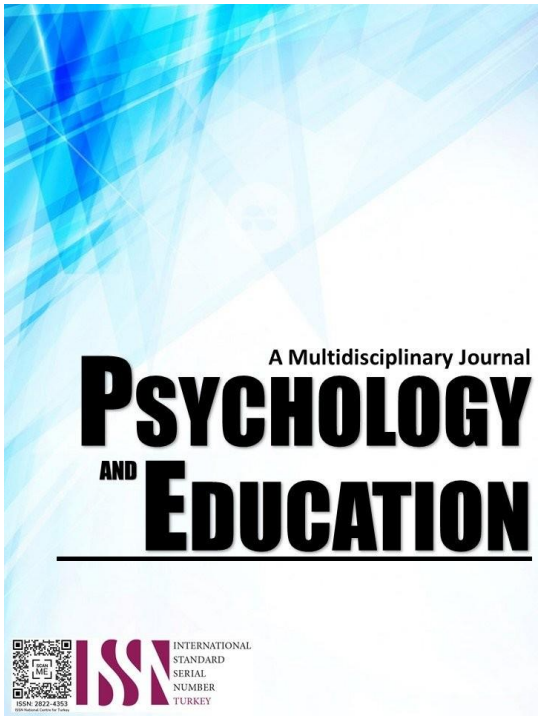
CHALLENGES ENCOUNTERED IN THE IMPLEMENTATION OF SCHOOL DISASTER RISK REDUCTION MANAGEMENT PROGRAM OF THE PUBLIC HIGH SCHOOL IN DISTRICT I MARIKINA CITY: BASIS FOR AN ACTION PLAN



PSYCHOLOGY AND EDUCATION: A MULTIDISCIPLINARY JOURNAL

2023
Volume: 13
Pages: 840-848
Document ID: 2023PEMJ1213
DOI: 10.5281/zenodo.8369943
Manuscript Accepted: 2023-19-9

Psych Educ , 2023, **13**: 840-848, Document ID:2023 PEMJ1213, doi:10.5281/zenodo.8369943, ISSN 2822-4353

Research Article

Challenges Encountered in the Implementation of School Disaster Risk Reduction Management Program of the Public High School in District I Marikina City: Basis for an Action Plan

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Abstract

This study aimed to determine the extent of challenges encountered in the implementation of the School Disaster Risk Reduction Management program of the five selected public secondary schools in Marikina District I during the school year 2022 – 2023 which could serve as the basis for an action plan.Based on the findings, the administrators and teacher respondents perceived the extent of challenges encountered by the School Disaster Risk Reduction Management Office with grand weighted mean ratings of 3.82 and 3.84 respectively, verbally interpreted as High Extent (HE). Also, the extent of the implementation of SDRRM program as assessed by school administrators and teachers is at High Extent (HE) as revealed by the grand mean ratings of 4.21 and 4.22, respectively, with verbal interpretation of High Extent (HE). Moreso, there is a significant relationship between the challenges encountered and the extent of the implementation of school disaster risk reduction management program.The proposed action plan was developed based on the result of the study.

Keywords: *school disaster risk reduction management program, action plan, challenges*

Introduction

Nowadays, disaster is unavoidable due to factors that alter our climate and environment. Almost all countries around the world responded to the global warming phenomenon by taking actions to mitigate the problems. Over the last decade, the world has seen the horrifying effects of natural and man-made disasters that have caused untold suffering and misery. Human lives have been put in constant danger as a result of being exposed to factors that typically contribute to disasters. One example is the magnitude 7.2 earthquake that struck Haiti in the early morning, the tsunami attack in Fukuoka prefecture on Japan's eastern mist seaboard, and Typhoon Haiyan, locally known as Yolanda, which is dubbed the strongest typhoon in human history. Likewise, In Marikina, longtime residents are no stranger to weather calamities. In fact, every year, there are at least 1 or 2 strong typhoons causes the Marikina River to rise and prompting the population living near the riverbanks to evacuate into the nearest public elementary school used as evacuation center. The most memorable calamity the city has ever had was the September 21, 2009 Typhoon Ondoy, where at least 85% of the whole city was flooded. The estimated worth of damages amounted to billions of pesos and it falls under the help of the city government, headed by the city mayor, Ms. Marides C. Fernando, initiated the rehabilitation of the city. Awareness and rapid response from the government, non-government organizations, religion sectors and citizenry performed key roles in the fast recovery of the city. Since then, the government passed a law creating the SDRRMO, the Disaster Risk Reduction Office became the center of attention and concern whenever there are calamities being experienced. Since Marikina City is in a valley, the flood waters may come in two fronts: (a) the Sierra Madre Mountain Ranges and (b) the San Mateo - Montalban Mountain Ranges. These may cause the Marikina River to overflow more often. That is why it is vital that we assess the work performance and challenges of school based SDRRMO in the Division of Marikina.

The Department of Education released several DepEd Orders that provides guidance on the implementation of disaster preparedness measures and protocols. One of which is the DepEd Order No. 33 s. 2021 that emphasizes the guidelines for school-based disaster preparedness and response measures for tropical cyclones, flooding, and other weather-related disturbances and calamities. It outlines the measures that must be taken by the schools and the support provided by the schools' division office. Another legal basis for Disaster Risk Reduction management is the RA 10121, which provides a comprehensive, all-hazard, multi-sectoral, inter-agency, and community-based approach to disaster risk management through the formulation of National Disaster Risk Management Board. From the foregoing views and observations of various authorities and organizations, the researcher was influenced and motivated to conduct this study.

Research Questions

This study aimed to determine the extent of the challenges encountered in the implementation of school disaster risk reduction management program of the school administrator and the teachers in five selected public secondary schools in Marikina District I during the school year 2022 – 2023 which could serve as the basis for an action plan. Specifically, it sought answers to the following questions:

1. What are the extent of the challenges encountered in the implementation of school disaster risk reduction management program as perceived by the administrators and teachers – respondents in terms of the following variables?
   1.1 Financial resources;
   1.2 Modern technology and equipment;
   1.3 Manpower; and
   1.4 Technical knowledge and understanding?
2. Is there a significant difference between the perception of the two groups of respondents on the extent of the challenges encountered in the implementation of the school disaster risk reduction management program in terms of the above-cited variables?
3. What are the extent of the implementation of school disaster risk reduction program as perceived by the administrators and teacher-respondents in terms of the following aspects?
   3.1 Prevention and mitigation of disaster;
   3.2 Disaster preparedness;
   3.3 Disaster response; and
   3.4 Rehabilitation and recovery after disaster?
4. Is there a significant difference in the perceptions of the two groups of respondents as regards to the extent of implementation of SDRRM program in terms of the above-cited aspects?
5. Is there a significant relationship between the extent of challenges encountered and the extent of the implementation of SDRRM program?
6. What action plan could be proposed based on the result of the study?

Literature Review

Makwana (2019) stated that disasters are a complicated, worldwide issue; they are an unavoidable reality of life. Disasters afflict people and communities every year, which undermines their mental health and well-being. Natural disasters frequently halt the growth of the global economy and social system. Maturan (2018) explained that recurrent disasters, a lack of financial resources, and the politicization of the process all impede rehabilitation, recovery, and reconstruction efforts in the Philippines. Linking immediate relief with long-term recovery and disaster risk reduction remains one of the aid sector's most persistent challenges, owing largely to continued underfunding of recovery programs, as evidenced by the post-Typhoon Haiyan experience, in which less than half of the $788 million required for recovery had been received six months after the disaster. Long-term post-disaster assessments reveal numerous gaps and difficulties in the recovery process.

Shat, et. al. (2020) pointed out that the primary goal of school emergency response is to protect children until they can reach their respective families. Investigate primary school emergency responses to identify strengths, weaknesses, and differences in current emergency preparedness and response practices. As explained by Sena (2019), a condition of readiness to respond to a disaster, crisis, or any form of emergency circumstance is defined as disaster preparedness. More broadly, it is defined as providing citizens, communities, state, local, and tribal governments with leadership, training, readiness and exercise support, and technical and financial assistance to strengthen professional emergency workers as they prepare for disaster, mitigate the effects of disaster, respond to community needs after a disaster, and launch effective recovery efforts.

Shaw (2018) said that by implementing a comprehensive set of readiness measures, preparedness planning tries to develop a standing capacity to respond to a variety of various situations that may strike a country or region. This involves, for example, early warning systems, continuing risk and vulnerability assessments, capacity building, the establishment and maintenance of stand-by capacities, and humanitarian supply stockpiling. The study of Dangcalan (2019) entitled “Designing a Disaster Resilient City: A Study of the Institutionalization Process of the Marikina City Disaster Risk Reduction and Management Office” contributes to DRM theory and practice by presenting an institutionalization process model particular to local Disaster Risk Management institutions and suggesting lessons from Marikina's experience that other LGUs can learn.

Another reviewed study by Amir (2019), entitled “Current capacities, preparedness and needs of local institutions in dealing with disaster risk reduction in Khyber Pakhtunkhwa Pakistan” used 40 key informants from 19 local institutions to identify the present capacities, preparedness, and gaps in the disaster management cycle of local institutions in

Khyber Pakhtunkhwa province, Pakistan. According to the study's findings, most local institutions were underprepared in terms of awareness and training, human resources, financial resources, infrastructure and equipment, and coordination. revealed that most local institutions lacked awareness and training, people resources, financial resources, infrastructure and equipment, and coordination. The findings in this study also highlighted that existing preparedness capacity gaps might be filled by capacity building training, technical assistance, and financial capacity and infrastructure development.

Furthermore, the study by Gong (2020) entitled "Looking through the lens of Schools: Children Perception, knowledge, and preparedness of flood disaster risk management in Pakistan" investigates Pakistani school children's perceptions, knowledge, and preparedness for flood catastrophe risk management. DRR teaching in schools is one method of disseminating disaster-mitigation information to each home in the community and developing a knowledge base for future generations. Children can play a key part in the crisis management cycle. This ensures that children can apply specific approaches at any stage of the crisis management process.

Methodology

This study used the descriptive research method designed to gather information about present existing condition needed on the chosen field of the study. According to Walliman (2021), descriptive method relies on observation as a means of collecting data. It attempts to examine situations in order to provide an explanation and establish what the norm is i.e. what can be predicted to happen again under the same circumstances. 'Observation' can take many forms. Depending on the type of information sought people can be interviewed, questionnaires distributed, visual records made, even sounds and smells recorded. The scale of the research is influenced by two major factors: the level of complexity of the survey and the scope or extent of the survey.

Participants of the Study

The main source of data was the one hundred (100) teachers and thirty-five (35) school administrators in the five (5) selected public secondary schools of District I, Marikina City. In this study the one hundred thirty-five (135) respondents consist of thirty-five (35) school administrators and one hundred (100) teachers who are members of School Disaster Risk Reduction Management Office in five selected public schools of District I, Marikina City.

Instruments of the Study

In this study, the primary research instruments used are the survey questionnaires. In gathering the data, the researcher made use of the close-ended questionnaire. The survey questionnaires were developed by the researcher, checked by his adviser, and validated by experts.

Procedure

First, the researcher made a survey questionnaire validated by the experts. Before conducting the survey of the different schools in Marikina, the researcher needed to have a letter of authority from the school division office. The survey questionnaires were personally administered and retrieved to ensure a high percentage of return. After having gathered the questionnaires; the data were tallied, tabulated, and statistically treated for analysis and interpretation.

Ethical Considerations

The researcher himself explained and gave the informed consent to each participant before the conduct of the study. He ensured them that the information would be used with utmost confidentiality and within the purpose of the study only.

Results and Discussion

Challenges Encountered by SDRRMO as Perceived by School Administrators and Teachers

The table 1 shows that the school administrators and teacher respondents perceived the extent of challenges encountered with weighted mean ratings of 3.66 and 3.75, verbally interpreted as High Extent (HE). It can be inferred that the challenges encountered by SDRRMO in five selected public secondary schools in Marikina District I during the school year 2022 – 2023 in terms of financial resources which is at a high extent as perceived by school administrators and teachers need to be addressed to ensure the successful implementation of the SDRRM program.

The data in the next table show that the school administrators and teacher respondent perceived the extent of challenges encountered in terms of modern technology and equipment with weighted mean ratings of 3.27 and 3.24, verbally interpreted as Moderate Extent (ME).

Psych Educ , 2023, **13**: 840-848, Document ID:2023 PEMJ1213, doi:10.5281/zenodo.8369943, ISSN 2822-4353

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Table 1. *Extent of Challenges Encountered by SDRRMO as Perceived by School Administrators and Teachers in Terms of Financial Resources*

A. Financial Resources	*Administrators*			*Teachers*		
	Mean	*SD*	*VI*	*Mean*	*SD*	*VI*
The school administration allocates sufficient budget for school disaster risk reduction management program.	3.66	0.80	HE	3.67	0.89	HE
There is adequate budget allocation from maintenance and other operating expenses.	3.77	0.73	HE	3.60	0.91	HE
There is sufficient financial support from local government unit.	3.77	0.88	HE	3.94	0.81	HE
There is adequate financial support from national government.	3.66	0.64	HE	3.76	0.81	HE
Financial donation from private institution/entities is sufficient.	3.46	0.70	ME	3.76	0.89	HE
Over-all	3.66		HE	3.75		HE

Table 2. *Extent of Challenges Encountered by SDRRMO as Perceived by School Administrators and Teachers in Terms of Modern Technology and Equipment*

Modern Technology and Equipment	*Administrators*			*Teachers*		
	Mean	*SD*	*VI*	*Mean*	*SD*	*VI*
There is enough modern technology and equipment used in every school intended for disaster risk reduction management office.	3.34	0.84	ME	3.35	0.94	ME
Proper maintenance of gadgets and equipment for disaster risk reduction management are being followed.	3.71	0.71	HE	3.60	0.92	HE
Malfunctions of gadgets/devices and equipment for disaster risk reduction management are avoided.	3.69	0.72	HE	3.62	0.86	HE
There is Satellite Navigation system in the division office used in disaster risk reduction.	3.09	1.04	ME	3.27	1.12	ME
Drone is evident in every school to be used in disaster risk reduction management.	2.54	1.15	ME	2.36	1.24	ME
Over-all	3.27		ME	3.24		ME

It implies that the SDRRMO in five selected public secondary schools in Marikina District I should invest in modern technology and equipment for the success of the program.

Table 3. *Challenges Encountered by SDRRMO as Perceived By School Administrators and Teachers In Terms of Manpower*

Manpower	*Administrators*			*Teachers*		
	Mean	*SD*	*VI*	*Mean*	*SD*	*VI*
School disaster manpower are well-managed by school disaster risk reduction office.	4.09	0.66	HE	4.09	0.89	HE
School disaster risk reduction teams are well-organized and ready to deploy in case of a disaster.	4.11	0.63	HE	4.17	0.85	HE
Team roles are well divided and defined by the officers of school disaster risk reduction office.	4.09	0.66	HE	4.17	0.78	HE
School disaster risk reduction management office teams are enough in disaster management.	3.91	0.66	HE	3.88	0.90	HE
Volunteerism is evident in the teams of school disaster risk reduction management office.	4.11	0.68	HE	4.11	0.86	HE
OWM	4.06		HE	4.08		HE

The table shows that the school administrators and teacher respondents perceived the extent of challenges encountered with weighted mean ratings of 4.06 and 4.08, verbally interpreted as High Extent (HE). Moreover, the data in Table 4 show that school disaster risk reduction teams are well-organized and are ready to deploy in case of a disaster, as proven by the mean ratings that range from 4.09 to 4.17.

Table 4. *Challenges Encountered by SDRRMO as Perceived by School Administrators and Teachers in Terms of Technical Knowledge and Understanding*

B. Technical Knowledge and Understanding	*Administrators*			*Teachers*		
	Mean	*SD*	*VI*	*Mean*	*SD*	*VI*
School disaster risk reduction management office personnel are knowledgeable in disaster preparedness and management.	4.31	0.68	HE	4.42	0.77	HE
Disaster risk reduction is included in every Junior High School curriculum to make the student aware and knowledgeable.	4.14	0.69	HE	4.12	0.90	HE
Every school is being evaluated yearly in school disaster risk reduction management.	4.34	0.64	HE	4.31	0.81	HE
There is public awareness and implementation of disaster risk reduction management plan in every school.	4.34	0.64	HE	4.32	0.80	HE
Understanding school disaster risk management are evident in school administrator and teacher.	4.29	0.62	HE	4.25	0.85	HE
Over-all	4.28		HE	4.28		HE

The table shows that the school administrators and teacher respondents perceived the extent of challenges

encountered with weighted mean ratings of 4.28 and 4.28, verbally interpreted as High Extent (HE). This means that there is a need for the curriculum to focus on disaster risk reduction.

Test of Significant Differences in the Respondents Perceptions as Regards to the Challenges Encountered by SDRRMO

Table 5. *Test of Significant Difference in the Perception of the Two Groups of Respondents as Regards the Challenges Encountered by SDRRMO in Terms of Financial Resources*

Group	#	*Mean*	*Variance*
Administrators	100	3.66	0.40
Teachers	35	3.70	0.59

Group	*Computed Z Value*	*Critical Z Value (0.05)*	*Decision*	*Interpretation*
Administrators Teachers	- 0.27	1.99	Accept H_o	Not Significant

At 0.05 level of significance it can be concluded that there is no significant difference in the assessment of two groups of respondents in terms of financial resources as part of challenges encountered by SDRRMO.

This implies that the administrators and teachers are united in saying that the challenges encountered by SDRRMO in five selected public secondary schools in Marikina District I during the school year 2022 – 2023 in terms of financial resources is at high extent as perceived by school administrators and teachers.

Table 6. *Test of Significant Difference in the Perception of the Two Groups of Respondents as Regards the Challenges Encountered by SDRRMO in Terms of Modern Technology and Equipment*

Group	#	*Mean*	*Variance*
Administrators	100	3.66	0.40
Teachers	35	3.70	0.59

Group	*Computed Z Value*	*Critical Z Value (0.05)*	*Decision*	*Interpretation*
Administrators Teachers	0.25	1.99	AcceptH_o	Not Significant

At 0.05 level of significance, it can be said that there is no significant difference in the assessment of two groups of respondents in terms of modern technology and equipment as part of challenges encountered by SDRRMO.

It can be inferred that administrators and teachers have the same perceptions that the challenges encountered by SDRRMO in five selected public secondary schools in Marikina District I during the school year 2022 – 2023 in terms of modern technology and equipment is at a moderate extent.

Table 7. *Test of Significant Difference in the Perception of Two Groups of Respondents as Regards the Challenges Encountered by SDRRMO in Terms of Manpower*

Group	#	*Mean*	*Variance*
Administrators	100	4.06	0.30
Teachers	35	4.08	0.56

Computed Z Value	*Critical Z Value (0.05)*	*Decision*	*Interpretation*
-0.18	1.99	AcceptH_o	Not Significant

At 0.05 level of significance, it can be claimed that there is no significant difference in the assessment of two groups of respondents in terms of manpower as part of challenges encountered by SDRRMO.

It implied that administrators and teachers are one in saying that the challenges encountered by SDRRMO in five selected public secondary schools in Marikina District I during the school year 2022 – 2023 in terms

of manpower is at high extent which shows that SDRRMO have enough manpower to deal with disaster.

There is no significant difference in the assessment of two groups of respondents in the challenges encountered by SDRRMO in terms of technical knowledge and understanding as seen in the computed Z value of 0.31 which is less than the critical Z value of 1.99 that led to the acceptance of null hypothesis at 0.05 level of significance as reflected in the next table.

Table 8. *Test of Significant Difference in the Perception of Two Groups of Respondents as Regards the Challenges Encountered by SDRRMO in Terms of Technical Knowledge and Understanding*

Group	#	*Mean*	*Variance*
Administrators	100	4.29	0.33
Teachers	35	4.25	0.54

This implies that administrators and teachers are united in saying that the challenges encountered by SDRRMO in five selected public secondary schools in Marikina District I during the school year 2022 – 2023 in terms of technical knowledge and understanding is at a high extent.

Table 9. *Extent of Implementation of SDRRM Program as Perceived by School Administrators and Teachers in Terms of Prevention and Mitigation of Disaster*

Prevention And Mitigation of Disaster	*Administrators*			*Teachers*		
	Mean	*SD*	*VI*	*Mean*	*SD*	*VI*
1. The construction of a newly designed classroom resilient to flood and earthquake is taken into consideration.	3.89	0.83	HE	3.89	0.93	HE
2. The inspection of buildings is done annually/periodically.	4.14	0.69	HE	4.14	0.85	HE
3. The building rehabilitation and repair is conducted/done after the disaster.	4.06	0.59	HE	3.97	0.94	HE
4. A tree planting activity is initiated yearly.	3.17	1.01	ME	3.08	115	ME
5. Earthquake and fire drills are conducted quarterly.	4.63	0.60	VHE	4.64	0.63	VHE
Over-all	3.98		HE	3.94		HE

The table shows that the school administrators and teacher respondents perceived the extent of implementation of SDRRMO program with weighted mean ratings of 3.98 and 3.94, verbally interpreted as High Extent (HE). The data also show that indicator earthquake and fire drills are conducted quarterly as it obtained the highest weighted mean rating of 4.64. On the other hand, indicator 4 obtained the lowest rating of 3.08.

Table 10. *Extent of implementation of SDRRM program as Perceived by School Administrators and Teachers in Terms of Disaster Preparedness*

Disaster Preparedness	*Administrators*			*Teachers*		
	Mean	*SD*	*VI*	*Mean*	*SD*	*VI*
The School administrator and teachers attend Disaster Risk Reduction Management training/seminars.	4.40	0.60	HE	4.35	0.78	HE
The School administrator and teachers are well-oriented on the early warning device system.	4.37	0.73	HE	4.45	0.70	HE
The School administrator and teachers are aware of the school emergency plan.	4.40	0.69	HE	4.44	0.77	HE
The School administrator and teachers are trained in the use of survival kits.	4.17	0.17	HE	3.92	0.97	HE
The School administrator and teachers maintain, disseminate, and post relevant and updated emergency hotlines in strategic locations throughout the school	4.34	0.68	HE	4.35	0.78	HE
Over-all	4.34		HE	4.30		HE

The table shows that the school administrators and teacher respondents perceived the extent of implementation of SDRRMO program with weighted mean ratings of 4.34 and 4.30, verbally interpreted as High Extent (HE). More specifically, the data show that indicator 3 the school administrators and teachers are aware of the school emergency plan, obtained the highest weighted mean rating of 4.44. On the other hand, indicator 4 the school administrators and teachers are trained in the use of survival kits, obtained the lowest rating of 3.08. This means that there is a need for training for these aspects.

The table 11 shows that the school administrators and teacher respondents perceived the extent of implementation of SDRRMO program with weighted mean ratings of 4.23 and 4.29, verbally interpreted as High Extent (HE). More specifically, the data show that the school follows the disaster preparedness measure as it obtained the highest weighted mean rating of 4.44.

Table 11. *Extent of implementation of SDRRMO program as Perceived by School Administrators and Teachers in Terms of Disaster Response*

Disaster Response	*Administrators*			*Teachers*		
	Mean	*SD*	*VI*	*Mean*	*SD*	*VI*
The established evacuation plan is used/followed during a disaster.	4.43	0.61	HE	4.38	0.75	HE
All school personnel are tracked during disasters and/or emergencies.	4.23	0.55	HE	4.25	0.82	HE
The school records/property and learning resources are properly secured and safeguarded.	4.23	0.6	HE	4.22	0.86	HE
The school follows the disaster preparedness measure.	4.31	0.63	HE	4.44	0.76	HE
The School administrator and teachers initiate a relief and feeding program.	3.94	0.80	HE	4.15	0.86	HE
Over-all	4.23		HE	4.29		HE

It implies that the extent of implementation of SDRRMO program in five selected public secondary schools in Marikina District I during the school year 2022 – 2023 in terms of disaster response is at high extent as perceived by their school administrators and teachers which proves that the stakeholders are ready to respond to disaster.

Table 12. *Extent of implementation of SDRRMO program As Assessed by School Administrators and Teachers in Terms of Rehabilitation and Recovery after Disaster*

Rehabilitation and Recovery After Disaster	*Administrators*			*Teachers*		
	Mean	*SD*	*VI*	*Mean*	*SD*	*VI*
School properties are accounted for after the disaster.	4.17	0.57	HL	4.35	0.78	HL
The School administrator and teachers facilitate rapid assessment of damages after every hazard.	4.31	0.63	HL	4.34	0.77	HL
The School administrator and teachers prepare and submit reports on the effects of any hazard.	4.29	0.57	HL	4.35	0.78	HL
The School administrator and teachers coordinate immediately with the Local government unit for the funding or costing of possible buildings rehabilitation.	4.43	0.61	HL	4.34	0.79	HL
The School administrator and teachers help with the rehabilitation & repair of the school properties.	4.17	0.66	HL	4.25	0.86	HL
Over-all	4.27		HL	4.33		HL

The table shows that the school administrators and teacher respondents perceived the extent of implementation of SDRRMO program with weighted mean ratings of 4.27 and 4.33, verbally interpreted as High Extent (HE). More specifically, the data show that the school administrators and teachers coordinate immediately with the local government unit for the funding or costing of possible buildings rehabilitation since obtained the highest weighted mean rating of 4.43. On the other hand, indicators 5 obtained the lowest rating of 4.17 which means that there is a need for the rehabilitation and repair of the school properties.

Test of Significant Differences in the Assessment of School Administrators and Teachers as Regards the Extent of Implementation of SDRRMO Program

Table 13. *Test of Significant Difference in the Perception of Two Groups of Respondents as Regards the Extent of Implementation of SDRRMO Program in Terms of Prevention and Mitigation of Disaster*

Group	*#*	*Mean*	*Variance*	*Computed Z Value*	*Critical Z Value (0.05)*	*Decision*	*Interpretation*
Admin.	100	3.98	0.26	0.31	1.99	Accept H_o	Not Significant
Teachers	35	3.94	0.43				

At 0.05 level of significance, it can be concluded that there is no significant difference in the assessment of two groups of respondents in terms of prevention and mitigation of disaster. This shows that both the administrators and teachers have the same assessment that the extent of implementation of SDRRMO program in five selected public secondary schools in Marikina District I during the school year 2022 – 2023 in terms of prevention and mitigation of disaster is at high extent.

Table 14. *Test of Significant Difference in the Perception of Two Groups of Respondents as Regards the Extent of Implementation of SDRRMO Program in Terms of Disaster Preparedness*

Group	*#*	*Mean*	*Variance*
Administrators	100	4.34	0.33
Teachers	35	4.30	0.45

Group	*Computed Z Value*	*Critical Z Value (0.05)*	*Decision*	*Interpretation*
Administrators Teachers	0.30	1.99	Accept H_o	Not Significant

At 0.05 level of significance, it can be claimed that there is no significant difference in the assessment of two groups of respondents in terms of disaster preparedness. It implied that the administrators and teachers agree that the extent of implementation of SDRRMO program in five selected public secondary schools in Marikina District I during the school year 2022 – 2023 in terms of disaster preparedness is at high extent.

Table 15. *Test of Significant Difference in the Perception of Two Groups of Respondents as Regards the Extent of Implementation of SDRRMO program in Terms of Disaster Response*

Group	#	*Mean*	*Variance*
Administrators	100	4.23	0.30
Teachers	35	4.29	0.48

Group	*Computed Z Value*	*Critical Z Value (0.05)*	*Decision*	*Interpretation*
Administrators Teachers	- 0.51	1.99	Accept H_o	Not Significant

At 0.05 level of significance, it can be said that there is no significant difference in the assessment of two groups of respondents in terms of disaster preparedness. It can be inferred that the administrators and teachers are one in saying that the extent of implementation of SDRRMO program in five selected public secondary schools in Marikina District I during the school year 2022 – 2023 in terms of disaster response is at high extent.

Table 16. *Test of Significant Difference in the Respondents Perceptions as Regards the Extent of Implementation of SDRRMO Program in Terms of Rehabilitation and Recovery after Disaster*

Group	#	*Mean*	*Variance*
Administrators	100	4.27	0.28
Teachers	35	4.33	0.53

Group	*Computed Z Value*	*Critical Z Value (0.05)*	*Decision*	*Interpretation*
Administrators Teachers	- 0.45	1.99	Accept H_o	Not Significant

At 0.05 level of significance, it can be claimed that there is no significant difference in the assessment of two groups of respondents in terms of rehabilitation and recovery after disaster. This means that the administrators and teachers both agree that the extent of implementation of SDRRMO program in five selected public secondary schools in Marikina District I during the school year 2022 – 2023 in terms of rehabilitation and recovery after disaster is at high extent.

Test of Significant Relationship Between the Challenges Encountered and the Extent of implementation of SDRRMO Program

Table 17. *Test of Significant Relationship Between the Challenges Encountered and the Extent of implementation of SDRRMO Program*

Variables	*Computed r Value*	*Df*	*Computed t Value*	*Tabular t Value 0.05(LOS)*	*Decision*	*Interpretation*
Performance Challenges	0.77	133	14.09	1.98	Reject H_0	Significant

At 0.05 level of significance, it can be concluded that there is significant relationship between the implementation of SDRRMO program and challenges they encountered during, before and after disaster. The computed r value of 0.77 denotes a high relationship between two variables which coincides with high extent in implementation of SDRRMO program and high extent of challenges encountered by SDRRMO.

It means that the SDRRMO in five selected public secondary schools in Marikina District I during the school year 2022 – 2023 have high extent of implementation of SDRRMO program and can withstand the high extent of challenges they encountered before, during and after disaster.

Conclusion

Based on the findings of the study, the following conclusions were derived: (1) The SDRRMO in five selected public secondary schools in Marikina District

I encountered challenges in terms of financial resources, modern technology and equipment, manpower, and technical knowledge and understanding. (2) The SDRRMO program is well implemented in terms of prevention and mitigation of disaster, disaster preparedness, disaster response and rehabilitation and recovery after disaster. (3) The extent of the implementation of the SDRRMO program may be affected by the extent of the challenges the schools encountered. (4) There is a need for an action plan in order to facilitate effective and efficient procedures before, during and after disaster.

In view of the conclusions formulated in this study, the following are hereby recommended: (1) Findings of the study may be presented to the school administrators, local government, stake holders and students raise an awareness on the challenges encountered in the implementation of SDRRMO program. (2) Administrators may take into consideration the need for modern technology and equipment so that the members of SDRRMO can easily solve the problems they encounter during and after a disaster. (3) The five selected public secondary schools in Marikina District I may continue their very satisfying implementation of the SDRRMO program in terms of prevention and mitigation of disaster, disaster preparedness, disaster response and rehabilitation and recovery after a disaster which is found to be at high extent as assessed by their school administrators and teachers. (4) Future researchers may conduct similar studies in order to validate the veracity of the present study. They may also involve other districts in Marikina City and secondary or tertiary schools within the national capital region.

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