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## Environmentally Responsible Behavior and Disaster Preparedness among Public Elementary School Teachers

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**ABSTRACT:** The study on “Environmentally Responsible Behavior and Disaster Preparedness Among Public Elementary School Teachers” is conducted in Lucena City Division consisting of 135 teachers in public elementary teachers in Brgy. Gulang- Gulang. The purpose of this study is to determine the relationship between environmentally responsible behavior and disaster preparedness. The Descriptive-Correlational research design was adopted and the statistical tools such as mean and standard deviation were utilized to test the relationship of the independent and dependent variables. The research findings prove that environmentally responsible behavior has a significant relationship with the disaster preparedness of teachers. This study recommends: Enhancing a Disaster Preparedness Committee or Crisis Management Committee composed of the school head, teachers, and PTA officers and identifying their duties and responsibilities in terms of disaster preparedness. Enhance a simple and clear DRRM plan suited to the school's risks and vulnerabilities. Strengthen regular or scheduled drills and training to familiarize learners, educators, and employees with emergency procedures. Provide emergency supplies such as first aid kits, flashlights, batteries, bottled water, and non-perishable food. Strengthen disaster awareness into the school curriculum to ensure that learners understand the possible hazards as well as how to mitigate them. Regularly assess and update the school's DRRM planning to reflect on changes in the school environment, such as infrastructure improvements and modifications.

**KEYWORDS:** awareness, environmentally responsible behavior, disaster preparedness, disaster risk reduction management

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### I. INTRODUCTION

The Philippines is vulnerable to natural and man-made disasters because of its geographical location in the Pacific Ring of Fire and the typhoon belt. This implies that the country is prone to a range of natural calamities such as typhoons, earthquakes, floods, volcanic eruptions, landslides, and fires.

Around twenty (20) typhoons hit the country yearly and many of them are destructive. Disasters result in massive losses and injuries for children, school teachers, employees, and families. In addition, education is one of the most affected sectors by disasters. Education gaps are increased when schools are damaged, due to poor site selection, design, and construction, or when schools are used as evacuation areas that result in educational disruption.

Furthermore, the following are some identified issues in disaster preparedness; (1) Inadequate Disaster Preparedness. Natural disasters like typhoons, fires, floods, and earthquakes have become more frequent and intense globally during the past few decades. These incidents not only endanger lives immediately but also wreck communities and economies. (2) Children as Vulnerable Populations. One of the most vulnerable groups during disasters is children, especially those attending elementary schools. Since they frequently lack the knowledge and ability to react appropriately, injuries and trauma may result that may have been avoided. (3) Limited Disaster Education. Numerous public elementary schools lack effective disaster preparedness plans. This increases the hazards because learners and teachers are ill-prepared to deal with emergencies. (4) Importance of Early Environmental Education. Early exposure to environmental education can have a positive impact on habits in the long run. An essential chance to inculcate environmentally conscious practices and attitudes is through public elementary schools. Moreover, disasters are traumatic events for everyone involved. The emotional toll of a disaster can be just as devastating as the monetary limitations of damage and loss of home, business, or personal belongings are concerned. Disaster can leave students feelingscared, confused, and insecure. Whether an individual has personally experienced trauma, has only watched the event on the big screen, or has witnessed it discussed by adults, it is a vital role for parents and teachers to be knowledgeable and ready to assist if stress reactions begin to arise Ready (2022). [1]

However, the implementation of Disaster Risk Reduction Management (DRRM) relies on public awareness and education. The

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Disaster Resilience Mission Seeks to enhance the resilience of children and teachers to disaster risks by strengthening their understanding of catastrophes and cultivating their abilities to plan for, adapt to, minimize, and respond to the adverse impacts of Communication strategy is established with the LGU and the Local Disaster Risk Reduction Management Office (LDRRMO) to provide guidance on the required actions during disaster situations [2].

The Department of Education (DepEd) has released the Comprehensive Disaster Risk Reduction and Management (DRRM) in Basic Education Framework to direct DRRM initiatives in the basic education sector, focusing on enhancing resilience in offices and schools. The goal is to guarantee the uninterrupted delivery of quality education, even in times of disasters or emergencies [3]. Governments globally adopt DRRM, a methodical approach for recognizing, evaluating, and reducing the risks associated with catastrophes.

In addition, The Republic Act 10121 (2010), known as the Philippine Disaster Risk Reduction and Management Act of 2010, outlined the following provisions: (a) Empower DepEd staff, offices, schools, and students to ensure safety and uninterrupted learning; (b) Establish Disaster Risk Reduction and Management (DRRM), Climate Change Adaptation (CCA), and Education in Emergencies (EiE) as institutionalized practices; and (c) Enhance the resilience of basic education in the face of natural and man-made hazards [4].

### **OBJECTIVES OF THE STUDY**

This study aims to determine the relationship between Environmentally Responsible Behavior and Disaster Preparedness among elementary teachers in the four public elementary schools in Brgy. Gulang-Gulang, Lucena City during the S.Y. 2023-2024. Specifically, it seeks to assess the respondents' level of environmentally responsible behavior in terms of their intention to act, locus of control, attitudes, sense of personal responsibility, and knowledge and disaster awareness. It also aims to describe the teachers' level of disaster preparedness in areas such as assessment and planning, physical and environmental protection, responsecapacity development, and practicing, monitoring, and improving.

### **II. METHODOLOGY**

This study used the descriptive-correlational design. According to McBurney et al., (2009), descriptive-correlational utilized in research studies provide pictures of situations as well as establish the link between multiple variables. It describes the current state of environmentally responsible behavior and disaster preparedness of 4 public elementary teachers of the North District in the Division of Lucena City during the School Year of 2023-2024.

#### **A. Research Instrument**

In this study, a structured questionnaire was developed to gather the respondents' environmentally responsible behavior and disaster preparedness.

A self-assessment instrument was utilized to assess the respondents' level of environmentally responsible behavior in intention to act, locus of control, attitude, and sense of personal responsibility. The respondents were asked to rate their level of practice with each statement on a scale, typically ranging from 1 to 4 with 1 indicating "Never" and 4 indicating "Always".

To determine the respondents' knowledge and disaster awareness, a self-assessment instrument was utilized. This instrument will consist of a set of criteria or indicators reflecting different aspects of knowledge and disaster awareness. The respondents were asked to rate their level of awareness with each statement on a scale, typically ranging from 1 to 4 with 1 indicating "Not Aware at All" and 4 indicating "Highly Aware".

To evaluate the school disaster preparedness in assessment and planning, physical and environmental protection, responsecapacity development, and practicing, monitoring, and improving where the respondents are, a self-assessment instrument was utilized. The respondents were asked to rate their school disaster preparedness with each statement on a scale, typically ranging from 1 to 4 with 1 indicating "Not prepared at All" and 4 indicating "Highly Prepared". This quantitative approach enabled the researchers to measure the respondents' environmentally responsible behavior quantitatively.

Validation of the questionnaire was done by the Master Teachers in Gulang-Gulang Elementary School.

#### **B. Research Procedure**

The researcher seek permission from the Office of the Public Schools District Supervisor specifically from the North District of the Division of Lucena City for the conduct of the study. We need the School Principals' help to ensure the successful distribution of the research instruments. The researcher promptly retrieved the instrument once the responder completed the questionnaire. The data collected is collated, tabulated, and statistically analyzed for the interpretation of each outcome.

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## III. RESULTS AND DISCUSSION

**Table I. perceived environmentally responsible behavior in terms of Intention to Act**

Indicators	Mean	SD	Interpretation
1. I am attending seminars and trainings provided by the government and private sectors to learn more about disasters.	3.07	.288	Sometimes
2. I take part in the disaster preparedness plan that the school has developed.	3.59	.551	Always
3. I have an emergency kit that is essential in preparedness that includes water, nonperishable food, first aid items, a flashlight, and important documents.	3.43	.665	Sometimes
4. I participate in community drills to practice evacuation routes and emergency protocols.	3.71	.534	Always
5. I have the emergency hotlines of qualified persons such as emergency response teams, hospitals, fire stations, rescue teams, and the Brgy. Officials.	3.61	.510	Always
<b>Over-all</b>	<b>3.48</b>	<b>0.51</b>	<b>Sometimes</b>

*Legend: 3.50-4.00 Always; 2.50-3.49 Sometimes; 1.50-2.49 Often; 1.00-1.49 Never*

Table 1 reflects the respondent's level of environmentally responsible behavior in terms of intention to act. The result indicated that the respondents are always part of the development of school disaster preparedness, participating in community drills, and having emergency hotlines while on the other indicators, the respondents were sometimes attending seminars about disasters and having emergency kits. In general, the statistical result pointed out that the level of environmental behavior in terms of intention to act has a mean of 3.48 and a standard deviation of 0.51. The result of the study correlated with basic disaster management training and simulation have proven to be beneficial in enhancing disaster preparedness Juanita (2017) [5]. Another way to prepare for disasters is to keep an emergency preparedness kit in the first 72 hours that can assist with wound treatment, extending help, and saving lives.

**Table II. Perceived environmentally responsible behavior in terms of Locus of Control**

Indicators	Mean	SD	Interpretation
1. I do the Drop, Duck, Cover, and Hold until the shaking stops.	3.84	.362	Always
2. I feel that I have the ability over how prepared my family is for calamities.	3.63	.522	Always
3. When it comes to disaster preparedness, I am certain that my actions can have a substantial impact.	3.53	.497	Always
4. I am responsible for ensuring that my family is adequately prepared for crises.	3.70	.500	Always
5. I often believe that uncontrollable factors will determine the impact of a calamity on my life.	3.67	.491	Always
<b>Over-all</b>	<b>3.70</b>	<b>0.47</b>	<b>Always</b>

The table shows the data on the level of environmentally responsible behavior in terms of locus of control in ability and responsibility during the disaster. The obtained weighted mean for all the items in the responsible behavior ranged from 3.53 to 3.84 with a standard deviation of 0.47. Drills that serve as a practice are essential for teaching learners and teachers effective procedures for emergencies, assuring appropriate actions in situations, and instilling calm and accountability. These reduce delays during real evacuations Kelly (2010). [6] Learners may easily communicate the essential information to their own families, resulting in general community awareness that allows them to prepare as well.

**Table III. Perceived environmentally responsible behavior in terms of Attitude**

Indicators	Mean	SD	Interpretation
1. If there is a calamity, I will evacuate the building calmly.	3.76	.445	Always
2. If there is a calamity, I will stay home and keep informed when the government issues statements via their social media platforms about possible harmful disasters.	3.81	.388	Always
3. If there is a calamity, I will ensure that there is a go bag ready in case there is a need to evacuate.	3.64	.573	Always
4. I believe my colleagues share responsibilities for disaster preparedness.	3.80	.396	Always
5. I am convinced that my preventive actions will reduce the impact of a disaster on my town.	3.75	.456	Always

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<b>Over-all</b>	<b>3.75</b>	<b>0.47</b>	<b>Always</b>
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*Legend: 3.50-4.00 Always; 2.50-3.49 Sometimes; 1.50-2.49 Often; 1.00-1.49 Never*

Table 3 evaluates various statements related to preventive actions, readiness, and being informed. A clear understanding of environmentally responsible behavior in attitude results in a high level of “Always” with a weighted mean of 3.75 and a standard deviation of 0.47. According to the social capital theory, relationships with others are resources that can help develop and build human capital. This theory is linked to community awareness since it educates people that disasters are not small incidents that could take one’s life. Moreover, Communication systems promote hazard event warnings, cooperation, and information exchange, allowing organizations and communities to prepare and respond, saving lives and livelihoods 7) World Meteorological Organization. (2022). [7]

**Table IV. Perceived environmentally responsible behavior in terms of Sense of Personal Responsibility**

Indicators	Mean	SD	Interpretation
1. I am responsible for my safety during any kind of disaster.	3.78	.410	Always
2. I am responsible for informing my family on their safety in the event of a disaster.	3.81	.388	Always
3. I am responsible for my school's safety and keeping them informed in the event of a disaster.	3.76	.423	Always
4. I am responsible for reminding my colleagues to participate in the drills conducted by concerned offices.	3.75	.435	Always
5. I am responsible for my colleagues to disseminate the emergency hotlines in the event of a disaster.	3.70	.480	Always
<b>Over-all</b>	<b>3.76</b>	<b>0.47</b>	<b>Always</b>

*Legend: 3.50-4.00 Always; 2.50-3.49 Sometimes; 1.50-2.49 Often; 1.00-1.49 Never*

Table 4 presents disaster information dissemination as a sense of personal responsibility. Overall, the mean score for personal responsibility is 3.76, in a high level of practice among teachers regarding environmentally responsible behavior. The standard deviation of 0.47 suggests a relatively low level of variability in response, indicating consistent practice across statements. The DepEd No. 83 series of 2011 mandates the school to conduct natural disaster mitigation measures. It also mentioned that schools are urged to involve learners, their families, and as well as their communities in disaster preparedness, as this is an excellent approach to improving their awareness of risk reduction. Drills for practice must be treated seriously as through practice, teachers will learn what to do and how to do it right. In case of an emergency, act accordingly [8].

**Table V. Perceived environmentally responsible behavior in terms of Knowledge and Disaster Awareness**

Indicators	Mean	SD	Interpretation
1. I inform parents and relatives about disaster preparedness.	3.61	.488	Highly Aware
2. I attended first aid training which is very important in disaster preparedness.	3.42	.618	Aware
3. I know that the potential risks that may cause a disaster should be determined in advance.	3.60	.491	Highly Aware
4. I need to add more knowledge on the different disasters that may occur.	3.70	.459	Highly Aware
5. It is very important to identify a contact person from outside of a disaster region to ensure communication after a disaster.	3.72	.450	Highly Aware
6. Preparing Emergency kits should be available in every house.	3.68	.467	Highly Aware
7. I see it as a waste of time applying the “duck-cover-hold” method during disasters.	3.04	1.135	Aware
8. Shutting down electricity, water, and natural gas vents at the time of evacuation is very time-consuming.	3.25	1.077	Aware
9. I must be prepared for after aftershocks/aftereffects of disaster	3.71	.476	Highly Aware
10. I know the after-disaster “meeting point” in my neighborhood.	3.70	4.53	Highly Aware
<b>Over-all</b>	<b>3.54</b>	<b>0.612</b>	<b>Highly Aware</b>

*Legend: 3.50-4.00 Highly Aware; 2.50-3.49 Aware; 1.50-2.49 Severely Aware; 1.00-1.49 Not Aware at all*

Table 5 offers an evaluation of teachers' knowledge and disaster awareness including information dissemination, attended first aid

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training, emergency contact hotlines, emergency kits, mitigation, and family reunification plans. The result indicated that the respondents are aware of attending disaster training, applying duck cover and hold, and mitigation while on the other indicators, the respondents were highly aware of information dissemination, knowledge, reunification planning, and preparation of the effects of disaster. In general, the statistical result pointed out that the mean of the result on the level of environmental behavior in terms of intention to act is sometimes with a mean of 3.54 and a standard deviation of 0.612.

Enhancing public awareness and education is crucial for reducing fatalities, injuries, and property damage caused by natural disasters. It is essential to inform individuals about any possible dangers present in their surroundings. They need to be notified about the specific preparations required before an event, actions to take during a hurricane, earthquake, flood, or any other potential disaster, and protocols to follow thereafter Murabak, et al. (2019) [9]. Moreover, One issue in educating teachers about Disaster Risk Management is their lack of appropriate competence, skills, and understanding in disaster-related topics. Continued disaster preparedness training and seminars are necessary, along with funding for producing and distributing training materials to instructors Gelido (2021). [10]

**Table VI. Summary Table of Environmentally Responsible Behavior**

Indicators	Mean	SD	Interpretation
Intention to Act	3.48	0.51	Observed
Locus of Control	3.70	0.47	Observed
Attitudes	3.75	0.47	Observed
Sense of Personal Responsibility	3.76	0.47	Observed
Knowledge and Disaster Awareness	3.54	0.612	Observed

The summary table, which ranges in mean score from 3.48 to 3.76, presents indicators of environmentally responsible behavior. It scores 3.70 on a mean scale, meaning they generally believe they have control over the impact of the environment. The average score for attitudes about environmental responsibility is 3.75. The mean score of 3.76 indicates a strong sense of personal responsibility. At 3.54, the mean score for knowledge and awareness of disasters is generally strong. In general, the participants demonstrate strong environmentally responsible behaviors.

**Table VII. Level of respondent's Disaster Preparedness in terms of Assessment and Planning**

Indicators	Mean	SD	Interpretation
1 I find that our school has a Contingency Plan, i.e. Preparedness Plan turned into response actions when a disaster strikes.	3.50	.502	Highly Prepared
2. I find that our school conducts a risk assessment to identify the potential hazards that could affect your school.	3.51	.539	Highly Prepared
3 I find that our school is an emergency-prepared one.	3.54	.500	Prepared
4. I plan together with the appointed focal person	3.44	.571	Prepared
5. I find that our school evaluates the physical infrastructure of the school as well as the available disaster preparation resources.	3.52	.520	Highly Prepared
<b>Over-all</b>	<b>3.50</b>	<b>0.526</b>	<b>Highly Prepared</b>

**Legend:** 3.50-4.00 Highly Prepared; 2.50-3.49 Prepared; 1.50-2.49 Not Prepared; 1.00-1.49 Not Prepared at all

Table 6 evaluates disaster preparedness in terms of assessment and planning of schools where teachers are, such as the contingency plan, identifying potential hazards, planning with a focal person, and evaluating physical infrastructure. The data revealed that the school where the teachers are prepared about indicator 3 "I find that our school is an emergency-prepared one", and indicator 4 "I plan together with the appointed focal person" with a weighted mean of 3.54 and 3.44 respectively. The general results of descriptive statistics revealed that school preparedness is highly prepared about the preparedness with a mean of 3.50 and a standard deviation of 0.526. The DepEd conducts contingency planning annually to efficiently prepare for, respond to, and recover from disasters as rapidly as possible. This addresses the vulnerabilities and continuity of education in the aftermath of natural and man-made disasters and emergencies.

**Table VIII. Level of respondent's Disaster Preparedness in terms of Physical and Environmental Protection**

Indicators	Mean	SD	Interpretation
1. The school has Identified all hazards that the school and community may face.	3.47	.520	Prepared
2. The school has increased disaster resiliency in terms of infrastructure.	3.48	.557	Prepared

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3 The school has identified potential arrangements and assets that can directly minimize the associated threats such as hazardous material removal like trees.	3.45	.500	Prepared
4. The school has available DepEd DRRM manual to the teachers and students for awareness of disaster.	3.42	.618	Prepared
5. The school has available fire extinguishers on each level/floor of the buildings.	3.56	.516	Highly Prepared
<b>Over-all</b>	<b>3.47</b>	<b>0.542</b>	<b>Prepared</b>

*Legend: 3.50-4.00 Highly Prepared; 2.50-3.49 Prepared; 1.50-2.49 Not Prepared; 1.00-1.49 Not Prepared at all*

Table 7 offers an evaluation of disaster preparedness in terms of physical and environmental protection of schools where teachers are and that includes disaster resiliency, availability of DRRM manual, and fire extinguishers. The data revealed that the school where the teachers are highly prepared about indicator 5 “The school has available fire extinguishers on each level/floor of the buildings.”, with a mean of 3.56 respectively. The general results of descriptive statistics revealed that the school is prepared for physical and environmental protection with a mean of 3.47 and a standard deviation of 0.542. The DepEd Order No. 23, s. 2015 identifies different hazards and specific incidents involving learners and personnel in schools. Using the school watching checklist as a starting point for identifying hazard factors and/or at-risk places inside the school. Furthermore, it is also strengthening disaster prevention, mitigation, and preparedness. One of the main methods to manage the vulnerability inside and outside of school. [11].

**Table IX. Level of Respondent’s Disaster Preparedness in terms of Response Capacity and Development**

Indicators	Mean	SD	Interpretation
1. The school has created a command system for Disaster Preparedness.	3.52	.520	Highly Prepared
2. The school has an identified evacuation area near the school vicinity.	3.59	.493	Highly Prepared
3. The school has installed safety signage to be followed in case of a disaster.	3.50	.521	Highly Prepared
4. The school has at least two necessary and functioning equipment in case of a disaster (fire extinguisher, megaphone, handheld radio, bell, generator, etc.)	3.54	.500	Highly Prepared
5. The school has provided and posted emergency hotlines and evacuation plans for each classroom.	3.55	.499	Highly Prepared
<b>Over-all</b>	<b>3.54</b>	<b>0.506</b>	<b>Highly Prepared</b>

*Legend: 3.50-4.00 Highly Prepared; 2.50-3.49 Prepared; 1.50-2.49 Not Prepared; 1.00-1.49 Not Prepared at all*

Table 9 shows the data on the disaster preparedness of teachers in response capacity development such as the command system, identified evacuation, installed safety signages, disaster equipment, and posted emergency hotlines. The obtained mean for all the items in the disaster preparedness ranged from 3.50 to 3.59 with a standard deviation of 0.50 resulting in the school being highly prepared. The education program should focus on teaching practical skills and knowledge, including creating an evacuation plan, compiling emergency contact numbers, designating a safe location, understanding evacuation routes, acquiring a battery-powered radio, and preparing a three-day water supply Dean (2020) [12].

**Table X. Level of Respondent’s Disaster Preparedness in terms of Practicing, Monitoring, and Improving**

Indicators	Mean	SD	Interpretation
1. The school has always prepared a classroom go-bag and class list.	3.39	.598	Prepared
2. The school disseminates information to follow instructions for the building evacuation.	3.50	.502	Highly Prepared
3. The school encourages the teachers to participate in developing the DRRM plan.	3.49	.502	Prepared
4. The school provides teacher training in areas such as first aid, basic life support, and fire safety.	3.47	.520	Prepared
5. The school implemented an effective early warning system, utilizing national and local protocols and social media to alert learners and personnel of potential hazards and emergencies.	3.48	.574	Prepared
<b>Over-all</b>	<b>3.46</b>	<b>0.539</b>	<b>Prepared</b>

*Legend: 3.50-4.00 Highly Prepared; 2.50-3.49 Prepared; 1.50-2.49 Not Prepared; 1.00-1.49 Not Prepared at all*

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Table 10 evaluates the disaster preparedness of teachers in practicing, monitoring, and improving, such as having the classroom go bag, following instructions in evacuating a building, training, and seminars, and social media alerts to learners and personnel of potential emergencies. The data revealed that the school where the teachers are highly prepared about indicator 2 “The school disseminates information to follow instructions for the building evacuation.”, with a weighted mean of 3.50 and a standard deviation of .502. The general results of the descriptive statistics revealed that the teachers practicing, monitoring, and improving are prepared with a mean of 3.46 and a standard deviation of 0.539. The school and other governmental entities are accountable for ensuring the safety of kids. Regular practice of disaster preparedness is crucial to ensure the continuity of programs. Schools teach and integrate it into the curriculum for the best effective preparation. Disaster preparedness includes a comprehensive strategy, practical training, resource storage, safety infrastructure, and designated evacuation areas.

**Table XI. Summary Table of Disaster Preparedness**

Indicators	Mean	SD	Interpretation
Assessment and Planning	3.50	0.526	Observed
Physical and Environmental Protection	3.47	0.542	Observed
Response Capacity and Development	3.54	0.506	Observed
Practicing, Monitoring, and Improving	3.46	0.539	Observed

The overall scores of the respondents range from 3.46 to 3.54, indicating moderate to high levels of preparedness for disasters across every variable. A moderate degree of response variability can be seen in the standard deviations, which range from 0.506 to 0.542. This shows that while there is an overall trend toward good preparedness for disasters. While the slightly lower ratings in other areas suggest an environment for growth in evaluation, planning, protection, and continuous improvement activities, the highest score in response capacity and development indicates a significantly stronger focus on developing the ability to respond to disasters.

The overview highlights the significance of comprehensive disaster preparedness in schools, including physical and environmental protection, enhancing response capacity, and regular practice, monitoring, and improvement. Schools are well-equipped with fire extinguishers, evacuation strategies, safety signs, and emergency contact numbers. Consistent training and drills are essential components of an effective preparation strategy. Schools can improve their resilience and capacity to address disasters by identifying and incorporating these elements into their policies and curricula.

**Table XII. Test of Correlation between Environmentally Responsible Behavior and Disaster Awareness**

	Assessment and planning	Physical environmental protection	and Response development	capacity Practicing, monitoring, and improving
	r-value	r-value	r-value	r-value
Intention to act	.393**	.441**	.358**	.356**
Locus of control	.362**	.363**	.296**	.292**
Attitudes	.389**	.378**	.432**	.372**
Sense of personal responsibility	.432**	.370**	.411**	.355**
Knowledge & Disaster Awareness	.532**	.587**	.504**	.538**

\*\* . Correlation is significant at the 0.01 level (2-tailed)

Table 12 presents the result of the correlation analysis between the environmentally responsible behavior of teachers and disaster preparedness of teachers. The computation was based on a 2-tailed test on a 0.01 level with the table value of 0.254. In general, all r-values appear to be greater than the t-value of 0.254, meaning there is a significant correlation between the independent variables, environmentally responsible behavior, and the study's dependent variables, disaster preparedness. This means that the more respondents become environmentally responsible, the more they become prepared for disasters.

To specify, it can be seen that the Teachers' Intention Act has with low positive correlation with assessment and planning, response capacity development, and practicing monitoring and improvement and a moderate correlation with physical and environmental protection. This means that when the intention to act and the dependent variables tend to go up in response to one another, the relationship is not very strong. Meanwhile, the Locus of Control attained a low positive correlation with the dependent variables. On the other hand, the attitude becomes moderately correlated only with the response capacity development, and the rest is still low positive. Regarding a Sense of Personal Responsibility, there is a moderate positive correlation between assessment planning and response capacity development. Lastly, only Knowledge and disaster awareness appear to be moderately correlated

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with all the dependent variables.

These results conclude that all behaviors are correlated with the level of disaster preparedness of the teachers. However, there is particular behavior, knowledge, and disaster awareness, that raises the disaster preparedness level of the teachers. To improve disaster preparedness, stakeholders should create and implement education and awareness campaigns, promote positive behaviors toward preparedness, provide individuals with resources and tools, and encourage active involvement in planning and decision-making processes. Adapt interventions to address different challenges and motivators for diverse groups of people or communities. Continuously monitor and assess training programs to identify areas for improvement and seek feedback from participants. By addressing these ideas and utilizing positive correlations, stakeholders may collaborate to improve disaster preparedness at both the individual and community levels, resulting in increased resilience in the event of disasters. This method will help individuals and communities take control of their disaster preparedness and instill a sense of responsibility and authority in the face of disasters.

Rita Istiana's (2020) study on intelligence in nature and responsible environmental Behavior revealed that her determination was 43.56%. She has also found that naturalist intelligence influences environmentally responsible behavior. [13] According to the study by Suhardin (2021) [14], intelligence is closely linked to catastrophe preparedness. Environmental responsibility involves being prepared to address various natural calamities that may affect oneself, their family, community, and the environment.

Moreover, in the study by Akbar (2020) [15], it was stated that If research subjects possess a high disaster risk perception, it indicates that the community places trust in the fact that their living area is prone to natural disasters. This leads to a sense of high responsibility, control, acceptance, and response towards disaster risk, ultimately motivating the community to prepare for disasters.

### **IV. CONCLUSION**

The research findings prove that environmentally responsible behavior has a significant relationship with the disaster preparedness of teachers. This study recommends: Enhancing a Disaster Preparedness Committee or Crisis Management Committee composed of the school head, teachers, and PTA officers and identifying their duties and responsibilities in terms of disaster preparedness. Enhance a simple and clear DRRM plan suited to the school's risks and vulnerabilities. Strengthen regular or scheduled drills and training to familiarize learners, educators, and employees with emergency procedures. Provide emergency supplies such as first aid kits, flashlights, batteries, bottled water, and non-perishable food. Strengthen disaster awareness into the school curriculum to ensure that learners understand the possible hazards as well as how to mitigate them. Regularly assess and update the school's DRRM planning to reflect on changes in the school environment, such as infrastructure improvements and modifications.

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### REFERENCES

- 1) Ready. (2022). Coping with Disaster. U.S. Department of Homeland Security
- 2) DepEd Order No. 48, series 2012. (2012). Quarterly Conduct of The National School-Based Earthquake And Fire Drills
- 3) DepEd Order No. 37, series of 2015. (2015). The Comprehensive Disaster Risk Reduction and Management (DRRM) in Education Framework. Department of Education.
- 4) Republic Act 10121. (2010). An Act Strengthening the Philippine Disaster Risk Reduction and Management System, Providing for The National Disaster Risk Reduction and Management Framework and Institutionalizing the National Disaster Risk Reduction and Management Plan, Appropriating Funds Therefor and For Other Purposes.
- 5) Juanita, Farida., Suratmi Suratmi, & Insi, L. M. (2017). The Effectiveness of Basic Training on Disaster Management Pilot Program for Disaster Preparedness Community. *Indonesian Nursing Journal of Education and Clinic*, 2 (2), 126-135. doi: <http://dx.doi.org/10.24990/injec.v2i2.157>
- 6) Kelly, M. (2010). Fire Drills: How to be Prepared and Lead During a Fire Drill. New York Times Company. New York.
- 7) World Meteorological Organization. (2022). Warning Dissemination and Communication.
- 8) DepEd Order No. 83, series 2011. (2011). Disaster Preparedness Measures for Schools. Department of Education.
- 9) Murabak, et al. (2019). The Effectiveness of Disaster Prevention and Mitigation Training for Students in disaster-prone areas. *IOP Conference Series: Earth and Environmental Science*. doi: 10.1088/1755-1315/235/1/012055
- 10) Gelido, Reynaldo T., & Shielmyn Kate J. (2021). Disaster Risk Reduction Management Plan of Secondary Schools in Sta. Barbara, Philippines. *ASEAN Multidisciplinary Research Journal*, 9(1), 16-40
- 11) DepEd Order No. 23, s. 2015. (2015). Student-Led School Watching and Hazard Mapping
- 12) Dean, Kyne, Cineros, Leslie, Delacruz, & Josue, Lopez. (2020). Empirical evaluation of disaster preparedness for hurricanes in the Rio Grande Valley. *Elsevier*, 11, 100061. doi: <https://doi.org/10.1016/j.pdisas.2019.100061>
- 13) Istiana, R., Sunardi, O., Herlani, F., Ichsana, IZ, Rogayan Jr., DV, Rahman, MM, Alamsyah, and naturalist intelligence: Biology Learning to Support Sustainability. *Biosphere: Tadris Journal of Biology*, 11(2), 87–100
- 14) Suhardin (2021). Disaster Preparedness Sumatra Barat Community the Relationship with Natural Intelligence, Self Efficacy, and Disaster Literacy. *Budapest International Research and Critics Institute-Journal*.
- 15) Akbar Z., Ratna Dyah Suryaratri., and Gungum Gumelar. (2020). Disaster Risk Perception and Household Disaster Preparedness: Lesson Learned from Tsunami in Banten. *Research Gate*. 10.1088/1755-1315/448/1/012099