-place procedure.”	3.72	Highly complied
11. The school encourages students to be familiar with and ready to comply with the “safe student-family reunification procedures.”	3.79	Highly complied
12. The school encourages family of each student to be familiar with and ready to comply with the “safe student-family reunification procedures.”	3.79	Highly complied

13. The school integrates some inputs of the risk reduction evaluation process during the next drill practices.	3.77	Highly complied
14. The school considers the individual needs and the safety of young children, girls, and persons with disabilities during the planning.	3.85	Highly complied

In Table 3, the different School DRRM Coordinators and School Heads have given a high compliance rating in all aspects of disaster risk reduction in education; that is, an average of 3.67 to 3.97 and 3.80 to 3.87, respectively. However, according to the different SPG/YES Presidents, there is a slight (2.27) to moderate compliance level (3.13) in all aspects listed in Table 3. The School DRRM Coordinators perceived that there is high compliance (3.93) in the aspect of how the school considers the individual needs and the safety of young children, girls, and persons with disabilities during the planning; but the SPG/YES Presidents stated that there is only moderate compliance (3.13) in this aspect. Further, the different SPG/YES Presidents remarked that there is slight compliance (2.27) in these aspects: (a) The school encourages students to be familiar with and are able to participate in “shelter-in-place procedure.”; (b) The school encourages students to be familiar with and ready to comply with the “safe student-family reunification procedures.”; and (c) The school integrates some inputs of the risk reduction evaluation process during the next drill practices.

GAP Analysis on School Performance in the Implementation of SDRRM

The following were identified as inhibiting factors in the implementation of SDRRM.

1. Lack of learners interest
2. Poor and unsafe learning environment.
3. Lack of teacher’s trainings and seminars.
4. Pupils’ poor study habits and lack of interest of the pupils.
5. Lack of Learning Resources
6. Uninterested parents and stakeholders.
7. Not fully informed with the different DepEd’s programs and projects.
8. Lack of financial resources

Conclusion

In the light of the findings, the following were concluded;

1. Elementary public schools in San Mateo, Isabela are highly compliant with the Three Pillars as bases for conducting risk assessments, which are incorporated in the education development plans of the regions, divisions, and school improvement plans.
2. Despite high compliance with the three pillars as bases for conducting risk assessments, which are included in the education development plans of the regions, divisions, and school improvement plans, inhibiting factors have been found and must be addressed.

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