

RESEARCH ARTICLE

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## ASSESSING DISASTER PREPAREDNESS AND AWARENESS IN DISTANCE LEARNING EDUCATION PROGRAM

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### ABSTRACT

Planning and preparing for an emergency can help keep individuals, families, and businesses safe when a disaster strikes. This research assessed the level of preparedness and awareness of high school students as to the various disasters and calamities namely: fire, flood, typhoon, an earthquake. Reducing risk and vulnerability to disasters requires peoples' understanding and awareness of how they best protect themselves and their livelihood. According to Tuladhar *et al.* knowing and understanding a way to prepare for a disastrous event is vital for everybody to prevent additional damage to our lives. Results show that students are well knowledgeable before a disaster occurs, however, in terms of during and after the disaster they fall in the category of the knowledgeable. This implies that students were not sure what to do and what would be their first step if a disaster would occur. The results also suggest that there's a need to plan for educational awareness in the face of expected hazards and threats. School and community must strengthen their partnership in providing risk reduction and resilience through education.

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### INTRODUCTION

Disaster awareness refers to measures taken to prepare for and reduce the effects of disasters. That is, to predict and - where possible - prevent disasters. Planning and preparing for an emergency can help keep individuals, families and businesses safe when a disaster strikes. The harmful effects of Climate Change manifest not only in the environments, but also for our youth and our next generation. Disasters are now inevitable hence, the safety of every individual is a primary concern in every part of the world. According to the United Nations International Strategy for Disaster Reduction, disaster is a serious disruption of the functioning of a community or a society causing widespread human, material, economic or environmental losses, which exceed the ability of the affected community or society to cope, using its own resources (UNISDR, 2009). Similarly, the World Health Organization describes disaster as "as any occurrence that causes damage, ecological disruption, loss of human life, deterioration of health and health services, on a scale sufficient to warrant an extraordinary response from outside the affected community or area (WHO, 2002).

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In the Philippines, the K-12 decentralization of education and curriculum reforms, provide opportunities for effectively mainstreaming disaster and risk reduction in the education sector. Further, DepEd Order 37, s. 2015. "The Comprehensive Disaster Risk Reduction and Management (DRRM) in the Basic Education Framework, stipulates the following objectives. Protect learners and education workers from death, injury, and harm in schools; Plan for educational continuity in the face of expected hazards and threats; Safeguard education sector investments; and Strengthen the risks reduction and resilience through education. However, the future of disaster preparedness and response is dependent on the next generation's knowledge, and inclusion in the disaster process. According to Lekies and Wells, people are fixed on a particular path toward an outcome, and they will stay on this path unless a turning point occurs that sets them on a different trajectory. Accordingly, youth need to be set on a path that enables them to protect themselves. Based on the Climate Change and Disaster Risk Assessment of the Philippines by Asian Development Bank they emphasized the "need for effective government policies" in the country with regards to vulnerability. Moreover, the vulnerability is influenced first by governance aspects such as the quality of infrastructure, the implementation of building codes, and good urban and land use planning. Second, vulnerability is the influence of the state

of environmental degradation and thirdly by the resilience of rural livelihoods (ADB, 2012). Furthermore, the importance of being prepared, the role of the youth, and current preparedness resources need to be considered. Hence, the key to training and catastrophe chance reduction is shared and the usage of data and knowledge in a productive way thru awareness-raising and educational initiatives so that humans make knowledgeable choices and take action to make sure their resilience to disasters. Distance learning students or home schooled students seldom participate school's disaster drill, hence it is vital to measure their awareness so that schools can provide precautionary measures.

**Conceptual Framework:** This study is anchored with the theory of Albert Bandura's Social Cognitive theory, it is based on the idea that people learn by observing others. These learned behaviors can be central to one's personality. Each behavior witnessed can change a person's way of thinking (*cognition*). Similarly, the environment one is raised in may influence later behaviors. Albert Bandura is a behavioral psychologist credited with creating social learning theory. He agreed with B.F. Skinner's theory that personality develops through learning; however, he disagreed with Skinner's strict behaviorist approach to personality development. In contrast to Skinner's idea that the environment alone determines behavior, Bandura (1990) proposed the concept of *reciprocal determinism*, in which cognitive processes, behavior, and context all interact, each factor simultaneously influencing and being influenced by the others. According to Venny (2019) theory provides a framework for understanding how people actively shape and are shaped by their environment. In particular, the theory details the processes of observational learning and modeling, and the influence of self-efficacy on the production of behavior. In Social Cognitive Theory individual learn by observing his/her environment. Hence, this is a great venue for adopting this theory for the students in distance learning. Figure 1 shows the level of awareness of the students in terms of fire, flood, earthquake and typhoon disaster. Further, for the process, was the dissemination of questionnaires, data gathering, data analysis and data interpretation. The output of the study was the proposed action plan for the distance learning education students.

### Objective of the Study

Research has shown the importance of making ready for a disaster before it happens. Communities and people will relieve the quantity of money spent, properties broken, and lives lost because of a natural disaster or emergency. Involving vulnerable populations, who will usually be severely suffering from these events, will have an effect on their resilience and psychological well-being. This study assessed the disaster preparedness and awareness of distance learning students in terms of fire, flood, typhoon and earthquake disasters.

### RESEARCH METHODOLOGY

This study utilizes the descriptive research method wherein it attempts to assess the disaster preparedness and awareness of distance learning education students. According to Shields and Rangarajan (2013) descriptive research is used to describe characteristics of a population being studied. It does not describe what caused a situation. In this study descriptive research was adopted to measure the disaster awareness of the distance learning students. The respondents of the study were 62 students from distance learning education program. Data

were gathered after the respondents completed the questionnaire. Moreover, data were interpreted using percentage, weighted mean and frequency distribution.

### RESULTS AND DISCUSSION

**Awareness in Fire Disaster:** The prevention of destructive fires is an integral element of land-use policies and fire management strategies. Fire prevention must address a broad range of elements and sectors of school institution, society, natural resources and environmental management, land-use planning, and technology development. The graph shows the preparedness and awareness before, during and after fire disaster of the students in distance learning education program.

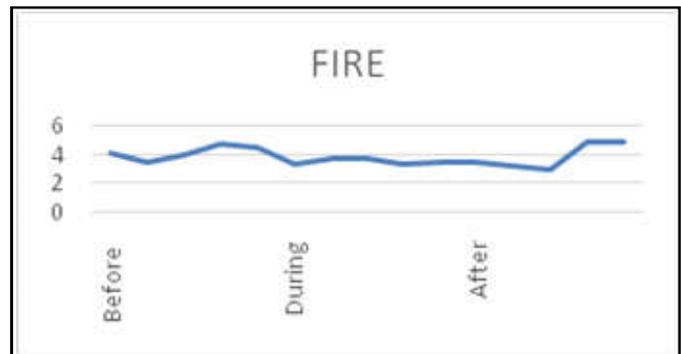


Figure 1.

The finding entails that students were well knowledgeable on what to do before, during and after fire. This is an indicator that students in distance learning education are equipped with the knowledge and awareness when fire disaster arise. This is also an implication that students were guided on their journey with their teachers on the awareness fire disaster. In a study by Nduku (2008) on school calamity mindfulness and readiness out in the open optional schools in Nyandarua District uncovered that the dimensions of debacle mindfulness and readiness were not exactly tasteful. Educator's dimensions of mindfulness were observed to be key determinants of understudies' dimensions of mindfulness implying that understudies get such information from instructors. Moreover, even though the students were well knowledgeable about fire disaster, it is also pertinent to fully engaged them on an activities, workshop, etc, to maximize the preparedness of the students awareness in terms of fire safety.

**Awareness on Flood Disaster:** Communities in some areas face the regular threat of destructive climatic events. The devastation caused by severe flooding leaves families destitute. It destroys homes, cultivated land, stored food, livestock and even human life.

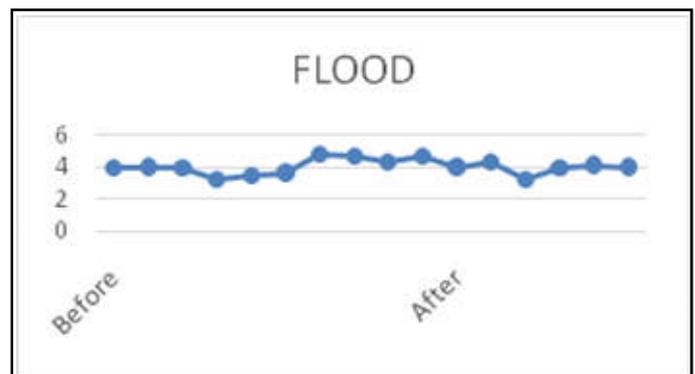


Figure 2.

The preparedness and awareness of the students before, during and after flood disaster. Based on the findings, the competence of the students in dealing the above scenarios, got an overall weighted mean of 4.06 which verbally describe as well knowledgeable. This is an indication that students in distance learning education are aware and prepared to deal with floods related disasters. This entails that students, are not fully aware on what to do in terms of electricity related functions hence, they are at risk on the possibilities that they might be electrocuted. Therefore, it is advisable that school must reiterate to the parents and students the safety guidelines and precautionary measures when calamity would arise.

**Awareness on Typhoon Disaster:** World Vision’s commitment towards communities goes beyond assistance and reconstruction in emergency situations and includes preventive programming. It is important to do advance planning and adopt preventive measures to mitigate the destructive power of tropical cyclones and other natural disasters.

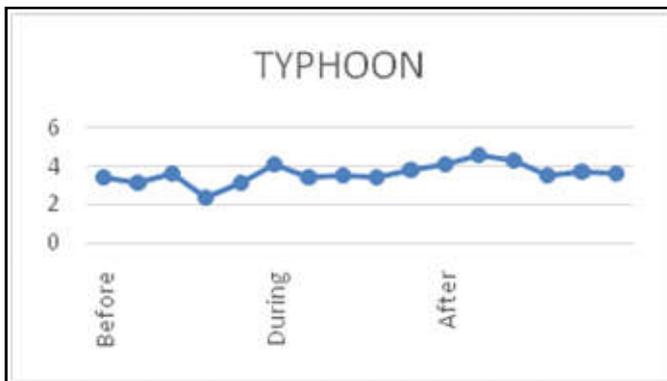


Figure 3.

According to the findings presented, the majority of the students were well knowledgeable in terms of before, during and after typhoon arise. This is an indication that students were fully guided on what to do before, during and after typhoon arise. However, the data also entails that students were not aware of the manifestation before the occurrence of typhoon. Moreover, they are not also aware of where to evacuate if it's needed. Therefore, school and community must collaborate for the safety of the students. Further, community and schools must have an evacuation area for all the faculty, students and staff. Overall, the respondent preparedness and awareness in terms of the typhoon was above knowledgeable. Hence, the respondents are considered prepared and ready to handle things up when typhoon arises. World's 21<sup>st</sup> Century: Disaster and Risk Reduction, Geneva, July 9, 1999) noticed that the conduct and reaction of individuals and the network to debacle is central in the arranging of crises and disaster. This implies that school as the author of the future of the student must provide precautionary measures to guide distance learning education students to be prepared all the time when typhoon arise.

**Awareness on Earthquake Disaster:** The effects of earthquake vary upon the magnitude and intensity. Earthquakes strike suddenly, without warning, and they can occur at any time of the year, day or night. School awareness program on earthquake disasters and preparedness is vital toward the safety of every individual. The Graph shows

the awareness of the students before, during and after earthquake disaster. Based on the results, students were well knowledgeable in terms of preparedness and awareness before, during and after an earthquake. This implies that the respondents were not aware on the risk that might bring if they do not secure the heavy furniture and objects. Moreover, students were very well knowledgeable in terms of how to protect themselves, in terms of an earthquake occurs in the school or in their house. According to Ministry of Education (2008) at the point when students are inside the classroom and a quake happens, they should hide under work areas or tables. They ought not frenzy or endeavor to surge outside or close windows. Where departure is vital students ought to have unmistakably expressed (standing) techniques on the most proficient method to move out of the structures.

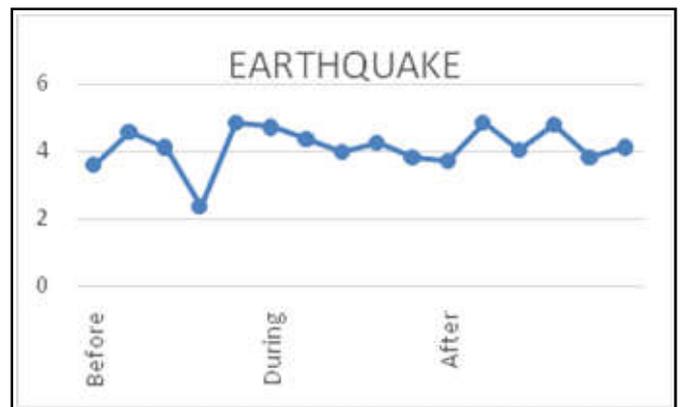


Figure 4.

On the off chance that students are in the open and a seismic tremor happens, they should move far from structures since they can be struck by falling building materials and other rubble. Thus, preparedness and awareness of the respondents were above knowledge and they are expected to protect themselves.

**Disaster Preparedness:** Figure 5. Presents the disaster preparedness of the students in terms fire, flood, typhoon and earthquake disaster. The Graph shows the preparedness of the students as to the above disasters. Disasters are inevitable in many forms and ways, hence once must be prepared to disaster when exist.

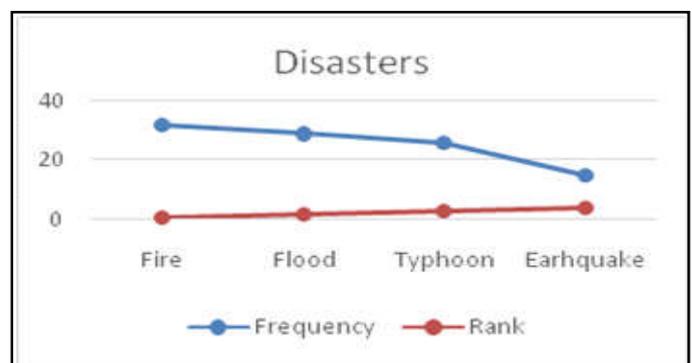


Figure 5.

The data shows fire disaster got the highest frequency of 32 percent compared to earthquake disasters. This entails that students were well knowledgeable on what to do when fire disaster arise either at school or elsewhere. Earthquake disaster

on the other hand got the lowest frequency, with 15 percent, this implies that students are not we're not knowledgeable when there is an earthquake. Thus, students are at risk on the possibilities that they might be harmed when such disaster occur. Therefore, there must be an appropriate action regarding on this matter, school must take responsibilities for this, distance learning education students must also provided with such awareness on different disaster before, during and after.

### Conclusion and Recommendations

The purpose of this study was to measure disaster preparedness and awareness of the students in distance learning education based on the four known disasters happening in our society. And based on the findings, the following conclusions can be drawn from this study: The students were well knowledgeable in terms before, during and after disaster arise. This is an indication that the respondents are well equipped with the knowledge and awareness on how to protect themselves when calamity happens. According to (Waugh, 2000), Readiness is normally seen as comprising of exercises went for enhancing reaction exercises and adapting abilities. Notwithstanding, accentuation is progressively being put on recuperation readiness—that is, on arranging not just so as to react adequately amid and following catastrophes yet additionally so as to effectively explore difficulties related with short-and longer-term recuperation. This is an indication that, even though that students were well knowledgeable on how to be safe in terms of calamities, they still need to improve and enhance their knowledge about the safety precaution when disaster happens. Therefore, school must be able to provide constant training and awareness to the students in distance learning education about the current practices when dealing with different disasters. As improvement never stops, training and activities relating to disaster preparedness and awareness must also be improved and prioritized.

Recommendations of the study for effective disaster awareness and preparedness of distance learning education students the study outlines the following recommendations:

- a) School must provide activities that increase the awareness of the students to be better prepared in responding to disaster. Suggest activities are lecture and video presentation on how to protect oneself from common hazards by knowing basic actions that are necessary.
- b) Include the distance learning students in evacuation drill in school or in community. School must maximize its partnership to its community for the safety of the students.
- c) School personnel and distance education, parents ought to provide necessary information and material support to schools to promote disaster preparedness to the students.

Suggestion for further research Putting in mind the limitations and delimitation's of the study, the researcher suggest that: A similar study needs to` be carried out with different respondents including teachers and school administration to ensure the safety of the students and the like.

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