

# Probing the Relationship Between Disaster Awareness and Preparedness towards Student's Resilience in Disaster Management

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## ABSTRACT

This study investigated the relationship between disaster awareness, disaster preparedness, and students' resilience in disaster management at Lorenzo S. Sarmiento Sr. National High School. Using a quantitative, non-experimental, descriptive correlational research design, data were collected from 270 senior high school students through a standardized survey instrument. Various statistical approaches were used, including average weighted mean, Spearman rho, and multiple regression analysis. Important factors affecting the dependent variable were also identified through multiple regression analysis. The study assessed disaster awareness in terms of disaster-related knowledge, preparedness, and adaptation, while disaster preparedness was examined through disaster characteristics, early warning systems, and evacuation facilities. Resilience was evaluated based on disaster preparedness, awareness, and community readiness. The results underscored the importance of integrating disaster risk education into the school curriculum to enhance students' ability to cope with disasters effectively. This research contributed valuable insights to educators, policymakers, and community leaders and emphasized the need for targeted disaster education programs to strengthen student resilience. By fostering awareness and preparedness, schools played a pivotal role in reducing vulnerabilities and enhancing disaster response capacities among students.

**Keywords:** Disaster awareness, Disaster Preparedness, Students resilience and Senior High School

## INTRODUCTION

Resilience in disaster management was essential for students as it enabled them to recover from crises. However, many countries struggled to foster this skill due to gaps in disaster education, psychological support, and preparedness programs (Surjan & Shaw, 2020). In Japan, despite frequent exposure to earthquakes and tsunamis, students often lacked sufficient resilience due to inconsistent disaster education and limited psychological support (Cutter, 2019). Similarly, in Bangladesh, where floods were common, schools faced challenges in providing practical training that helped students cope emotionally and physically with disasters (Khan & Rahman, 2021). In New Zealand, resilience-building activities were not fully integrated into the school curriculum, which limited students' ability to manage stress and recover from disasters effectively (Wilson et al., 2020). These issues highlighted the global need for targeted educational programs that strengthened student resilience in disaster management (Shimizu & Yamada, 2020).

Disaster awareness played a crucial role in building resilience, especially among students, who were one of the most vulnerable groups during disasters (Burnside-Lawry & Carvalho, 2019). In the Philippines, disaster preparedness remained a challenge due to gaps in education, limited resources, and varying levels of risk perception (Dickson Lim, 2017). Raising awareness about disaster risks empowered students to respond appropriately during emergencies and enhanced their ability to protect themselves (Bali, 2022). Studies showed that many students lacked knowledge of disaster risk reduction (DRR) programs, which weakened their ability

to respond effectively to disasters (Tabangcura et al., 2023). The lack of preparedness persisted in disaster-prone countries, as nearly half of respondents in the Philippines had not taken any steps to prepare for a disaster in the past five years (Olano, 2019). Moreover, individual preparedness, including storing food and water, having a first aid kit, and developing an evacuation plan, played a critical role in disaster readiness (Hoffmann & Muttarak, 2019). Empowering students with disaster preparedness knowledge not only strengthened their resilience but also contributed to a safer and more resilient society (Dwivedi, 2022).

In Region XI, particularly in Mindanao, ongoing conflicts and natural disasters had severe consequences, including loss of life, disrupted access to resources, and damaged infrastructure in universities (Patel et al., 2022). Many university students reported a lack of experience with local hazards, insufficient emergency preparedness kits, and a general sense of low self-responsibility (Hasan et al., 2021). In Davao City, a study at the University of South Eastern Philippines highlighted how college students remained at risk due to inexperience and reliance on others (Cariaga, 2021). However, despite multiple studies on disaster awareness, preparedness, and resilience, no research had specifically examined these factors at Lorenzo S. Sarmiento Sr. National High School. This study aimed to bridge that gap by assessing students' level of disaster awareness and preparedness and their impact on resilience. Understanding these relationships would help educators and communities develop effective disaster awareness and preparedness programs tailored to students' specific needs, ultimately enhancing their resilience in disaster management.

## Research Objectives

This quantitative study aimed to examine the level of disaster awareness and disaster preparedness and its influence on student's resilience in disaster management. The study sought to address the following objectives:

1. To determine the level of Disaster Awareness among students Resilience in Disaster Management in terms of:
  - 1.1 Disaster-related knowledge;
  - 1.2 Disaster preparedness and readiness; and
  - 1.3 Disaster adaptation.
2. To determine the level of Disaster Preparedness in students Resilience in Disaster Management in terms of:
  - 2.1 Disaster characteristics;
  - 2.2 Early warning system; and
  - 2.3 Evacuation facility.
3. To determine the level of students Resilience in Disaster Management in terms of:
  - 3.1 Disaster preparedness;
  - 3.2 Disaster awareness; and
  - 3.3 Community readiness.
4. To determine the significant relationship between the disaster awareness and student's resilience in disaster management.
5. To determine the significant relationship between the disaster preparedness and student's resilience in disaster management
6. To determine which domains of disaster awareness influence student's resilience in disaster management.

7. To determine which domains of disaster preparedness influence student's resilience in disaster management.

## METHODOLOGY

This study used a quantitative, non-experimental research approach that applied descriptive correlational techniques to characterize the potential presence of a link between two defined variables, as well as to determine the direction and degree of that relationship, if one existed. When the goal was to describe the situation as it occurred at the time of the study in order to investigate the reasons of a specific issues, the descriptive correlation method was acceptable.

A correlational research design examined the correlations between variables without the researchers altering or manipulating any of them. A correlation indicated the intensity and direction of the association between two or more variables (Bhandari, 2021). In correlation research, it involved collecting data in order to determine whether the degree of a relationship exists between two more quantifiable variables (Gay et al., 2020).

This survey dealt with quantitative data about the phenomenon. The quantitative aspect determined the schedule for gathering the data, was designed for the target respondents to answer the questions. The process of gathering the data was based on the questionnaires used. The focus of the study was to determined the level of disaster awareness and preparedness in student's resilience in disaster management.

### Population and Sample

Simple random sampling was employed in selecting the respondents for this study. The study included Senior High School students from Lorenzo S. Sarmiento Sr. National High School who were enrolled in the first semester of the school year 2024-2025. Eligible respondents must be in Grade 11 or Grade 12 and have been enrolled in the school for at least one academic year before participation. Additionally, students must be physically and mentally capable of engaging in school activities and must voluntarily agree to participate by providing assent consent. On the other hand, the study excluded students who had been enrolled in the school for less than one academic year, as well as those with medical, psychological, or physical conditions that could prevent them from actively participating in school activities. Students who were currently on academic leave or had an irregular enrollment status were also excluded. Furthermore, those who do not provide assent consent or whose parents or guardians do not permit their participation were not be included in the study.

According to Mumtaz et al. (2020), a sample size of 200-400 respondents was considered the minimum ratio. In the case of Senior High School students at Lorenzo S. Sarmiento Sr. National High School, out of a population of 904 individuals, a random sample of 270 respondents was selected. The chosen number of Senior High School students, 270, was deemed statistically significant in representing the broader population of students in the school. The sample size was computed using the Raosoft sample size calculator.

Section	Population	Respondents
A	39	12
B	39	12
C	57	16
D	42	13
E	50	15
F	47	14

G	52	16
H	53	16
I	52	16
J	47	14
K	48	14
L	57	17
M	55	16
N	46	14
O	45	13
P	46	14
Q	45	13
R	46	14
S	38	11
TOTAL	904	270

Table 1. Population and Sample size of Respondents

## Statistical Tool

The statistical tools that were used for the data analysis and interpretation are the following:

**Mean.** This statistical tool was utilized to determine the levels of disaster awareness and disaster preparedness among students and their influence on resilience in disaster management.

**Spearman's (rho).** This statistical tool was used to determine the significance on the relationship between disaster awareness and disaster preparedness in student's resilience in disaster management.

**Multiple Regression Analysis.** This statistical tool was applied to analyze the influence of disaster awareness and disaster preparedness on students' resilience in disaster management.

## RESULTS

### Level of Disaster Awareness

Table 2 shows the level of disaster awareness in terms of disaster- related knowledge, disaster preparedness and readiness and disaster adaptation. The overall mean is 4.05, which was described as high, with a standard deviation of 0.69. The high level was attributed to the high ratings the respondents gave in all indicators. This entails that the respondents' responded to the level of disaster awareness was positive in terms of disaster-related knowledge, disaster preparedness and readiness and disaster adaptation.

The cited overall mean score was the result obtained from the following computed mean scores from highest to

lowest: 4.13 or high for disaster-related knowledge with a standard deviation of 0.76; 4.01 or high for disaster preparedness and readiness with a standard deviation of 0.76; and 4.01 or high for disaster adaptation with a standard deviation of 0.76.

*Table 2. Level of Disaster Awareness*

Indicators	Mean	SD	Descriptive Equivalent
Disaster-Related Knowledge	4.13	0.76	High
Disaster Preparedness and Readiness	4.01	0.76	High
Disaster Adaptation	4.01	0.76	High
Overall	4.05	0.69	High

### Level of Disaster Preparedness

Presented in Table 3 were the mean scores for the indicators of disaster preparedness, with an overall mean of 4.03, which described as high with a standard deviation of 0.68. The high level could be attributed to the high rating given by the respondents on most indicators in the items of disaster characteristics, early warning system and evacuation facility.

The cited overall mean score was the result obtained from the following computed mean scores from highest to lowest: 4.13 or high for disaster characteristics with a standard deviation of 0.75; 4.00 or high for evacuation facility with a standard deviation of 0.80; and 3.96 or high for early warning system with a standard deviation of 0.73.

*Table 3. Level of Disaster Preparedness*

Indicators	Mean	SD	Descriptive Equivalent
Disaster Characteristics	4.13	0.75	High
Early Warning System	3.96	0.73	High
Evacuation Facility	4	0.8	High
Overall	4.03	0.68	High

### Level of Students' Resilience in Disaster Management

Table 4 shows the level of student's resilience in disaster management in terms of disaster preparedness, disaster awareness and community readiness. The overall mean was 4.07 described as high, with a standard deviation of 0.67 the high level could be attributed to the high ratings the respondents gave in all indicators. This entails that the respondent's responses to the level of student's resilience in disaster management were much positive in terms of disaster preparedness, disaster awareness and community readiness.

The cited overall mean score was the result obtained from the following computed mean scores from highest to lowest: 4.11 or high for community readiness with a standard deviation of 0.61; 4.09 or high for disaster preparedness with a standard deviation of 0.74; and 4.02 or high for disaster awareness with a standard deviation of 0.72.

**Table 4. Level of Students' Resilience in Disaster Management**

Indicators	Mean	SD	Descriptive Equivalent
Disaster Preparedness	4.09	0.74	High
Disaster Awareness	4.02	0.72	High
Community Readiness	4.11	0.61	High
Overall	4.07	0.67	High

### Significance on the Relationship Between Disaster Awareness and Students' Resilience in Disaster Management

One crucial purpose of this study was to determine whether or not disaster awareness had a significant relationship with students' resilience in disaster management. The appended table 5 shows that the Shapiro-Wilk Test for Bivariate Normality had a p-value of  $<.001$ , indicating that the distribution was not normal. Hence, a parametric test, Spearman's correlation was suited for this distribution. Moreover, Spearman's value which was 0.599 means that there was a moderate correlation between disaster awareness and student's resilience in disaster management.

**Table 5: Significance on the Relationships Between Disaster Awareness and Students' Resilience in Disaster Management**

		Disaster Awareness
Students Resilience in Disaster Management	Spearman's rho	0.599*
	p-value	$<.001$

### Significant Relationship Between Disaster Preparedness and Students' Resilience in Disaster Management

Another crucial purpose of this study was to determine whether or not disaster preparedness had a significant relationship with students' resilience in disaster management. The appended table 6 shows that the Shapiro-wilk Test for Bivariate Normality had a p-value of  $<.001$ , indicating that the distribution was not normal. Hence, a parametric test, Spearman's correlation, was suited for this distribution. Moreover, Spearman's rho value which was 0.700 further means that there was a high correlation between disaster preparedness and student's resilience in disaster management.

**Table 6: Significance on the Relationships Between Disaster Preparedness and Students' Resilience in Disaster Management**

		Disaster Preparedness
Students Resilience in Disaster Management	Spearman's rho	0.700*
	p-value	$<.001$

### Multiple Regression Analysis on the Influence of Between Disaster Awareness and Students' Resilience in Disaster Management

Presented in Table 7 was the regression analysis on the influence of disaster awareness on the students' resilience



in disaster management. Table shows a computed f-value of 65.432 and a p-value of <.001, meaning that disaster awareness significantly influences the students' resilience in disaster management since the probability value was less than the 0.05 significance level. The coefficient of determination ( $R^2$ ) of 0.425 connotes that 42.5% of disaster awareness was explained by disaster-related knowledge, disaster preparedness and readiness and disaster adaptation. In comparison, the remaining percentage of 57.5% was accountable to their indicators not included in the study.

*Table 7: Multiple Regression Analysis of the influence Between Disaster Awareness and Students'*

Independent Variable	Coefficients	t-value	p-value	Decision
				$\alpha=0.05$
Disaster-Related Knowledge	0.225*	3.135	0.002	$H_0$ is Rejected
Disaster Preparedness and Readiness	0.379*	4.182	<.001	$H_0$ is Rejected
Disaster Adaptation	0.107*	1.313	0.19	$H_0$ is not Rejected
Dependent Variable: Students Resilience in Disaster Management				

\* $p < 0.05$   $R = 0.652$  \*  $R^2 = 0.425$  F-ratio=65.432 p-value=< .001

### Multiple Regression Analysis of the Influence of Disaster Preparedness and Students' Resilience in Disaster Management

Presented in Table 8 was the regression analysis on the influence of disaster preparedness on the students' resilience in disaster management. The table shows a computed f-value of 109.482 and p-value of <.001, meaning that the disaster preparedness significantly influences the students' resilience in disaster management since the probability value was less than the 0.05 significance level. The coefficient of determination ( $R^2$ ) of 0.553 connotes that 55.3% of disaster preparedness was explained by disaster characteristics, early warning system and evacuation facility. In comparison, the remaining percentage of 44.7% was accountable to other indicators not included in the study.

*Table 8: Multiple Regression Analysis on the Influence of Disaster Preparedness and Students' Resilience in Disaster Management*

Independent Variable	Coefficients	t-value	p-value	Decision
				$\alpha=0.05$
Disaster Characteristics	1.177*	2.822	0.005	$H_0$ is Rejected
Early Warning System	0.302*	4.894	<.001	$H_0$ is Rejected
Evacuation Facilities	0.348*	5.208	<.001	$H_0$ is Rejected
Dependent Variable: Students' Resilience				

\* $p < 0.05$   $R = 0.744$  \*  $R^2 = 0.553$  F= 109.482 p-value = < .001

## DISCUSSIONS

### Level of Students in Disaster Awareness

In the preceding chapter, the findings regarding the disaster awareness of Senior High School students at Lorenzo

S. Sarmiento Sr. National High School were presented. It revealed that the level of disaster awareness was reported as high, indicating that students possess a solid understanding of disaster risks, preparedness, and adaptive strategies to reduce the impact of disasters.

It was greatly highlighted in the results of the study that disaster-related knowledge significantly impacts students' preparedness, affirming the study of Sumarmi et al. (2020), which suggests that when students are knowledgeable about disaster risks, they can take appropriate preventive measures. Well-informed students are able to identify various hazards, such as floods, earthquakes, and typhoons, and understand the necessary safety protocols to follow during these events, which enhances their ability to respond effectively during disasters.

Covered in disaster awareness is disaster preparedness and readiness, which showed high results. According to Smith et al. (2019), preparedness was crucial in ensuring that individuals are ready to act during a disaster. The study showed that students who actively participate in preparedness activities, such as creating emergency kits, knowing evacuation routes, and discussing safety measures with their families, demonstrated a high level of readiness to respond to disasters when necessary.

Furthermore, disaster adaptation also showed high results, emphasizing students' ability to adjust to unforeseen situations. Shaw et al. (2023) argue that adaptability was key to resilience during disasters. The study revealed that students exhibited adaptability by engaging in disaster simulations and role-playing activities, which helped them learn how to respond to unexpected events, strengthening their overall resilience.

### **Level of Students in Disaster Preparedness**

In the previous chapter, the study reported the level of disaster preparedness of Senior High School students at Lorenzo S. Sarmiento Sr. National High School. It revealed that disaster preparedness was described as high, with students showing considerable capability to prepare for and respond effectively to disasters. The three indicators for this variable were also described as high, reflecting students' readiness and understanding of disaster preparedness measures.

The respondents' level of disaster preparedness indicates their strong ability to engage with disaster characteristics, evacuation facilities, and early warning systems. This positive level of preparedness highlights the effectiveness of disaster education and readiness programs in building a proactive culture among students.

The indicator disaster characteristics received the highest mean, indicating students' understanding of the frequency, intensity, and potential impacts of disasters. This dimension assesses how students perceive various disasters and their ability to identify potential risks in their environment. A high mean in this area reflects students' awareness and ability to anticipate the effects of disasters, aligning with the findings of Sumarmi et al. (2020), which emphasize the importance of disaster-related knowledge in fostering resilience. Students' proactive approach in identifying hazards underscores their commitment to mitigating risks and ensuring safety.

The next indicator, evacuation facility, also recorded a high mean, indicating students' familiarity with evacuation routes, designated safe zones, and emergency preparedness measures. This aligns with the findings of Patel et al. (2023), who argue that knowledge of evacuation facilities and their effective use are essential during emergencies. The study revealed that students were well-acquainted with their community's evacuation plans and actively participated in discussions about preparing for disasters. Their understanding of evacuation protocols contributes significantly to their readiness in responding to emergencies.

Lastly, the indicator early warning system also showed a high mean, reflecting students' ability to monitor and respond to disaster alerts effectively. This dimension emphasizes students' understanding of the importance of timely information in reducing disaster impacts. The findings aligned with Hoffmann & Muttarak (2019), who assert that effective early warning systems enable individuals to take immediate action, thereby minimizing risks. The study revealed that students consistently monitored weather reports and responded promptly to warning signals, showcasing their preparedness and adaptability.

### **Level of Students' Resilience in Disaster Management**

Presented in the previous chapter was the result of the level of students' resilience in disaster management as



observed by the school educators. It revealed that students' resilience was described as high. All three indicators for this variable were also described as high, indicating that students' resilience was evident on how they prepared for, respond to, and recover from disaster-related challenges.

The respondents from Lorenzo S. Sarmiento Sr. National High School demonstrated a very positive outlook in our research. Educators' responses highlight the creation of an environment that not only encourages preparedness but also fosters strong community support and disaster awareness. This aligns with Aldrich & Meyer (2019), who emphasize that building resilience through community involvement helps individuals adapt better in times of crisis. In our study, students who participated in community preparedness activities displayed enhanced resilience.

Furthermore, in terms of disaster preparedness, it appears to be very positive, aligning with Patel et al. (2020), who argue that disaster preparedness

equips students with the necessary knowledge and skills to respond effectively during emergencies. Behavioral engagement in preparedness activities, such as drills and planning, ensures students are well-prepared to act during a disaster. This high level of preparedness indicates that students are proactive in ensuring their safety and the safety of others.

Disaster awareness was also observed as the indicator with the highest mean. According to Kim et al. (2020), disaster awareness plays a crucial role in students' ability to assess risks and take appropriate action. Students who actively engage in learning about disaster risks and safety measures demonstrate a heightened sense of responsibility. In our study, students who were aware of potential hazards in their community were more confident and effective in responding to real-world disaster situations.

Lastly, the standpoint of Moghadas et al. (2021) was aligned with the result of community readiness among students. The study indicated that students who were actively involved in local preparedness efforts displayed better resilience, as they participated in community drills and coordinated emergency response activities. This collaborative approach to disaster preparedness helped strengthen the overall resilience of students in disaster management.

### **Significant Relationship Between Disaster Awareness and Students' Resilience in Disaster Management**

The results of the study revealed a significant relationship between disaster awareness and students' resilience. The p-value indicated a correlation between these two variables. This correlation suggests that as disaster awareness increases, there was a corresponding improvement in students' resilience in disaster management.

This correlation aligns with the Protective Action Decision Model (PADM) by Lindell and Perry (2019), which explains how disaster awareness influences decision-making processes, highlighting that awareness leads individuals to take informed protective actions. The model emphasizes cognitive processes like risk perception and recognizing appropriate responses as foundational for resilience. Kennedy (2018) argued that disaster awareness enhances students' self-efficacy, which strengthens their ability to respond and recover effectively during disasters.

More findings align with Masten's (2014) Resilience Theory, which highlights the dynamic interplay between awareness, preparedness, and resilience. The theory posits that informed students possess stronger psychological and practical capacities to manage disaster-related challenges.

These results highlighted the significance of incorporating disaster risk education in school curricula, as recommended by Wilson (2020), who argued that awareness programs improve long-term resilience by equipping students with the skills and confidence necessary for managing real-world disaster scenarios.

### **Significance Relationship Between Disaster Preparedness and Students' Resilience in Disaster Management**

The study's results revealed a significant relationship between disaster preparedness and students' resilience. The

statistical analysis indicated that an increase in disaster preparedness corresponds to an increase in students' resilience, thereby rejecting the null hypothesis and confirming the significance of the relationship. This finding highlights the critical role of disaster preparedness in equipping students with the capacity to adapt, recover, and thrive during and after disaster-related challenges.

This finding aligns with Rosenstock's Health Belief Model (1974), which posits that individuals' preparedness behaviors are influenced by their perceptions of susceptibility, severity, benefits, and barriers. Students who perceive the risks of disasters as significant and understand the benefits of preparation are more likely to engage in proactive behaviors. This theory further emphasizes the importance of cues to action, such as drills and training, in motivating students to prepare effectively.

Additionally, this result supports the observations of Cabuga and Cañete (2023), who emphasized that disaster preparedness was essential in developing students' resilience, particularly in disaster-prone areas. Preparedness activities, such as creating emergency plans and conducting evacuation drills, enhance students' confidence and ability to respond to disasters effectively.

### **Multiple Regression Analysis on the Influence of Disaster Awareness and Students' Resilience in Disaster Management**

The regression analysis investigating the influence of disaster awareness on students' resilience indicates that two out of three domains risk perception and knowledge of disaster impacts had a significant impact on students' resilience. On the other hand, disaster information access was found to have no significant influence on students' resilience. Research by Kennedy (2018) highlights the importance of risk perception as a predictor of resilience, arguing that individuals who understand the likelihood and potential severity of disasters are better equipped to take protective actions. Similarly, Wilson (2020) asserts that knowledge of disaster impacts enhances students' ability to anticipate challenges, fostering emotional and psychological readiness.

These findings align with Lindell and Perry's Protective Action Decision Model (2019), which emphasizes the role of risk perception and accurate disaster-related knowledge in motivating protective behaviors. The model further highlights that while information access is essential, its impact may depend on the quality and timeliness of the information provided.

Furthermore, Masten (2014) underscores that awareness strengthens psychological resilience, enabling individuals to adapt and recover effectively during disaster situations. This finding also supports Cabuga and Cañete (2023), who emphasized the role of disaster education in building adaptive capacities and reducing vulnerabilities.

Although disaster information access was not found to have a significant direct influence, this domain may still indirectly contribute to resilience by enhancing other aspects of awareness. These results underscore the importance of integrating disaster risk education into school curricula to ensure students are prepared for disaster-related challenges.

### **Multiple Regression Analysis of the Influence of Disaster Preparedness and Students' Resilience in Disaster Management**

The regression analysis investigated the influence of disaster preparedness on students' resilience indicates that two out of three domains emergency planning, evacuation facilities and disaster drills significantly impact students' resilience.

Research by Hoffmann and Muttarak (2019) highlighted that comprehensive planning and well-structured evacuation facilities play a pivotal role in mitigating disaster risks. They argue that preparedness measures, such as clear evacuation plans and accessible facilities, directly enhance resilience by reducing uncertainty and providing safety during emergencies. Similarly, Dwivedi (2022) emphasized that personal readiness and community-level evacuation systems contribute significantly to strengthening resilience among vulnerable populations.

These findings align with the work of Rogayan et al. (2022), who stressed that the absence of active disaster

drills often leads to insufficient preparedness, thereby limiting students' ability to effectively respond during emergencies. Furthermore, Olano (2019) noted that while evacuation facilities contribute positively to resilience, their impact was amplified when complemented with regular preparedness activities.

## CONCLUSION

Conclusions were drawn based on the study's results. The study concluded that the level of influence of disaster awareness was high, as well as its indicators, namely, disaster-related knowledge, disaster preparedness and readiness, and disaster adaptation. These indicators focused on awareness in disaster, preparedness in disaster, and resilience in terms of disaster. The regression analysis revealed that among the domains of disaster awareness, the disaster-related knowledge, and disaster adaptation were significantly influenced students' resilience, while disaster readiness and preparedness information had no significant impact. This finding supports existing literature emphasizing the role of risk perception and preparedness in fostering resilience. Similarly, the study also concluded that the level of influence of disaster preparedness was high, along with its indicators, namely, disaster characteristics, early warning systems, and evacuation facilities. The regression analysis further showed that disaster characteristics significantly influence to students' resilience, while the early warning system and evacuation facility had no significant influence to the student's resilience in disaster management.

Moreover, the overall level of disaster awareness was high, encompassing the three domains: disaster-related knowledge, disaster preparedness and readiness, and disaster adaptation. The findings contradicted the theoretical assumption of no significant relationship between disaster awareness and disaster preparedness on students' resilience in disaster management. Additionally, the study analyzed data using Spearman's rho correlation, which revealed that disaster awareness and disaster preparedness had a moderate correlation with students' resilience in disaster management. Contrary to prior assumptions, the study concluded that both disaster awareness and disaster preparedness had significant relationships and influence on students' resilience in disaster management among senior high school students.

## REFERENCES

1. Aldrich, D. P., & Meyer, M. A. (2019). Social capital and community resilience. *American Behavioral Scientist*, 59(2), 254–269. <https://doi.org/10.1177/0002764214550299>
2. APA PsycNet. (2019). <https://psycnet.apa.org/fulltext/200713640001.html>
3. Bakatsaki, M., & Zampetakis, L. (2020). International trends in managing natural hazards and the role of leadership. In *Springer tracts in civil engineering*(pp. 63–87). [https://doi.org/10.1007/978-3-030-39391-5\\_4](https://doi.org/10.1007/978-3-030-39391-5_4)
4. Bali, R. (2022). Importance of Community Awareness and Preparedness in Disaster Risk Reduction. *RESEARCH REVIEW International Journal of Multidisciplinary*, 7(10), 40–57. <https://doi.org/10.31305/rrijm.2022.v07.i10.005>
5. Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191–215. <https://doi.org/10.1037/0033-295X.84.2.191>
6. Benight, C. C., & Bandura, A. (2004). Social cognitive theory of posttraumatic recovery: The role of perceived self-efficacy. *Behaviour Research and Therapy*, 42(10), 1129–1148. <https://doi.org/10.1016/j.brat.2003.08.008>
7. Birkmann, J., Buckle, P., Jaeger, J., Pelling, M., Setiadi, N. J., Garschagen, M., Fernando, N., & Kropp, J. (2020). Extreme events and disasters: a window of opportunity for change? Analysis of organizational, institutional and political changes, formal and informal responses after mega-disasters. *Natural Hazards*, 55(3), 637–655. <https://doi.org/10.1007/s11069-008-9319-2>
8. Burnside-Lawry, J., & Carvalho, L. (2016). A stakeholder approach to building community resilience: awareness to implementation. *International Journal of Disaster Resilience in the Built Environment*, 7(1), 4–25. <https://doi.org/10.1108/ijdrbe-07-2013-0028>
9. Cabuga, Jr., C. C., & Cañete, R. A. P. (2023). Assessment of Disaster Preparedness and Related Knowledge f Among Senior High Students in Del Pilar National High School, Cabadbaran City, Agusan Del Norte, Philippines. *International Journal of Social Science and Human Research*, 6(6). <https://doi.org/10.47191/ijsshr/v6-i6-56>

10. Calamba, R. R. (2024). High School Students' Level of Awareness and Preparedness of Natural Disasters. *International Journal of Studies in Education and Science*, 5(2), 150–167. <https://doi.org/10.46328/ijses.91>
11. Cariaga, J. (2021). DISASTER PREPAREDNESS ON NATURAL CALAMITIES AMONG STUDENTS OF UNIVERSITY OF SOUTHEASTERN PHILIPPINES. *ResearchGate*. [https://www.researchgate.net/publication/354559823\\_DISASTER\\_PREPAREDNESS\\_ON\\_NATURAL\\_CALAMITIES\\_AMONG\\_STUDENTS\\_OF\\_UNIVERSITY\\_OF\\_SOUTHEASTERN\\_PHILIPPINES\\_REGION\\_XI\\_BASIS\\_FOR\\_A\\_PROPOSED\\_INTERVENTION\\_PROGRAM](https://www.researchgate.net/publication/354559823_DISASTER_PREPAREDNESS_ON_NATURAL_CALAMITIES_AMONG_STUDENTS_OF_UNIVERSITY_OF_SOUTHEASTERN_PHILIPPINES_REGION_XI_BASIS_FOR_A_PROPOSED_INTERVENTION_PROGRAM)
12. Champion, V. L., & Skinner, C. S. (2008). The Health Belief Model. In K. Glanz, B. K. Rimer, & K. Viswanath (Eds.), *Health Behavior and Health Education: Theory, Research, and Practice* (pp. 45-65). Jossey-Bass. [https://books.google.com/books/about/Health\\_Behavior\\_and\\_Health\\_Education.html?id=t0h\\_u2JwsCIC](https://books.google.com/books/about/Health_Behavior_and_Health_Education.html?id=t0h_u2JwsCIC)
13. Chua, B., Al-Ansi, A., Lee, M. J., & Han, H. (2020). Impact of health risk perception on avoidance of international travel in the wake of a pandemic. *Current Issues in Tourism*, 24(7), 985–1002. <https://doi.org/10.1080/13683500.2020.1829570>
14. \*\*Coping with Disaster | Ready.gov. (2020). <https://www.ready.gov/coping-disaster#>
15. Cutter, S. L., Barnes, L., Berry, M., Burton, C., Evans, E., Tate, E., & Webb, J. (2019). A place-based Model for Understanding Community Resilience to Natural Disasters. *Global Environmental Change*, 18(4), 598–606. <https://doi.org/10.1016/j.gloenvcha.2008.07.013>
16. Disaster resilience. (2019). Google Books. [https://books.google.com/books?hl=en&lr=&id=oZknDwAAQBAJ&oi=fnd&pg=PR5&dq=Paton,+D.,+%26+Johnston,+D.+M.+disasters. International Journal of Studies in Education and Science \(IJSES\), 5\(2\), 150-167.DOI: https://doi.org/10.24815/ijdm.v5i2.27150](https://books.google.com/books?hl=en&lr=&id=oZknDwAAQBAJ&oi=fnd&pg=PR5&dq=Paton,+D.,+%26+Johnston,+D.+M.+disasters. International Journal of Studies in Education and Science (IJSES), 5(2), 150-167.DOI: https://doi.org/10.24815/ijdm.v5i2.27150)
17. Drills and Exercises | Emergency Management | Illinois State. (2023, June 30). <https://emergencymanagement.illinoisstate.edu/training/drills-exercises/>
18. Dickson Lim, (2017). Small open economy DSGE model with natural disaster and foreign aid. (n.d.). DLSU-Angelo King Institute for Economic and Business Studies. <https://www.dlsu-aki.com/small-open-economy-dsge-model-with-natural-disaster-and-foreign-aid.html>
19. Dwivedi, Y. K., Hughes, L., Kar, A. K., Baabdullah, A. M., Grover, P., Abbas, R., Andreini, D., Abumoghli, I., Barlette, Y., Bunker, D., Kruse, L. C., Constantiou, I., Davison, R. M., De, R., Dubey, R., Fenby-Taylor, H., Gupta, B., He, W., Kodama, M., . . . Wade, M. (2022). Climate change and COP26: Are digital technologies and information management part of the problem or the solution? An editorial reflection and call to action. *International Journal of Information Management*, 63, 102456. <https://doi.org/10.1016/j.ijinfomgt.2021.102456>
20. Edwards, R., Thurman, P. J., Plested, B., & Swanson, L. (2020). The Community Readiness Model: Research to Practice. *ResearchGate*. [https://doi.org/10.1002/\(SICI\)1520-6629\(200005\)28:3](https://doi.org/10.1002/(SICI)1520-6629(200005)28:3)
21. Education for disaster preparedness - PrepareCenter. (2021, August 21). *PrepareCenter*. <https://preparecenter.org/resource/education-for-disaster-preparedness/#:~:text=Education%20for%20disaster%20preparedness%20can,people%20during%20and%20after%20emergencies.>
22. Ellens, J. H. (2017). *Handbook of the psychology of religion and spirituality*. *Choice Reviews Online*, 51(6), 51–3189. <https://doi.org/10.5860/choice.51-3189>
23. Ferri, F., Grifoni, P., & Guzzo, T. (2020b). Online learning and emergency remote teaching: Opportunities and challenges in emergency situations. *Societies*, 10(4), 86. <https://doi.org/10.3390/soc10040086>
24. Floyd, D. L., Prentice-Dunn, S., & Rogers, R. W. (2000). A Meta-Analysis of Research on Protection Motivation Theory. *Journal of Applied Social Psychology*, 30(2), 407–429. <https://doi.org/10.1111/j.1559-1816.2000.tb02323.x>
25. Garmestani, A., Craig, R. K., Gilissen, H. K., McDonald, J., Soininen, N., Van Doorn-Hoekveld, W. J., & Van Rijswijk, H. F. M. W. (2019). The Role of Social-Ecological Resilience in Coastal Zone Management: A Comparative Law Approach to Three Coastal Nations. *Frontiers in Ecology and Evolution*, 7. <https://doi.org/10.3389/fevo.2019.00410>
26. GSDRC (2019, March 22). What is disaster resilience? - GSDRC. *GSDRC - Governance, Social*



- Development, Conflict and Humanitarian Knowledge Services.* <https://gsdrc.org/topic-guides/disaster-resilience/concepts/what-is-disaster-resilience/>
27. Guo, L., He, W., & Wang, J. (2023). Disaster experience and resident risk preference: Evidence from China household finance survey. *PLoS ONE*, 18(11), e0295146. <https://doi.org/10.1371/journal.pone.0295146>
  28. Ishiwatari, M., & Ranghieri, F. (2019). Learning from Megadisasters: Lessons from the Great East Japan Earthquake. <https://doi.org/10.1596/978-1-4648-0153-2>
  29. Ivanic, K., Stolton, S., Arango, C. F., & Dudley, N. (2020). Protected Areas Benefits Assessment Tool + (PA-BAT+): A tool to assess local stakeholder perceptions of the flow of benefits from protected areas. <https://doi.org/10.2305/iucn.ch.2020.patrs.4.en>
  30. Janz, N.K., & Becker, M.H. (1984). Historical Origins of the Health Belief Model. <https://journals.sagepub.com/doi/10.1177/109019817400200403>
  31. Japan Meteorological Agency. (2020). <https://www.jma.go.jp/jma/indexe.html>
  32. Johnson, V. A., Ronan, K. R., Johnston, D. M., & Peace, R. (2020). Evaluations of disaster education programs for children: A methodological review. *International Journal of Disaster Risk Reduction*, 9, 107–123. <https://doi.org/10.1016/j.ijdr.2014.04.001>
  33. Kamil, P. A., Utaya, S., Sumarmi, N., & Utomo, D. H. (2020e). Improving disaster knowledge within high school students through geographic literacy. *International Journal of Disaster Risk Reduction*, 43, 101411. <https://doi.org/10.1016/j.ijdr.2019.101411>
  34. Lavelle, F. M., Ritchie, L. A., Kwasinski, A., & Wolshon, B. (2019). Critical Assessment of Existing Methodologies for Measuring or Representing Community Resilience of Social and Physical Systems. <https://doi.org/10.6028/nist.gcr.15-1010>
  35. Lillywhite, B., & Wolbring, G. (2022). Risk Narrative of Emergency and Disaster Management, Preparedness, and Planning (EDMPP): The importance of the ‘Social.’ *Sustainability*, 15(1), 387. <https://doi.org/10.3390/su15010387>
  36. Luthar, S. S., Cicchetti, D., & Becker, B. (2000). The construct of resilience: A critical evaluation and guidelines for future work. *Child Development*, 71(3), 543–562. <https://doi.org/10.1111/1467-8624.00164>
  37. Maddux, J. E., & Rogers, R. W. (1983). Protection Motivation and Self-Efficacy: A Revised Theory of Fear Appeals and Attitude Change. *Journal of Experimental Social Psychology*, 19(5), 469–479. <https://www.sciencedirect.com/science/article/pii/0022103183900239?via%3Dihub>
  38. Masten, A. S. (2014). Global perspectives on resilience in children and youth. *Child Development*, 85(1), 6–20. <https://doi.org/10.1111/cdev.12205>
  39. Masten, A. S., & Narayan, A. J. (2019). Child Development in the context of Disaster, war, and Terrorism: Pathways of risk and resilience. *Annual Review of Psychology*, 63(1), 227–257. <https://doi.org/10.1146/annurev-psych-120710-100356>
  40. McGee, T. K., & Penning-Rowsell, E. C. (2022). *Routledge Handbook of Environmental Hazards and Society*. In *Routledge eBooks*. <https://doi.org/10.4324/9780367854584>
  41. Milne, S., Sheeran, P., & Orbell, S. (2000). Prediction and Intervention in Health-Related Behavior: A Meta-Analytic Review of Protection Motivation Theory. *Journal of Applied Social Psychology*, 30(1), 106–143.
  42. Moghadas, M., Asadzadeh, A., Vafeidis, A., Fekete, A., & Kötter, T. (2019). A multi-criteria approach for assessing urban flood resilience in Tehran, Iran. *International Journal of Disaster Risk Reduction*, 35, 101069. <https://doi.org/10.1016/j.ijdr.2019.101069>
  43. Nakanishi, H. (2022). *Disaster Resilience and Sustainability*. <https://doi.org/10.4324/9781003150190>
  44. NFER-NELSON. Maddux, J. E., & Stanley, M. A. (1986). Self-efficacy theory in contemporary psychology. *Journal of Social and Clinical Psychology*, 4(3), 240–255. <http://dx.doi.org/10.1521/jscp.1986.4.3.249>
  45. Norris, F. H., Stevens, S. P., Pfefferbaum, B., Wyche, K. F., & Pfefferbaum, R. L. (2008). Community resilience as a metaphor, theory, set of capacities, and strategy for disaster readiness. *American Journal of Community Psychology*, 41(1-2), 127–150. <https://doi.org/10.1007/s10464-007-9156-6>
  46. Olano, G. (2019, February 13). Philippines unprepared for disasters, says Harvard study. *Insurance Business Asia*. <https://www.insurancebusinessmag.com/asia/news/breaking-news/philippines-unprepared-for-disasters-says-harvard-study-158769.aspx>