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## DISASTER RISK REDUCTION MANAGEMENT PRACTICES OF SCHOOL MANAGERS

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### Abstract

This study determined the level of disaster risk reduction management practices of school managers in the public elementary schools of the different divisions of Pangasinan, SY 2015-2016. The researcher arrived at the following findings: 1) majority of the respondents belong to the age bracket of 61 years old and above that is 62 or 42.2 percent, married that is 113 or 76.9 percent, earned their masteral units that is 48 or 32.7 percent, have 11-15 years' experience as school managers and attended relevant trainings in all levels. 2) the level of disaster risk reduction management practices of public elementary school administrator obtained an over-all weighted mean of 4.20 which is rated as "Practiced".

The following recommendations are hereby presented: 1) a well-managed development program on disaster management should be organized by the DepEd. This is necessary to improve the disaster risk reduction management practices of school managers in their schools and communities. 2) the very good practices of school managers in disaster risk reduction management should be continued and expanded. 3) more intensified training program should be designed, formulated and implemented to upgrade the skill and competencies of school managers in managing disaster risk reduction in the school as well as in the community. 4) other studies should be conducted to work into other aspects of disaster risk reduction management using variable's in a wider scope.

**Keywords:** Disaster Risk Reduction, Management Practices

### 1. Introduction and Research Focus

Disaster is neither a local nor national problem. Indeed, it is a global problem as we all live in this world. We might be living in different countries with different climate and time, but we are all facing disaster in many different ways such as typhoon, fire and earthquakes. It is international issue where everyone should show concern and move towards attaining zero causality during a specific majeure. Disaster is a serious disruption of the functioning of a community or a society or a society involving widespread of human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources. (Wikipedia, 2014). Disaster risk reduction is a goal of every nation during a disaster/calamity. It is the analysis and practices of every country to reduce the casualties during a calamity. These management procedures and practices aimed to lessen the amount of possible casualty whenever a disaster happens.

## 2. Research Methodology

This study adopted the descriptive method in an attempt to determine and analyse the disaster risk reduction management practices of public school managers of Pangasinan. Results of the statistical analysis were the basis of inferences, conclusions and recommendations. The level of disaster risks reduction management practices of school managers were determined using the weighted average point (WAP) with corresponding descriptive values and equivalents (1.00-1.80-Not Practised ; 1.81-2.60-Poorly Practised; 2.61-3.40-Moderately Practised; 3.41-4.20 Practised; 4.21-5.00 Highly Practised).

## 3. Description of Action and Results

Several variables are taken into considerations and have either significant or insignificant meanings of the study. These variables are age, sex, civil status, highest educational attainment, length of service and the number of relevant trainings.

Table 1: Profile Variables

Profile	f	%	
Age	30 years old below	5	3.4
	31-40 years old	35	23.8
	41-50 years old	45	30.6
	51 years old and below	62	42.2
Sex	Male	55	37.4
	Female	92	62.6
Civil Status	Single	22	15.0
	Married	113	76.9
	Widow/Widower	12	8.2
Highest Educational Attainment	BS Graduate	2	1.4
	With MA Units	42	28.6
	MA Degree	48	32.7
	With Doctoral Units	33	22.4
Years' Experience as School Managers	Doctoral Degree	22	15.0
	5 years below	51	34.7
	6-10	32	21.8
	11-15	35	23.8
Relevant Trainings Attended	16 years above	29	19.7
	5 below	74	50.3
	6-10	28	19.0
	11 above	45	30.6
District	5 below	69	46.9
	6-10	28	19.0
	11 above	50	34.0
Division	5 below	59	40.1
	6-10	23	15.6
	11 above	65	44.2
Regional	5 below	85	57.8
	6-10	18	12.2
	11 above	44	29.9
National	5 below	99	67.3
	6-10	15	10.2
	11 above	33	22.4
International	5 below	118	80.3
	6-10	5	3.4
	11 above	24	16.3

In terms of age, there are 35 (23.8%) who belong to age bracket 31-40 years old, 45 (30.6%) are in age bracket 40 to 50 years old, 62 (42.2%) belong to age bracket 51 years old and above while 5 or 3.4 percent are in the age bracket of 21 to 30 years old which is the youngest in the group. It can be noted at this point that in terms of age, there are more matured teachers in the area of the study. As such, they are expected to be more competent and skilled in the field of disaster risk reduction management. Moreover, it can be said that they are in the right age to be considered more productive and more committed in performing well their roles, functions and responsibilities in disaster risk reduction management. The profile variable sex is also considered in this study which is deemed important. It can be gleaned from the data in the table that there are more females 92 (62.6%), whereas their male counterpart is 56 (37.4%). It is an accepted fact that teaching profession is female dominated. It is also observed that in teaching institutions, there are really more female who pursue teaching career than males.

In terms of civil status, the school administrators are mostly married that is 113 (76.9%). At a certain point, the status of being married, having a family and a stable married life is a feeling of self-fulfillment and security. Such being the case, marital status can be a contributory factor to good performance. Further, the data in the table revealed that 55 or 37.4 percent are single.

The quest for knowledge is a distinguishing hallmark of a school administrator. Truly, school administrators need to learn more to expand their ability to teach. Growth in education can be done through updating oneself through formal schooling in the graduate studies. It can be seen from the table that the majority of the school administrators are master of arts degree holders that is 48 or 32.7 (62.6%), 42 (28.6%) percent have masteral units, 33(22.4%) have doctoral units, 22(15%) are doctoral degree holders and 2(1.4%) are BS Graduates which is considered as the lowest educational attainment. It could be said that the educational profile of the respondents is high enough, with the impression that a great number of them went beyond bachelor's degree. This only shows that the educational attainment of the public elementary school administrators in Pangasinan is more than what the Civil Service Qualification Standards requires, at least Master of Arts Units. In fact, the educational qualification is one essential factor in one's promotion in the career service.

Reflected in table 2, are categories as to the years of experience as school managers. Majority of

Table 2: Level of Disaster Risk Reduction Management of School Administrators along Disaster Preparedness.

Indicators	Mean	TR
1. Make an outline plans for disaster management that can be used as framework.	4.22	HP
2. Identify potential critical incidents.	4.29	HP
3. Create a no cost or low cost disaster kit.	4.14	HP
4. Develop a communication plan on disaster risk reduction management.	4.29	HP
5. Develop whole school approaches to health and safety.	4.40	HP
6. Make plans on disaster preparedness in the school.	4.30	HP
7. Devise measures which can prevent tragedies to happen.	4.14	HP
8. Establish personnel support and network.	4.35	HP
9. Identify places which serve as evacuation centers.	4.43	HP
10. Identify available support agencies.	4.33	HP
11. Conduct planning meeting to determine school needs.	4.37	HP
12. Identify list of directives during disaster.	4.31	HP
13. Prepare pre-disaster risk assessment.	4.22	HP

14. Identify possible evacuation centers.	4.22	HP
15. Check local hazards and vulnerability maps.	4.27	HP
AWM	4.29	HP

Legend:

- 4.21-5.00 -Highly Practiced (HP)
- 3.41-4.20 - Practiced (P)
- 2.61-3.40 - Moderately Practiced (MP)
- 1.81-2.60 - Slightly Practiced (SL)
- 1.00-1.80 - Not Practiced (NP)

As indicated by the data presented, the respondents obtained an average weighted mean of 4.29 described as “Highly Practised” in disaster preparedness management. The items which obtained the least weighted mean of 4.14 are item number 3 and item number 7 which are “create a no cost on low cost disaster kit” and “devise measures which can prevent tragedies to happen”.

On the whole levels of disaster risk reduction management is very satisfactory as manifested by the different indicators. This implies that the respondents highly practised disaster risk reduction management along disaster preparedness management as part of their responsibilities and roles as school administrators as agents of reforms. This also means that they are experts in disaster preparedness like making an outline plans for disaster management that can be used as framework, develop communication plans for disaster, develop whole school approaches to health and safety, identify available support agencies and list of directives during disaster and conduct planning meeting to determine school needs.

Table 3 shows data on the level of disaster risk reduction management  
 Along disaster management.

Indicators	Mean	TR
1. Manage health and safety training education on disaster.	4.31	HP
2. Improve procedures leading to greater levels of health and safety.	4.23	HP
3. Help contain the incident and minimize the extent of damage.	4.27	HP
4. enable the teaching staff to meet obligations under various health and safety.	4.30	HP
5. Lead to an awareness of possibilities of preventing disasters from happening in the place.	4.32	HP
6. Involve school staff in managing potential problems during disaster.	4.29	HP
7. Manage personnel to handle their roles and responsibilities in the school in case of disaster.	4.37	HP
8. Enhance capacities among multi-hazard and integrate local needs.	4.31	HP
9. implement simple risk reduction measures.	4.31	HP
10. Manage properly the distribution of the resources intended for the victims of disaster.	4.12	HP
11. Manage the preparation of logistical support.	4.17	HP
12. Manage resources needed by the affected areas.	4.11	HP
13. Help manage in the distribution of relief goods.	4.04	HP
14. Manage in the distribution of kits/bags to students and teachers.	3.97	HP
15. Spearhead the implementation of school preparedness guide.	4.30	HP
AWM	4.23	HP

Legend:

- 4.21-5.00 -Highly Practiced (HP)
- 3.41-4.20 - Practiced (P)
- 2.61-3.40 - Moderately Practiced (MP)
- 1.81-2.60 - Slightly Practiced (SL)
- 1.00-1.80 - Not Practiced (NP)

As indicated in the table, the weighted mean and descriptive equivalent are included under disaster preparedness. The overall weighted mean for disaster preparedness is 4.23 described as “Highly Practised”. The item which obtained the highest weighted mean is item number 7, which is “manage personnel to handle their roles and responsibilities in the school in case of disaster”, 4.37 rated as “Highly Practised”. Although the item’s transmuted rating is “Highly Practised”, there is still a need to sustain or even improve along this line. Idealism is always there in any organization or system. We expect things to happen almost perfect. In this management aspect, there is still a room for improvement to become perfect.

It can be inferred from such findings that school managers perform disaster management. They are religiously and diligently performing their tasks and functions. These findings indicate that the respondents show deep concern in carrying out what to be done. It is indeed interesting to note that as school managers, they exemplify such skills.

Table 4 shows the data on the level of disaster risk reduction management along disaster mitigation.

Indicators	Mean	TR
1. Reinforce hazard mapping in the school.	4.28	HP
2. Conduct information dissemination on disaster mitigation awareness program.	4.30	HP
3. Improve communities resilience to disaster by enforcing building codes.	4.13	P
4. Encourage flood plain mapping in the communities.	4.08	P
5. Organize emergency task force to tackle earthquake and other disaster in the school.	4.29	HP
6. The disaster plan on mitigation divide into generic sections that are applicable to all disaster and hazard generic zones.	4.09	P
7. Create an enabling environment to cope with natural calamities.	4.20	P
8. develop proactive mechanisms to reduce economic cost and impact of disasters.	4.13	P
9. Craft a disaster mitigation plan which contribute coping mechanisms during disaster.	4.16	P
10. Inform the LGU the need of appropriate and sufficient resources to deal with different types of disaster.	4.19	P
11. Monitor typhoon path and its intensity.	4.27	HP
12. Coordinate with local government agencies on local risk profiling.	4.21	HP
13. Assists in the conduct of risk profiling.	4.15	P
14. Mobilize assistance for LGU for disaster mitigation.	4.14	P
15. Mobilize local assistance to support disaster mitigation.	4.15	P
AWM	4.19	P

Legend:

- 4.21-5.00 -Highly Practiced (HP)
- 3.41-4.20 - Practiced (P)
- 2.61-3.40 - Moderately Practiced (MP)
- 1.81-2.60 - Slightly Practiced (SL)
- 1.00-1.80 - Not Practiced (NP)

It can be seen in the table that the level of disaster risk reduction management along disaster mitigation obtained an overall weighted mean of 4.19 which denotes a transmuted rating of “Practised”. The item which obtained the highest rating with a weighted mean of 4.30 described as “Highly Practised” is item no. 2 “conduct information dissemination or disaster mitigation awareness program”. This can be inferred that the public school administrators give importance in informing the public as regards to disaster mitigation.

On the other hand, the item which obtained the lowest weighted mean is “the disaster plan or mitigation plan is divided into generic sections that are applicable to all disaster and hazard generic zones” obtaining a weighted mean of 4.30 described as “Practised”. This could mean that the school managers in the public elementary schools are aware that mitigation plan should not be divided into generic sections so that the people in the community can easily follow the different advocacies being conducted by the school managers which can develop a proactive mechanisms to reduce economic cost and impact of disasters. The overall weighted of 4.19 implies that the school managers in the venue of the study indeed a very strong confidence in disaster mitigation. There is a strong belief that they are competent enough in their rules as leaders in uplifting reforms and innovations.

Table 5 reflects the level of disaster risk reduction management along responses management

Indicators	Mean	TR
1. Provide immediate assistance to maintain life.	4.23	HP
2. Support the moral of the affected.	4.17	P
3. Assist victims with transport, temporary shelter and food.	4.17	P
4. Conduct evacuation drill in the school and the community.	4.34	HP
5. Develop awareness on response management during disaster.	4.31	HP
6. Educate people in ways that have a positive effect to take protective actions when warnings are given.	4.32	HP
7. Cooperate and help victims cope with disasters.	4.19	P
8. Coordinate with proper authorities for effective response.	4.19	P
9. Devise response plan to improve health victims.	4.17	P
10. Report to authorities the areas greatly affected by disasters.	4.23	HP
11. Provide support to speed up normal situation in the affected areas	4.23	HP
12. Provide potable water to the evacuation center.	4.19	P
13. Continue mobilizing volunteers in helping the victims.	4.20	P
14. Ensure the safety of routes of the returning evacuee.	4.15	P
15. Coordinate with electric and water cooperatives to repair damaged water and pipelines.	4.15	P
<b>AWM</b>	<b>4.22</b>	<b>HP</b>

Legend:

- 4.21-5.00 -Highly Practiced (HP)
- 3.41-4.20 - Practiced (P)
- 2.61-3.40 - Moderately Practiced (MP)
- 1.81-2.60 - Slightly Practiced (SL)
- 1.00-1.80 - Not Practiced (NP)

It can be gleaned from the data in the table that overall weighted mean of the respondents along response management is 4.22 denoting a transmuted rating of “Highly Practised”. Six items were rated “Highly Practised” having weighted means that range for 4.23 to 4.34. The rest of the indicators have weighted means that range from 4.15to 4.20 denoting a transmuted equivalent rating of “Practised”.

The assessment of school administrators by themselves along this area can be attributed to their attendance in seminars and trainings on disaster preparedness. Through these trainings the school administrators developed their overall ability to assess their own strengths and weakness and engaged in new learning including modified skills, competencies and attributes and eventually becoming responsible for their own selves to respond to the different functions of management and leadership during disaster.

Table 6 presents the data on the level of disaster risk reduction management along recovery management.

Indicators	Mean	TR
1. Implement the disaster recovery program.	4.12	P
2. Conduct recovery training for the victims of the disaster.	4.03	P
3. Consider site security for the victims of disaster.	4.15	P
4. Develop awareness of an out normal situation.	4.09	P
5. Educate the victims of disaster to become productive.	4.12	P
6. Report to proper authorities the victims of calamities for financial assistance.	4.12	P
7. Conduct health training for the victims of disaster.	4.08	P
8. Assist victims of calamities to necessary solutions to cope with disasters.	4.06	P
9. Assist organizations in providing medical and feeding services to the victims.	4.04	P
10. Give appropriate professional advice to protect the health and safety of the pupils.	4.08	P
11. Provide support to speed up normal situation in the affected areas.	4.02	P
12. Provide potable water to the evacuation center.	4.10	P
13. Continue mobilizing volunteers in helping victims.	4.06	P
14. Ensure the safety of routes of the returning evacuee.	4.06	P
15. Coordinate water and pipe lines.	4.04	P
<b>AWM</b>	<b>4.08</b>	<b>P</b>

Legend:

- 4.21-5.00 -Highly Practiced (HP)
- 3.41-4.20 - Practiced (P)
- 2.61-3.40 - Moderately Practiced (MP)
- 1.81-2.60 - Slightly Practiced (SL)
- 1.00-1.80 - Not Practiced (NP)

The data in the table shows that the overall weighted mean of the respondents along recovery management is 4.08 described as “Practised”. All items along this area were rated “Practised” obtaining weighted means that range from 4.03 to 4.10 of the 15 items. Item number 12 “provide potable water to the evacuation center” got the highest rank obtaining a weighted mean of 4.10 describe as “Practised” while item number 2 “support the moral of the affected” got the lowest rank obtaining a weighted mean of 4.02. This implies that school administrators also have their families to protect during disaster as the saying goes “Charity begins at home”. As such, they protect first their families before helping others. Furthermore, it could be inferred that the respondents are expert in recovery management though they prioritize their families first before helping other people. What is important is that they extend support to the most affected people in the community. School managers considered disaster recovery management as an indispensable part of management in their respective area of assignment.

Table 7: Overall Disaster Reduction Management Practices of School Administrators

Disaster Risk Reduction Management Practices of School Administrators	WM	DE
Disaster Preparedness	4.29	Highly Practised
Disaster Management	4.23	Highly Practised
Disaster Mitigation	4.19	Practised
Response Management	4.22	Highly Practised
Recovery Management	4.08	Practised
Overall Weighted Mean	4.20	Practised

Legend:

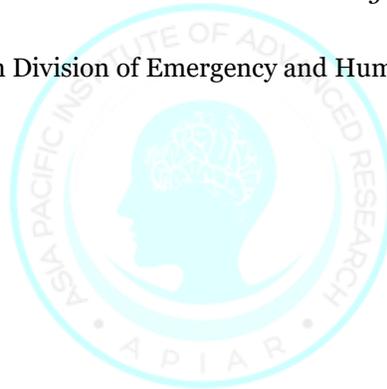
- 4.21-5.00 - Highly Practiced (HP)
- 3.41-4.20 - Practiced (P)
- 2.61-3.40 - Moderately Practiced (MP)
- 1.81-2.60 - Slightly Practiced (SL)
- 1.00-1.80 - Not Practiced (NP)

As shown in the data presented in the table, it revealed that among the five risk reduction management indicators, disaster preparedness, disaster management, disaster mitigation, response management and recovery management, it turned out that disaster preparedness has the highest mean of 4.29 denoting “Highly Practised” descriptive equivalent rating while the area on disaster mitigation obtained the lowest rating of 4.08 described as “Practised”. These findings clearly manifest that the school administrators are more focused on the disaster preparation than having perform their roles in recovery management.

It also appears that the level of disaster risk reduction management practices of school managers obtained an overall weighted mean of 4.20 denoting a descriptive rating of “Practised”. This only shows that the respondents comparably perform these skills. It can be said that the area on recovery management being the lowest in rank seems to be the most crucial because it needs financial allocation for every victim of disaster. School administrators will eventually find difficulty in this area considering there is no allocated funds on their hands to be given to the victims outright.

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1. manage health and safety training education on disaster					
2. improve procedures leading to greater levels of health and safety					
3. help contain the incident and minimize the extent of damage					
4. enable the teaching staff to meet obligations under various health and safety					
5. lead to an awareness of possibilities of preventing disasters from happening in the place					
6. involve school staff in managing potential problems during disaster					
7. manage personnel to handle their roles and responsibilities in the school in case of disaster					
8. enhance capacities among multi-hazard and integrate local needs					
9. implement simple risk reduction measures					
10. manage property the distribution of the resources intended for the victims of disaster					
11. manage the preparation of logistical support					
12. manage resources needed by the affected areas					
13. help manage in the distribution of relief goods					
14. manage in the distribution of kits/bags to students and teachers					
15. spearhead the implementation of school preparedness guide					
Disaster Mitigation	A	B	C	D	E
1. reinforce hazard mapping in the school					
2. conduct information dissemination on disaster mitigation awareness program					
3. improve communities resilience to disaster by enforcing building codes					
4. encourage flood plain mapping in the communities					
5. organize emergency task force to tackle earthquake and other disaster in the school					
6. the disaster plan on mitigation divide into generic sections that are applicable to all disaster and hazard generic zones					
7. create an enabling environment to cope with natural calamities					
8. develop proactive mechanism to reduce economic cost and impact of disasters					
9. craft a disaster mitigation plan which contribute coping mechanism during disaster					
10. monitor typhoon path and its intensity					
11. to inform the LGU the need of appropriate and sufficient resources to deal with different types of disaster					
12. coordinate with local government agencies on local risk profiling					
13. assists in the conduct of risk profiling					
14. mobilize assistance for LGU for disaster mitigation					