

IMPLEMENTATION OF THE SCHOOL DISASTER RISK REDUCTION MANAGEMENT IN PUBLIC ELEMENTARY SCHOOLS IN REGION VIII

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Abstract

This study assessed the implementation of School Disaster Risk Reduction Management (SDRRM) in Public Elementary Schools in Region VIII. Specifically, it determined SDRRM Team profile as to sex, civil status, educational attainment, position in the SDRRM Team, DRRM trainings attended, and membership in any DRRM- related organizations. It determined the level of implementation of SDRRM as assessed by SDRRM Team. Differences between assessments of SDRRM Team were computed on the level of implementation. Furthermore, the profile of the respondent's relationship on the level of implementation of SDRRM was also determined. The descriptive-correlation method of research was employed in the study. To be able to analyze the respondents' profiles; counts and percentages were used. The mean scores were analyzed to determine the level of implementation of SDRRM. As to the significant difference among the ratings on the implementation level of SDRRM team, T-test were used. The use of Point- biserial correlation, Pearson Product Moment Correlation Coefficient, and Eta Correlation if there was a significant relationship were applied as well. The recommendations are herewith presented: 1. SDRRM Team must undergo capability enhancement trainings to equip DRRM Knowledge and skills; 2. improve the level of implementation of SDRRM in the remaining thirteen (13) specific activities from moderately to highly implemented by conducting trainings; 3. encourage teachers to pursue further studies in order to equip DRRM knowledge and skills; 4. ensure coordination of SDRRM team with Local Government Units (LGU) and Health Units on matters relating to COVID-19; and 5. SDRRM development plan was designed to improve the implementation of SDRRM in public elementary schools in Region VIII.

Keywords: Disaster preparedness, Disaster response, Disaster relief and rehabilitation

Introduction

Disasters are caused by natural or man-made occurrences where people encounter serious damage and experience loss of lives and belongings. They cause interruption to the people's social structure and affected people's essential roles (Mallari, 2018). From school year 2009 to 2014, the most common disasters affecting a plethora of learning environments were tropical typhoons, quakes, floods, and volcanic activity. The prolonged use of schools as evacuation shelters, the school damages, loss of equipment, loss of instructional resources, or even the absence of teachers

were some of the common results of disasters. They also led to the decline of quality education as it caused a number of students to delay their progress. Clearly, schools and learners are among those who suffer a lot during extreme disasters. (DepEd Manual 2016).

The upgrading of the comprehensive DRRM in the Department of Education, DepEd Order Number 50 series of 2011 and DepEd Memorandum Number 11 series of 2015, institutionalized DRRM in the basic education system. It is composed of SDRRM Chairman, SDRRM Co-Chairman, Early Warning Team, Disaster Management, and Relief Services, Camp Management and Relief Services, Damage Assessment and Head Analysis, and Recovery and Rehabilitation. Here, the SDRRM team works in implementing Disaster Risk Reduction Management (DRRM) in the school.

Dep Ed Order Number .23, series of 2015 entitled “Student-Led School Watching and Hazzard Mapping”, instructed the SDRRM Team to engage learners in identifying different types of hazards and vulnerabilities in school. Similarly, DepEd Order Number 27, series of 2015 entitled “Promoting Family Earthquake Preparedness”, by the Department of Education, also instructed the SDRRM Team to conduct the DRRM activities such as earthquake drills, Early Warning System (EWS), and coordinate with MDRRM for technical help. With similar intentions, the SDRRM Team is tasked to conduct an advocacy campaign along with the importance of DRRM in school and maintain connections with local, national, and other sponsors via the conduct of “Brigada Eskwela” campaign, DO 41.s.2015.

However, little attention to DRRM programs and activities has been given to the learners by the education sector, especially to learners who are more vulnerable to damage, suffering, injuries, loss of academic performance, and even death. The research gap in terms of increased knowledge and understanding of disaster risk reduction (DRR) remains an enormous challenge to the SDRRM Team. In this regard, the study assessed the level of implementation of SDRRM in public elementary schools in Region VIII as well as the profile of the SDRRM Team which identified and correlated to the level of implementation of SDRRM.

Again, the study aims to assess the level of implementation of the School Disaster Risk Reduction Management in Public Elementary Schools in Region VIII. Following that, it addresses the following questions:

1. What are the characteristic profiles of the SDRRM Team in terms of:
 - 1.1 Age
 - 1.2 Sex
 - 1.3 Civil Status
 - 1.4 Educational Attainment
 - 1.5 Position in the SDRRM Team
 - 1.6 Number of Trainings Attended Related to DRRM
 - 1.7 Membership in any DRRM Related Organization?
2. What is the implementation level of the School Disaster Risk Reduction Management as assessed by the SDRRM Team in terms of the following;
 - 2.1 Program Resources
 - 2.2 Disaster Preparedness;
 - 2.3 Disaster Response;
 - 2.4 Disaster Relief and Rehabilitation?
 - 2.5 Program Activities
 - 2.6 Being a Disaster Manager: Understanding Key Terms;

- 2.7 Component of Disaster Management;
 - 2.8 Introduction to Disaster Management;
 - 2.9 Specific Mitigation and Risks
 - 2.10 Preventing Ordinary Man-Made Calamity?
3. Is there a difference in the assessment of the SDRRM Team on the level of implementation of the School Disaster Risk Reduction Management by profile variables?
 4. Are the profile of the SDRRM Team and the level of implementation of the School Disaster Risk Reduction Management related?
 5. Based on the outcomes of the study, What SDRRM Development plan may be proposed?

Methodology

A Correlational Descriptive Design of Research is applied in this study. Evaluative and Correlational analyses were used to determine the profile of the SDRRM Team, the difference in the level of implementation of SDRRM among the team, the relationship of profile variables, and the level of implementation of SDRRM were determined.

The respondents were 469 SDRRM respondents from 67 central schools. The 67 central schools were chosen from a total of 207 central schools in Region VIII via stratified random sampling, with the 13 schools' divisions as strata. The 67 selected central schools have seven (7) members of the SDRRM Team, yielding the sample size of 469 respondents as previously indicated.

A formal letter of request has been written by the researcher to the School Division Superintendents of the 13 divisions in Region VIII. Upon approval, the research instruments were sent to the different central schools through e-mails and personally distributed to every central school. After the SDRRM Team answered the survey questionnaires, all questionnaires have been collected by the researcher. Upon retrieval of the survey questionnaires, data has been logically collated.

In the spirit of spreading the culture of research to provide quality service to our stakeholders, the SDRRM Team has been assured that the findings of the study will be treated with confidentiality and solely used for research work.

The SDRRM Team profile was analyzed using frequency tally and percentages. To compute the response on the extent of implementation of School Disaster Risk Reduction Management assessed by SDRRM Team, mean was used. To test if there is a difference in the ratings given by the SDRRM Team on the level of implementation of SDRRM, the t-test was used for two independent samples. And if there is a relationship between the profile of the SDRRM Team on their ratings on the level of implementation of the SDRRM and the use of Point- biserial correlation, Pearson Product Moment Correlation Coefficient, and Eta Correlation were deemed important.

Results and Discussions

Table 1. Profile of the SDRRM Team

Variable	Frequency	Percentage
Age		
35 and Below	181	38.59
36 – 50	261	55.65
51 and Above	27	5.76
Sex		
Male	130	27.72
Female	339	72.28
Civil Status		
Single	87	18.55
Married	351	74.84
Separated	3	0.64
Widower	28	5.97
Educational Attainment		
Bachelor's Degree	27	5.76
Bachelor's Degree with Master's Units	216	46.06
Master's Degree	160	34.12
Master's Degree Holder with Doctoral Units	52	11.09
Doctorate	14	2.99
Position in SDRRM Team		
SDRRM Chairman	67	14.29
SDRRM Co-chairman	67	14.29
Early Warning Team	67	14.29
Disaster Management and Relief Services	67	14.29
Camp Management and Relief Services	67	14.29
Damage Assessment and Head Analysis	67	14.29
Recovery and Rehabilitation Services	67	14.29
Number of Disaster Risk Reduction Management (DRRM) Trainings Attended		
10 and Above	77	16.42
7 – 9	28	5.97
4 – 6	114	24.31
1 – 3	250	53.30
Membership in any DRRM related Organization		
GSP Coordinator	57	12.15
BSP Coordinator	51	10.87
Brigada Eskwela Coordinator	49	10.45
SPG Coordinator	52	11.09
Gulayan sa Paaralan Coordinator	61	13.01
LGU Emergency Responders	61	13.01
Emergency Communication	72	15.35
Volunteer Barangay DRRM Team	65	13.86
Kalasag Coordinator	1	0.21

Presented in Table 1 is the profile summary of the SDRRM Team. The SDRRM respondents are mostly 36 to 50 years old (55.65 percent); the majority are females (72.2 percent); married (74.84 percent); most (44.06 percent) have obtained master's degree; have a (53.30 percent) training on DRRM; most (13.86 percent) are members of Barangay DRRM Team, and (14.29 percent) which are equally distributed across the SDRRM position.

Table 2. Level of Implementation of School Disaster Risk Reduction Management
In terms of Disaster Preparedness

	Mean	Interpretation
Has conducted trainings in compliance with DepEd issuances and with the role and functions of each member are understood and followed.	3.33	Moderately Implemented
Has conducted information dissemination and advocacy campaign.	3.76	Highly Implemented
Has improved alertness of the significance of DRR	3.79	Highly Implemented
Has assessed the needs of the faculty and community in planning for the Disaster Risk Reduction.	3.45	Highly Implemented
Has attended and participated in regular and emergency meetings.	3.37	Moderately Implemented
Has established and maintained linkages with local/ national/ international agencies and other stakeholders.	3.45	Highly Implemented
Has developed Disaster Risk Reduction Plan, including hazard assessment.	3.66	Highly Implemented
Has based the program on the worst-case scenario.	3.39	Moderately Implemented
Has involved the community and other stakeholders in the preparation, implementation, and monitoring of the program.	3.55	Highly Implemented
Has conducted drills/ dry runs and critiques in accordance with the program.	3.85	Highly Implemented
Overall Mean	3.56	Highly Implemented

As shown in Table 2, the respondents assessed the SDRRM implementation in the region in terms of Disaster Preparedness as highly implemented with an overall mean of 3.56. This implies that the SDRRM Team in Region VIII are directly involved in the disaster preparedness program.

Further, the present study yielded results similar to that of Cubillas (2018) which indicated that some disaster preparedness components are only fairly implemented or practiced. But the present findings showed a lesser extent of implementation of disaster preparedness activities than those of Corpuz (2019). Considering these findings, it is important that schools strive to implement equally and at the highest level as much as possible all components or dimensions of disaster preparedness. In the case of the present study, the schools involved should heighten the conduct of trainings that are in accordance with the issuances of the Department of Education, as well as require DRR focal persons to regularly attend both scheduled and emergency meetings, as disasters can always claim lives, especially when these suddenly strike and everyone in the school is not prepared.

As shown in Table 3, the respondents assessed the SDRRM implementation in the region in terms of disaster response as highly implemented with an overall mean score of 3.57. This implies that the SDRRM Team in Region VIII is directly involved in the disaster response program.

The findings of this study are in agreement with those of Cubillas (2018) and Ecolin-Campilla (2016) which indicated that several measures under disaster response were fairly practiced or implemented. Moreover, the present findings suggest the need to prioritize the organization of a unit of trained staff for the handling of local damage evaluation and need analysis.

Table 3. Level of Implementation of School Disaster Risk Reduction Management in terms of Disaster Response

	Mean	Interpretation
Has organized a unit that conducts local damage assessment and need analysis.	3.31	Moderately Implemented
Has established an Early Warning System like Announcement Board for weather conditions, bells, emergency indicators and the like)	3.57	Highly Implemented
Is manned by trained personnel for disaster risk reduction.	3.30	Moderately Implemented
Has maintained close coordination with local DRRM Council on response needs, among others.	3.52	Highly Implemented
Has organized school DRRM team to support the response measure.	3.73	Highly Implemented
Has ensured the application of Executive Order No. 66 s, 2012 which is the Postponement of Classes and Work in Administration Agencies because of Storms, Floods, other, and Calamities.	3.87	Highly Implemented
Has provided assistance if necessary.	3.54	Highly Implemented
Has prepared and submitted reports on the effects of any hazards.	3.90	Highly Implemented
Is participated by NGOs and other stakeholders.	3.45	Highly Implemented
Has monitored the effects of threats and the school as a clearing hub.	3.55	Highly Implemented
Overall Mean	3.57	Highly Implemented

Table 4. Level of Implementation of School Disaster Risk Reduction Management in terms of Disaster Relief and Rehabilitation

	Mean	Interpretation
Has provided relief and rehabilitation services immediately after the disaster.	3.13	Moderately Implemented
Has tracked all school personnel during a disaster and/ or emergencies.	3.66	Highly Implemented
Has trained the members technically to administer and coordinate post-disaster relief and rehabilitation.	3.03	Moderately Implemented
Has facilitated immediate resumption of classes to track learners.	3.64	Highly Implemented
Has coordinated with NGOs, GOs, and local and foreign agencies for rehabilitation assistance when needed.	3.24	Moderately Implemented
Has conducted a quick evaluation of damages and yielded RADAR within 72 hours.	3.88	Highly Implemented
Has monitored interventions on school rehabilitation and school recovery.	3.48	Highly Implemented
Has identified Temporary Learning Spaces and other modes of teaching.	3.37	Moderately Implemented
Has evacuation center.	3.48	Highly Implemented
Has tapped communities for food and volunteer rehabilitation services.	3.09	Moderately Implemented
Overall Mean	3.40	Moderately Implemented

As revealed in Table 4, the overall mean for SDRRM in terms of disaster relief and rehabilitation is 3.40, indicating that this area of SDRRM is moderately implemented. This implies that the disaster relief and rehabilitation program is not yet fully programmed and implemented by SDRRM Team in Region VIII.

In comparison with the study of Cubillas (2018) and Ecolin-Campilla (2016), the present study found a lesser extent of implementation of half of the disaster relief and rehabilitation activities and measures. The present findings call for augmentation of relief and rehabilitation

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services, training pertaining to the technical aspects of disaster relief and rehabilitation, and coordination with both government and non-government agencies for assistance.

Table 5. Level of Implementation of School Disaster Risk Reduction Management in terms of “Being a Disaster Manager”

	Mean	Interpretation
Has provided comprehensible knowledge on DRR, particularly to the people in high-risk zones.	3.40	Moderately Implemented
Has assessed human resources skills for DRR.	3.30	Moderately Implemented
Has implemented plans to reduce vulnerabilities.	3.46	Highly Implemented
Has included the participation of teachers, school personnel, parents, students, and communities/ barangays concerning disaster risk reduction measures.	3.76	Highly Implemented
Has identified human resources which aims to ensure the execution of the program.	3.60	Highly Implemented
Overall Mean	3.50	Highly Implemented

As can be gleaned from Table 5, the overall mean is 3.50, indicating that this area of SDRRM is highly implemented.

This implies that the SDRRM team put greater focus on encouraging teachers, school personnel, parents, students, and the community to participate in the SDRRM activities. Campilla (2016) recommends a well-managed development plan organized by DepEd in which the DRRM programs and activities should be planned, formulated, and applied in order to increase the skills of administrators in administering the said program inside and outside the school.

Table 6. Level of Implementation of School Disaster Risk Reduction Management in terms of Components of Disaster Management

	Mean	Interpretation
Has anticipated disaster and the cause-effect relationship by each type of event.	3.43	Highly Implemented
Has provided accurate information and assessment.	3.54	Highly Implemented
Has effective leadership and discipline in handling relief and disaster management.	3.48	Highly Implemented
Has decreased the vulnerability (increase the resiliency) of the society to future events.	3.42	Highly Implemented
Has provided educators with the capacity to administer psychosocial activities.	3.33	Moderately Implemented
Overall Mean	3.44	Highly Implemented

As shown in Table 6, overall the activities under components of disaster management obtained a mean of 3.44, signifying that these activities were highly implemented. This implies that the SDRRM Team in Region VIII was directly involved in Components of Disaster Management activities.

While the study of Ecolin-Campilla (2016) found a greater extent of the practice of providing psychosocial support for the victims of disaster, the present study only shows a moderate level of practice. It is important to emphasize that experiencing a disaster is a traumatic life event that does not only inflict physical harm but also emotional damage which could potentially lead to anxiety and depression. Schools should also look into this aspect by designating qualified personnel to manage the provision of psychosocial support to student-victims.

Table 7. Level of Implementation of School Disaster Risk Reduction Management in terms of Introduction to Disaster Management

	Mean	Interpretation
Has identified health and safety hazards.	3.60	Highly Implemented
Has provided security of food to the communities.	3.43	Highly Implemented
Has promoted regular disaster preparedness exercises	3.63	Highly Implemented
Has integrated DRR into school programs and school improvement plans (SIP)	3.84	Highly Implemented
Has a lot of co-curricular activities on DRR.	3.69	Highly Implemented
Overall Mean	3.64	Highly Implemented

As a whole, Table 7 is gauged as highly implemented, as evidenced by a mean of 3.64. This implies that the SDRRM Team in Region VIII is directly involved in Introduction to Disaster Risk Management activities.

Table 8. Level of Implementation of School Disaster Risk Reduction Management in terms of Specific Hazards and Mitigation

	Mean	Interpretation
Has developed hazard mapping; knowing which hazards and risks the school is exposed to.	3.82	Highly Implemented
Has involved communities in policymaking in order to ensure that students are secure and safe.	3.66	Highly Implemented
Has conducted quarterly preparedness for earthquakes, fire, and floods, among others.	3.72	Highly Implemented
Has provided programs and activities in order to promote protection and safety to educators and learners.	3.64	Highly Implemented
Has assessed routes leading school as safe and secure to all.	3.63	Highly Implemented
Total Mean	3.69	Highly Implemented

As shown in Table 8, the overall mean of the indicators is 3.69 which indicates that at large, the activities outlined by these indicators were highly implemented. This implies that the SDRRM Team in Region VIII is directly involved in Specific Hazards and Mitigation activities.

Table 9. Level of Implementation of School Disaster Risk Reduction Management in terms of Preventing Common Man-made Disaster

	Mean	Interpretation
Has improved emergency signals, alarms, and weather advisories for preparedness.	3.69	Highly Implemented
Has promoted basic hygiene and well-being in the school.	3.85	Highly Implemented
Has adequate safe water in the school.	3.61	Highly Implemented
Has addressed Nutrition Program.	3.77	Highly Implemented
Has provided health services that considered the following: gender, age, and learners with special needs.	3.74	Highly Implemented
Overall Mean	3.73	Highly Implemented

It is depicted in Table 9 that the overall mean for *preventing common man-made disasters* is 3.73. This implies that the SDRRM Team in Region VIII is directly involved in Common Man-made activities.

Table 10. ANOVA Test for the Difference in the Level of Implementation of SDRRM by Age Group

Variables	F -value	p-value	Interpretation
Disaster Preparedness	0.398	0.672	Not Significant
Disaster Response	1.028	0.359	Not Significant
Disaster Relief & Rehabilitation	0.658	0.519	Not Significant
Being a Disaster Manager	0.206	0.814	Not Significant
Component of Disaster Management	0.259	0.772	Not Significant
Introduction to Disaster Management	0.870	0.420	Not Significant
Specific Hazards and Mitigation	0.757	0.470	Not Significant
Preventing Man-made Disaster	1.112	0.330	Not Significant

The difference in the Assessment of SDRRM Team on the Level of Implementation of School Disaster Risk Reduction Management by Profile Variables. As presented in Table 10, a one-way Analysis of Variance (ANOVA) showed no significant difference in the level of implementation of each SDRRM area when categorized corresponding to their group age as indicated by their p-values on which are all greater than 5 % level of significance. This signifies that the same level of implementation of each SDRRM area was perceived by the respondents grouped by age.

Table 11. Test for the Difference in the Level of Implementation of SDRRM by Sex

Variables	t-value	p-value	Interpretation
Disaster Preparedness	2.346	0.126	Not Significant
Disaster Response	2.020	0.156	Not Significant
Disaster Relief and Rehabilitation	0.821	0.365	Not Significant
Being a Disaster Manager	1.672	0.197	Not Significant
Component of Disaster Management	0.880	0.349	Not Significant
Introduction to Disaster Management	1.028	0.311	Not Significant
Specific Hazards and Mitigation	1.132	0.288	Not Significant
Preventing Man-made Disaster	1.138	0.287	Not Significant

As shown in Table 11, a t-test for independent groups revealed that there is no significant difference in the level of implementation of each SDRRM area when the respondents are categorized corresponding to sex, as evidenced by their p-values which are all higher than 5% significance level. This signifies that the same level of implementation of each SDRRM area as perceived by the respondents grouped by sex.

Table 12. ANOVA Test for the Difference in the Level of Implementation of SDRRM by Civil Status

Variables	F-value	p-value	Interpretation
Disaster Preparedness	0.610	0.609	Not Significant
Disaster Response	0.931	0.426	Not Significant
Disaster Relief and Rehabilitation	0.214	0.887	Not Significant
Being a Disaster Manager	0.137	0.938	Not Significant
Component of Disaster Management	0.138	0.937	Not Significant
Introduction to Disaster Management	0.277	0.842	Not Significant
Specific Hazards and Mitigation	0.263	0.852	Not Significant
Preventing Man-made Disaster	0.464	0.707	Not Significant

As presented in Table 12, a one-way Analysis of Variance (ANOVA) revealed no significant difference level of implementation of each SDRRM area when the respondents are

categorized according to civil status, as evidenced by their p-values which are all higher than 5% significance level. This signifies that the same level of implementation of each SDRRM area as perceived by the respondents grouped by civil status

Table 13. ANOVA Test for the Difference in the Level of Implementation of SDRRM by Educational Attainment

Variables	F value	p-value	Interpretation
Disaster Preparedness	2.908	0.021	Significant
Disaster Response	2.441	0.046	Significant
Disaster Relief and Rehabilitation	2.026	0.090	Not Significant
Being a Disaster Manager	2.189	0.069	Not Significant
Component of Disaster Management	2.766	0.027	Significant
Introduction to Disaster Management	3.738	0.005	Significant
Specific Hazards and Mitigation	3.473	0.008	Significant
Preventing Man-made Disaster	3.710	0.006	Significant

The one-way Analysis of Variance results in Table 13 revealed a significant difference in the level of implementation of each SDRRM area when the respondents are categorized corresponding to educational attainment, as evidenced by their p-values which are all greater than 5% level of significance. This implies that respondents who pursued higher educational attainment tend to post higher levels of implementation while those who did not pursue educational attainment tend to post lower levels of implementation. But in terms of disaster relief and rehabilitation and being a disaster manager was considered not significant on the level of implementation for as long as the Team has the spirit of volunteerism, hard work, rescuer provider, commitment, and dedication to work.

Table 14. ANOVA Test for the Difference in the Level of Implementation of SDRRM by Position in SDRRM Team

Variables	F-value	p-value	Interpretation
Disaster Preparedness	0.00	1.000	Not Significant
Disaster Response	0.00	1.000	Not Significant
Disaster Relief and Rehabilitation	0.00	1.000	Not Significant
Being a Disaster Manager	0.00	1.000	Not Significant
Component of Disaster Management	0.00	1.000	Not Significant
Introduction to Disaster Management	0.00	1.000	Not Significant
Specific Hazards and Mitigation	0.00	1.000	Not Significant
Preventing Man-made Disaster	0.00	1.000	Not Significant

As presented in Table 14, a one-way Analysis of Variance (ANOVA) revealed no significant difference in the level of implementation of each SDRRM area when the respondents are categorized according to their positions in the SDRRM Team, as indicated by their p-values which are all higher than 5% significance level. This signifies the same level of implementation of each SDRRM area across positions in the SDRRM Team.

Table 15. ANOVA Test for the Difference in the Level of Implementation of SDRRM by Number of DRRM Trainings Attended

Variables	F-value	p-value	Interpretation
Disaster Preparedness	44.497	0.000	Significant
Disaster Response	48.463	0.000	Significant
Disaster Relief and Rehabilitation	34.561	0.000	Significant
Being a Disaster Manager	61.091	0.000	Significant
Component of Disaster Management	47.540	0.000	Significant
Introduction to Disaster Management	38.088	0.000	Significant
Specific Hazards and Mitigation	40.015	0.000	Significant
Preventing Man-made Disaster	20.097	0.000	Significant

As presented in Table 15, it reveals a significant difference in the level of implementation of each SDRRM area across numbers of DRRM-related trainings attended by the respondents. This is indicated by the p-values yielded by the one-way analysis of variance, each of which is less than 5% level of significance. This implies that the respondents who have more DRRM-related trainings tend to post higher levels of implementation while those with lesser DRRM-related trainings tend to post lower levels of implementation.

Table 16. ANOVA Test for the Difference in the Level of Implementation of SDRRM by Membership in any DRRM related Organization

Variables	F -value	p-value	Interpretation
Disaster Preparedness	0.702	0.671	Not Significant
Disaster Response	0.669	0.698	Not Significant
Disaster Relief and Rehabilitation	0.733	0.644	Not Significant
Being a Disaster Manager	0.847	0.548	Not Significant
Component of Disaster Management	0.834	0.559	Not Significant
Introduction to Disaster Management	0.570	0.780	Not Significant
Specific Hazards and Mitigation	0.712	0.662	Not Significant
Preventing Man-made Disaster	0.895	0.510	Not Significant

As revealed here by the one-way Analysis of Variance (ANOVA), there is no significant difference in the level of implementation of each SDRRM area when the respondents are categorized according to membership in DRRM related organizations, as evidenced by their p-values which are all greater than 5% level of significance. This indicates that there is the same level of implementation of each SDRRM area across categories of membership in any organization.

As shown in Table 17, there is a significant relationship between educational attainment and the following SDRRM areas: *disaster preparedness* (p-value of 0.021), *disaster response* (p-value of 0.046), *component of disaster management* (p-value of 0.027), *introduction to disaster management* (p-value of 0.005), *specific hazards and mitigation* (p-value of 0.008), and *preventing man-made disaster* (p-value of 0.006). Among these, the highest correlation coefficient is between *educational attainment and introduction to disaster management* ($\eta=0.177$), while the lowest is between *educational attainment and disaster relief and rehabilitation* ($\eta=0.131$).

Table 17. Relationship between the Level of Implementation of SDRRM and the Profile Variables

	Preparedness	Response	Relief and Rehabilitation	Being a Disaster Manager	Component of Disaster Management	Introduction to Disaster Management	Specific Hazards and Mitigation	Preventing Man-made Disaster
Age^a	0.033 (p=0.481)	0.047 (p=0.307)	0.034 (p=0.468)	0.028 (p=0.540)	0.020 (p=0.670)	0.043 (p=0.350)	0.035 (p=0.447)	0.039 (p=0.397)
Sex^b	0.071 (p=0.126)	0.066 (p=0.156)	0.042 (p=0.365)	0.060 (p=0.197)	0.043 (p=0.349)	0.047 (p=0.311)	0.049 (p=0.288)	0.049 (p=0.287)
Civil Status^c	0.063 (p=0.609)	0.077 (p=0.426)	0.037 (p=0.887)	0.030 (p=0.938)	0.030 (p=0.937)	0.042 (p=0.842)	0.041 (p=0.852)	0.055 (p=0.707)
Educational Attainment^c	0.156 (p=0.021)	0.144 (p=0.046)	0.131 (p=0.090)	0.136 (p=0.069)	0.153 (p=0.027)	0.177 (p=0.005)	0.170 (p=0.008)	0.176 (p=0.006)
Position in SDRRM Committee^c	0.000 (p=1.000)	0.000 (p=1.000)	0.000 (p=1.000)	0.000 (p=1.000)	0.000 (p=1.000)	0.000 (p=1.000)	0.000 (p=1.000)	0.000 (p=1.000)
No. Of Trainings Attended^a	0.471 (p=0.000)	0.487 (p=0.000)	0.428 (p=0.000)	0.551 (p=0.000)	0.506 (p=0.000)	0.447 (p=0.000)	0.486 (p=0.000)	0.370 (p=0.000)
Membership in any DRRM related Organization^c	0.103 (p=0.671)	0.100 (p=0.698)	0.105 (p=0.644)	0.113 (p=0.548)	0.112 (p=0.559)	0.093 (p=0.780)	0.103 (p=0.662)	0.116 (p=0.510)

^aPearson r, ^bPoint-Biserial, ^cEta

The findings indicate that the higher the educational attainment of the SDRRM team members, the higher the level of implementation of the SDRRM-related programs and activities. This clearly demonstrates the positive impact of education beyond the graduate level on the implementation SDRRM. This further signifies that it is a good practice for schools to finance the professional development of the teachers assigned to SDRRM focal persons through postgraduate degrees and courses, especially those covering SDRRM.

Similarly, there is a significant relationship between the number of DRRM trainings attended and the following SDRRM areas, as evidenced by their p-values of 0.000. The highest correlation coefficient is between the number of DRRM related trainings attended and being a disaster manager ($r=0.551$), while the lowest correlation coefficient is between the number of DRRM related trainings attended and preventing man-made disasters ($r=0.370$). These relationships imply that the SDRRM Team which has more DRRM- related trainings tend to post a higher level of implementation.

The findings show that frequent attendance to SDRRM trainings is associated with a high level of implementation of SDRRM-related programs and activities. However, it is important to

note that prior to the selection of trainees, a needs assessment must be conducted to avoid a mismatch between the SDRRM competencies of the trainees that need to be enhanced and the type of SDRRM training to be attended. In other words, the selection of the training participants should be based on assessment results, and not by random identification.

Conclusions

SDRRM Team is mostly 36 to 50 years old; females; married; have obtained master's degree; fairly trained on DRRM Seminars; the majority were members of Barangay DRRM Team, and equally distributed across the SDRRM position. Among the eight major areas of DRRM implementation, only disaster relief and rehabilitation were moderately implemented. While the remaining seven areas were highly implemented. Of the fifty-five (55) specific programs and activities under DRRM implementation, forty-two (42) were highly implemented and thirteen (13) were moderately implemented.

No significant difference, as revealed in the implementation of activities under disaster relief and rehabilitation and "being a disaster manager" when the SDRRM Team are categorized corresponding to educational attainment. Meanwhile, At the level of implementation, there is a significant difference in each SDRRM area across the number of DRRM-related trainings attended by the respondents. The educational attainment and number of DRRM trainings attended by the respondents on the level of implementation of School Disaster Risk Reduction Management showed a significant relationship. With the aforesaid findings, a proposed SDRRM Development Plan was designed to further improve the implementation of SDRRM in public elementary schools in Region VIII.

Recommendations

The following recommendations would enhance the implementation of SDRRM in public elementary schools in Region VIII, to wit:

- 1) The SDRRM Team must undergo capability enhancement trainings to equip themselves with more DRRM Knowledge and skills;
- 2) Improve the level of implementation of SDRRM in the remaining thirteen (13) specific activities from moderately implemented to highly implemented. Hence, this could possibly be done by assessing the SDRRM Team and conducting trainings for them and could be possibly realized by strengthening the networking on linkages with other agencies, both Government Organizations and Non-Government Organizations for they are considered strong support that the school has;
- 3) Since educational attainment has a positive relationship with the level of implementation of SDRRM, the administrators and teachers should be encouraged to pursue further studies that would equip their knowledge and skills in the future;
- 4) The SDRRM school should ensure coordination with the Local Government Units (LGU) and Health Units on matters relating to COVID-19; and
- 5). SDRRM Development Plan to improve the implementation of SDRRM in public elementary schools in Region VIII.

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