



Are ninth-grade students aware and prepared when disaster strikes?

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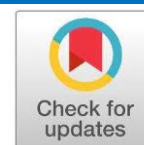
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Abstract: Awareness and preparedness are good preventive practices that can lessen the impacts of natural and man-made hazards. This descriptive cross-sectional study ascertained the extent of awareness and preparedness of ninth-grade students in terms of natural hazards and man-made disasters. The study involved 103 respondents in two public secondary schools in Zambales, Philippines. The study found out that the students have a high self-reported awareness of the different disasters, and they assessed themselves to be often prepared for the occurrences of the different disasters. The students' disaster awareness had a significant moderate correlation with disaster preparedness. The study recommends that the students be exposed to several disaster awareness and preparedness programs to develop their understanding and preventive practices. The students' awareness of several disasters may be sustained and enhanced through various media like audio-visual presentations, posters, and IEC (information, education, and communication) materials. As students become more aware of disasters, they become more prepared for disasters. Hence, the environmental education curriculum can accentuate disaster science and management teaching to young learners as they are crucial actors in disaster preparedness, response, and mitigation.

Keywords: awareness; disaster education; mitigation; preparedness; Philippines.

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INTRODUCTION

Disaster is a consequence of an ecological event or human-made conflict that compels significant turmoil, injury, physical damage, and economic disruption (Rogayan & Dollete, 2020). Disasters may be classified into two, human-made and natural hazards. Human-made disasters include fire and flash floods, while natural hazards include earthquakes, volcanic eruptions, typhoons, and tsunamis. Such disasters significantly impact human lives and properties and can be considered the most threatening events for human beings. Thus, people should always be prepared and adapt to climatic changes and ecological disturbances.

The occurrence of natural hazards cannot be stopped, but their damage and destruction can be reduced through mitigation measures. Awareness and preparedness are good preventive practices that can lessen the impacts of disasters. In recent years, natural hazards' social and economic costs have increased in response to rapid urbanization and shifts in land use patterns, mobility and unregulated industrialization, environmental devastation, and global climate change (Rogayan & Dollete, 2020).



The World Risk Report ([WRR, 2021](#)) indicated that the Philippines ranked eighth globally in disaster risk with an index value of 21.29. In Asia, the Philippines is one of the five countries which fall into the highest risk category apart from Brunei Darussalam (world risk index, WRI, 22.77), Bangladesh (WRI 16.23), Cambodia (WRI 15.8), and Timor-Leste (WRI 15.75). Exposure to earthquakes, cyclones, floods, drought, and sea-level rise (42.69 risk index points) is very high in the country. The country's vulnerability (50.11 risk index points), susceptibility (28.63 risk index points), and lack of coping capacities (82.14 risk index points) are high ([WRR, 2021](#)). Meanwhile, the lack of adaptive capacities (39.56 risk index points) is at the medium level ([WRR, 2021](#)). Since the country is prone to natural hazards due to its geographical position and geology, the public needs to be aware of the possibility of numerous disasters occurring frequently and how to deal with them ([Rogayan & Dollete, 2020](#)).

In the Philippines, several agencies are responsible for disaster monitoring, preparedness, management, and disaster recovery. These government agencies include the Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) and the Philippine Institute of Volcanology and Seismology (PHILVOCS) under the Department of Science and Technology (DOST), the Philippine National Disaster Risk Reduction and Management Council (NDRRMC), the Department of National Defense - Office of Civil Defense (DND-OCD), the Department of Interior and Local Government (DILG), the Department of Social Welfare and Development (DSWD), and other humanitarian organizations which provide recovery services. The media is a crucial conduit for emergency information from these agencies to the community ([Australian Broadcasting Corporation International Development \[ABCID\], 2014](#)).

The Philippine Department of Education (DepEd) and Commission on Higher Education (CHED) also play a vital role in developing learners to be disaster-aware and disaster-ready. The role of educational institutions is very significant to create environmentally aware and eco-conscious learners ([Rogayan & Nebrida, 2019](#)). Various stakeholders should collaborate in exerting more effort to enhance students' environmental literacy in the Philippines ([Gatan et al., 2021](#)). Every year, schools conduct disaster drills such as earthquake and fire response drills for the students to be aware and prepared. These drills are in accordance with DepEd Order 48 s. 2012 on the quarterly conduct of the national school-based earthquake and fire drills ([Department of Education, 2012](#)). Such practice of the schools helps develop awareness and understanding about the students' response during disasters.

The enactment of the Republic Act 10121 or the Philippine Disaster Risk Reduction and Management Act of 2010 likewise requires DepEd and CHED to mainstream disaster risk education in school curricula. Hence, learning institutions must train both educators and learners to reduce and address risks and hazards induced by natural hazards. Such role of educational institutions is reflected in previous studies done globally ([Hosseini & Izadkhah, 2020](#); [Kamil et al., 2020](#); [Kastolani & Mainaki, 2018](#); [Luetz & Sultana, 2019](#); [Rogayan & Dollete, 2020](#); [Proulx & Aboud, 2019](#); [Shah et al., 2018](#); [Shah et al., 2020](#)). Furthermore, educational institutions and children are considered vulnerable in times of disasters ([Ocal & Topkaya, 2011](#)),

primarily because they are physically and emotionally sensitive (Khan, Rana, Nawaz & Waheed, 2020). School, therefore, plays a crucial role in disaster preparedness and post-disaster rehabilitation (Khan, Rana, & Nawaz, 2020).

Locally, minimal studies have been done on students' disaster awareness and preparedness in junior high school (Arcayera, 2017; Fernandez & Shaw, 2015; Ventura & Madrigal, 2020). Due to the limited studies in the local context on students' disaster awareness and preparedness specifically in junior high school, this study was conducted. The present research gauged the awareness and preparedness level of ninth-grade students in two public schools in Zambales, Philippines, as baseline data for a proposed disaster management program.

1. Disaster Awareness

Disaster awareness is the extent of understanding and education of an individual regarding disasters, including their risks, hazards, and possible destruction. Globally, empirical studies have been conducted regarding people's disaster awareness (Dorasamy et al., 2017; Lee & Lee, 2019). These studies have focused on awareness of landslides (Alcantara-Ayala et al., 2018). Disaster awareness studies also involved various sectors such as informal construction stakeholders (Chmutina et al., 2018), primary schools (Herdiansyah et al., 2020), house surgeons in dental colleges and hospitals (Indiran, 2017), nursing students (Park, 2019), and heritage sites (Pavlova et al., 2017).

In the Philippine context, several studies on disaster awareness were conducted. The scholarly papers focused on awareness of disaster and disaster risk reduction management in a highly urbanized city (Asio, 2021), universal banks (Cordevilla, & Caelian, 2020), children with autism spectrum disorder (Fino et al., 2017), senior high school students (Mamon et al., 2017), maritime students (Panase, & Doruelo, 2020), barrio communities (Rogayan & Dollete, 2020; Soriano, 2019); and coastal communities (Valenzuela et al., 2020). However, the present study focused on the ninth-grade students' disaster awareness at the junior high school level.

2. Disaster Preparedness

Disaster preparedness refers to an individual's preventive practices to minimize the effects of natural hazards or human-made disasters. Extensive literature has been published internationally regarding people's disaster preparedness in Asia (Alsalem & Alghanim, 2021; Alyami et al., 2021; Das, 2018; Hoffmann, & Muttarak, 2017; Munasinghe, & Matsui, 2019), Europe (Goniewicz, & Goniewicz, 2020), and America (Tkachuck et al., 2018). Literature reviews on disaster preparedness were also conducted focusing on health professionals and support staff (Gowing et al., 2017; Labrague et al., 2018).

In the Philippines, several studies looked into the public's disaster practices (Abante, 2019; Domingo, & Manejar, 2018; Matthies, 2017; Ravago et al., 2020; Vicario-Merino et al., 2019). Disaster preparedness studies also involved school teachers (Salita et al., 2020), barrio people (Rogayan & Dollete, 2020), local governments (Dariagan et al., 2021), corporations (Baynosa et al., 2021), academic libraries (Superio et al.,

2019), coastal communities (Añasco et al., 2021; Torrentira, & Makilan, 2018) and the public (Bollettino et al., 2020). However, the present study focused on Grade 9 high school students' level of disaster practices.

3. Framework of the Study

The study was anchored on the Republic Act 10121 or the Philippine Disaster Risk Reduction and Management (DRRM) Act of 2010. The law strengthens the DRRM in the country and provides baseline data for formulating policies and plans and implementing actions and measures about all aspects of DRRM. The study determined students' awareness and preparedness for disasters. The researchers used the data to craft the proposed disaster management plan for implementation in basic education schools in the Philippines.

The research ascertained the awareness and preparedness of the Grade 9 students towards disasters. It aimed to answer the following research questions: (1) What is the level of disaster awareness of the respondents?; (2) What is the level of disaster preparedness of the respondents?; (3) Is there a significant relationship between the disaster awareness and disaster preparedness of the students?; and (4) What activities can be proposed for the disaster management program?

METHOD

1. Research Design

This study employed both descriptive and cross-sectional research. Descriptive research plays a vital role in educational research, and thus it is essential to understand the nature and function of such research (Knupfer & McLellan, 1996). According to Burns and Grove (2009), descriptive research is designed to provide a picture of a situation as it naturally happens. It may be used to justify the current practice, make a judgment, and develop theories. Descriptive cross-sectional research is a research design wherein the researcher provides a detailed description of certain phenomena, circumstances, or experiences at a specific time, setting, and population.

2. Respondents

The study involved 103 ninth-grade students of two state-owned secondary schools in Zambales, Philippines. The study used comprehensive sampling wherein the researchers chose two Grade 9 classes in two public secondary schools. The demographic profile of the respondents is shown in Table 1.

Table 1. Respondents' Demographic Profile

Profile	F (N=103)	%
<i>Sex</i>		
Male	56	54.37
Female	47	45.63
<i>Age</i>		
14	34	33.01
15	44	42.72
16	17	16.50
17	6	5.83
18	2	1.94

<i>Religion</i>		
Roman Catholic	62	60.19
Iglesia ni Cristo	11	10.68
Aglipay	9	8.74
Christian	17	16.50
Seventh Day Adventist	3	2.91
Jehova's Witnesses	1	0.97

As presented in the table, out of 103 respondents, 56 (54.37%) students are males, and 47 (45.63%) are females. Although males dominated the respondents' distribution in the study, it can still be seen that there is almost an equal distribution of male and female respondents. Most (44, 42.72%) of the students are aged 15 while 34 (33.01%) students are aged 14, 17, only 2 (1.94%) students are aged 18. The typical Grade 9 students have an average age bracket of 14 to 16. As shown, most of the students are Roman Catholic (62, 60.19%). The Philippines is a Catholic-dominated country.

3. Research Instrument

The researchers directly adopted the Disaster Awareness and Preparedness Questionnaire (DAPQ) developed by Rogayan and Dollete (2020). The researchers made no modifications to the tool used. The questionnaire comprises the following parts, the demographic profile of the students (Part I), the disaster awareness level (Part II), and disaster preparedness level (Part III). The demographic profile of the respondents includes their sex, age, and religion. The disaster awareness questionnaire has 6 items that asked the students' awareness in the different types of disasters: earthquake, strong typhoon, landslide, flood, fire, and volcanic eruption. The disaster preparedness questionnaire contains the different types of disasters with different indicators. Preparedness on earthquake (7 items), strong typhoon (10 items), landslide (5 items), fire (7 items), flood (6 items), and volcanic eruption (5 items) were asked. There is a total of 48 items included in the survey questionnaire. The different indicators measured the awareness and preparedness of the students and served as the basis for the proposed disaster management program.

The adopted instrument has the following Cronbach's alpha values: Disaster awareness (0.88); Disaster preparedness in terms of strong typhoon (0.76), landslide (0.79), earthquake (0.81), fire (0.83), flood (0.86), and volcanic eruption (0.80). The overall Cronbach's alpha value is 0.83 which describes a good internal consistency of the instrument.

4. Data Collection

After formulating survey questionnaires, the researchers sought the approval of the school heads of the target schools. Before data collection, the researchers also secured informed consent from the parents and participants' assent from Grade 9 students. The researchers then explained the survey tool to the respondents before answering for about 15 to 20 minutes, then retrieved the questionnaires on the same day. The researchers used the baseline data gathered from the survey in crafting the proposed disaster management program.

5. Data Analysis

The researchers used the combination of SPSS version 20 and MS Excel 2013 to process data. The frequency and percentage distribution were employed to determine the frequency counts and percentage distribution of the raw scores of the respondents. The weighted mean was utilized to determine the average of the responses. The 5-point Likert scale was used in the level of disaster awareness (Very High, 4.50-5.00; High, 3.50-4.49; Moderate, 2.50-3.49; Low, 1.50-2.49; Very Low, 1.00-1.49) and level of disaster preparedness (Always, 4.50-5.00; Often, 3.50-4.49; Sometimes, 2.50-3.49; Seldom, 1.50-2.49; Never, 1.00-1.49). The standard deviation was used to measure the spread of how far the observations are from their mean. Pearson r correlation was used to investigate the correlation (r) between disaster awareness and disaster preparedness according to the respondents' answers.

RESULTS AND DISCUSSION

The study delved into the disaster awareness and preparedness of Grade 9 junior high school students. Basic education students must become aware and prepared in times of disasters. Several studies provide evidence that schools, specifically basic education schools, play a pivotal role in disaster risk reduction and management (Hosseini, & Izadkhah, 2020; Luetz, 2020; Sakurai et al., 2018; Triastari et al., 2021).

1. Students' Level of Disaster Awareness

Table 2 shows the level of awareness of the Grade 9 students in the different disasters.

Table 2. Level of Disaster Awareness of the Students

Disaster	M	SD	Verbal Description
typhoon	3.78	0.98	High
volcanic eruption	3.39	1.33	Moderate
earthquake	3.68	1.06	High
landslide	3.61	1.13	High
fire	3.66	1.19	High
flood	3.45	3.46	High
Overall Mean	3.59	1.53	High

Legend: Very High-4.50-5.00; High - 3.50-4.49; Moderate - 2.50-3.49; Low - 1.50-2.49; Very Low - 1.00-1.49

The Grade 9 students have a high self-reported awareness of the different disasters (Table 2), with an overall mean of 3.59 ($SD=1.53$). They have a high level of awareness in all types of disasters except with volcanic eruption ($M=3.39$, $SD=1.33$) which is at a moderate level. In terms of awareness, typhoons ($M=3.78$, $SD=0.98$) ranked first, followed by earthquake ($M=3.68$, $SD=1.06$) and fire ($M=3.66$, $SD=1.19$).

The current study revealed that the high school students have a high level of self-reported awareness of the different disasters with a moderate awareness level of a volcanic eruption. Their level of understanding can be further enhanced through different research-based and science-based disaster management programs to be implemented in basic education schools. The high awareness level of students in the present study

conforms to the results of the study of Ventura & Madrigal (2020), wherein high school students of a public high school demonstrate remarkable disaster preparedness awareness and practice before, during, and after natural hazards. In the same vein, the results of the study of Kamil et al. (2020) revealed that there was an increase of students' disaster knowledge and understanding by 91.6% through incorporating geographic literacy in disaster-related theme materials. Knowledge about geography is as important as being aware of disasters (Rogayan & Dollete, 2020), hence teachers must integrate geographical literacy in teaching disasters in the basic education curriculum.

The current findings are also similar to previous studies revealing a high level of awareness of disasters among students (Kamil et al., 2020; Mamon et al., 2017; Rivera & Kapucu, 2015).

2. Students' Level of Disaster Preparedness

Table 3 presents the disaster preparedness of the ninth-grade students.

Table 3. Level of Disaster Preparedness of the Students

Disaster	M	SD	Verbal Description
Earthquake	3.79	1.06	Often
Strong Typhoon	4.01	1.01	Often
Landslide	3.95	1.00	Often
Fire	3.95	1.51	Often
Flood	4.03	0.98	Often
Volcanic Eruption	4.13	0.94	Often
Overall	3.98	1.08	Often

Legend: Always (4.50-5.00); Often (3.50-4.49); Sometimes (2.50-3.49); Seldom (1.50-2.49); Never (1.00-1.49)

The students often ready themselves when disasters strike (Table 3), as revealed in the overall disaster preparedness score of 3.98 (SD=1.08). They often prepare for all the catastrophes mentioned. Interestingly, volcanic eruption (M=4.13, SD=0.94) ranked first in terms of preparedness even it got the lowest awareness among the respondents. This was followed by flood (M=4.03, SD=0.98) and strong typhoon (M=4.01, SD=1.01).

Earthquake. The students are often prepared for an earthquake with an overall mean of 3.79 (SD=1.06). They often practice the following: pick safe places in each room of your home, workplace and/or school; become aware of fire evacuation and earthquake plans for all of the buildings you occupy; keep and maintain an emergency supplies kit in an easy-to-access location; hang heavy items, such as pictures and mirrors, away from beds, couches, and anywhere people sleep or sit; and keep a flashlight and sturdy shoes by each person's bed.

Strong Typhoon. In terms of strong typhoons, the students have a high level of preparedness with an overall mean of 4.01 (SD=1.01). They always practice the preparation of the cellphones with chargers. If they ever evacuate from their area due to a strong typhoon, they will have their cellphones with chargers for communication. It would also be a tool for them to be found just in case they are lost, trapped, or in danger. Likewise, they often listen to radio on the updates of PAGASA regarding the typhoon's movement; prepare at least a three-day supply of water and food; stay alert for extended rainfall and subsequent flooding even

after the storm has ended turn off gas tanks and unplug small appliances. It is very important to be updated and ready at all times about the typhoon.

They still need to improve their preparedness in terms of the following: check their disaster supplies and replace or restock as needed; talk with members of their household and create an evacuation plan; and learn about their community's storm response plan.

Landslide. The students have high preparedness in terms of landslide ($M=3.95$, $SD=1.00$). They often do the following: learn about their area's landslide risk; evacuate immediately from their homes if they suspect imminent danger; become familiar with the land around where they live and work so that they understand their risk in different situations; assemble and maintain an emergency preparedness kit, and create and practice an evacuation plan for their family.

Fire. The respondents are often prepared in a fire with an overall mean of 3.95 ($SD=1.51$). In particular, they often practice the following preparedness measures: keep items that can catch on fire at least three feet away from anything that gets hot; talk to children about the dangers of fire, matches, and lighters and keep them out of reach; and stay in the kitchen when frying, grilling or broiling food (4.06). They need to improve on the following practices: teach household members to stop, drop and roll if their clothes should catch on fire; and practice escaping from their home at least twice a year and at different times of the day. These practices are essential for the students to do in case of fire.

Flood. The students are often prepared in terms of a flood ($M=4.03$, $SD=0.98$). The students always do the following: prepare flashlights and extra batteries and keep a contact number of their local emergency response team. The students often practice the following: when a flood or flash flood warning is issued for their area, head for higher ground and stay there; if they come upon a flooded road while driving, turn around and go another way; and be especially cautious at night when it is harder to recognize flood danger. It is the best thing to do to prevent accidents, but some do not follow this because they can't leave their house.

Volcanic Eruption. The students have a high level of preparedness for volcanic eruption ($M=4.13$, $SD=0.94$). In particular, the following, they often prepare the following: stay out of designated restricted zones; follow any evacuation orders issued by authorities; develop an evacuation plan for volcanic eruptions for their family; learn about their community's warning systems and emergency plans; and review landslide and mudflow safety and preparedness measures with members of your household.

The students often prepare for the different natural hazards and human-made disasters in terms of disaster preparedness. This implies that they often prepare for various disasters that might occur in the locality. The preparedness level can still be improved through their exposure to different disaster drills and related activities embedded in the crafted disaster management program. Disaster preparedness must be enhanced in schools to protect the lives of students. Such preparedness will not only "save precious lives and the future of a nation but will also empower the overall ability of communities to deal with the natural hazards by enhancing their preparedness" (Khan, Rana, Nawaz & Waheed, 2020).

Similarly, previous studies also found out that students have an average level of preparedness as regards disasters (Mustadi & Atmojo, 2020; Wardana et al., 2021; White-Lewis et al., 2021).

3. Relationship between Disaster Awareness and Disaster Practices of Grade 9 Students

The significant relationship between disaster awareness and disaster practices of students is presented in Table 4.

Table 4. Correlation between Disaster Awareness and Disaster Preparedness of Students

Variables	r	p	Remark
Disaster Awareness	0.466**	0.000	Moderate Correlation
Disaster Preparedness			

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

The results show that the Pearson correlation coefficient was 0.466 ($p < 0.000$), meaning that disaster awareness had a significant moderate correlation with disaster preparedness. This finding implies that as students' disaster awareness increases, their preparedness will likely increase.

The study also found out that there is a moderate relationship between students' disaster awareness and disaster preparedness. The result supports the findings of several studies which found out that there is a significant relationship between disaster awareness and disaster preparedness (Azali, & Ludin, 2020; Park, 2019; Rogayan & Dollete, 2020; Titko, & Ristvej, 2020; Ventura & Madrigal, 2020). The implication is that "being aware about disaster risk can be a significant precursor to being prepared in times of these unfortunate events" (Rogayan & Dollete, 2020).

4. Proposed Disaster Management Program

The researchers proposed to establish possible partnerships between school administration and the following government agencies (Table 5).

Bureau of Fire Protection (BFP). This agency is specialized and skilled when it comes to the operation and management of fire. This will help the students to be aware of the causes of fire and how to prevent it. The school can have a contact in BFP in case of fire in the school. The BFP could check each room to see if things may cause a fire. **Municipal Disaster Risk Reduction Management Council (MDRRMC).** This agency is primarily responsible for all kinds of disasters and plans to evaluate/assess the whole scenarios when the disasters occur. **Philippine Institute of Volcanology and Seismology (PHIVOLCS).** This agency is responsible for forecasting and monitoring if a volcano will erupt. At the same time, it measures the intensity, epicenter, and magnitude of the earthquake on how big or small the impact of damage done in a particular place. **Philippine Atmospheric Geophysical Astronomical and Services Administration (PAGASA).** This agency is concerned with the forecast or updates regarding typhoons. They can also give information if the class is suspended in a particular place.

Local Government Unit (LGU). This institution is responsible for planning, supervising, and implementing projects and programs in the locality. **Department of Education (DepEd).** This is the agency concerned with integrating disaster management programs in the school program and the curriculum.

The following are the proposed activities embedded in the proposed disaster management program.

Table 5. Proposed Disaster Management Program

Specific Objectives	Activities/ Topics	Persons Involved	Duration	Expected Output
1. Disseminate information about nature, possible effects, the extent of damage in infrastructure and livelihood, and safety measures of earthquake, volcanic eruption, and fire.	<i>Oplan Iwas Sakuna: Disaster Prevention Campaign</i> Inform students on disasters through educational campaigns; Distribution of flyers and pamphlets; Watching documentaries; Writing informative essay	DepEd; BFP; faculty staff; school administration; parents; students; communities; and other stakeholders.	At least three times during the school year	At least 85% of faculty, staff, and school administration, students are well-informed about disasters.
2. Develop awareness on how to prevent and reduce accidents; learn to do alternative ways regarding cutting of trees; be an example of a responsible model to the community to lessen the damage of strong typhoon, flood, and landslide	<i>STOP, LOOK and LISTEN Safety Tips</i> Orientation Program; Lecture-demonstration on cutting and planting trees and their effect on the environment; Viewing eco-multimedia presentations	Agency concerned; school administration; students; and communities.	At least two times the school year	At least 80% of school administration and students are expected to improve their awareness of disasters
3. Train students on safety tips while evacuating a building, learn to do first aid, and avoid places that are prone to fallen structure	<i>Seminar Workshop to Lessen Accidents: Keeping Everybody Safe</i> Lecture-discussion; Watching documentary films which will involve the effects of disasters; Performing simulations; Poster making depicting the cause and effect of disasters	BFP; PHILVOCS; School administration; faculty staff; students; the community; and other stakeholders	Once in a quarter	100% of the participants will be trained and informed from the said seminar workshops.

4. Monitor the awareness of the participants after activities	Disaster Literacy Monitoring Monthly conduct of a drill	Agency concerned; school administration; faculty; staff; students; communities and other stakeholders	Quarterly	Quarterly report
5. Evaluate the effectiveness of the program	Closing program; Evaluation of the Program	Agency concerned; school administration; faculty; staff; students; communities and other stakeholders	A day before the end school year	Evaluation report

The schools may contextualize the crafted disaster management plan to improve the students' awareness and preparedness level in terms of disasters. [Dikmenli and colleagues \(2020\)](#) pointed out that every society, including schools, needs to have a concrete action plan for disasters and provide importance to these efforts to minimize losses and protect the lives of the people.

CONCLUSION

The ninth-grade students have a high awareness of the different disasters specifically on typhoons, earthquake, and fire as these are commonly experienced by them. The junior high school students often prepared in the occurrences of different disasters particularly volcanic eruption, flood, and strong typhoon. There is a moderate direct relationship between disaster awareness and disaster preparedness. The proposed disaster management plan could serve as a tool in the continuous improvement of the students' awareness and preparedness towards natural hazards and human-made disasters.

Students may be exposed to several disaster-related programs to develop their awareness and preparedness as young as they are. The awareness level of students on the different disasters may be sustained and enhanced through various media like audio-visual presentations, posters, and education and information dissemination materials. Schools may conduct actual drills, disaster workshops, and lecture series on the different kinds of disasters to enhance students' preparedness level. Through Social Studies and Science curriculum, teachers may incorporate the teaching of disaster science and management among the students, for as they become more aware of disasters, they become more prepared. It is crucial that students in the basic education are prepared for the disasters to safeguard themselves and their communities in times of disasters. Schools, through the science or social studies department, may fully implement the crafted disaster management program.

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