INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume VI, Issue III
February 2025
Available online at https://www.instabrightgazette.com

****

LAGING HANDA: INTEGRATING DISASTER AWARENESS PREPAREDNESS UTILIZING THE ENHANCED SELF LEARNING MODULE IN SCIENCE AND HEALTH

HAZEL GRACE V. ALVAREZ
Teacher III
Navotas Elementary School
hazelgrace.alvarez@deped.gov.ph

ABSTRACT

This action research aimed to investigate the effectiveness of a self- learning module (SLM) in increasing the elementary students' disaster awareness and preparedness. The study involved the Grade 3 to Grade 6 randomly selected from 9 sections under the regular and new curriculum. The intervention comprised a series of practical activities, named "Laging Handa," integrated into the SLM on the topic about Awareness and Preparedness in Calamities. These activities included creating family emergency plans, home escape plans, and household emergency kits. Quantitative data were gathered through a researcher-made instrument consisting of Likert scale and checklist items, while qualitative data emerged from a focused group discussion. The results indicated a significant improvement in both disaster awareness and preparedness among the participants. Before the intervention, the students already exhibited a high level of awareness; however, the intervention further enhanced their understanding of disaster preparedness. The "Laging Handa" activities facilitated hands-on learning and equipped students with practical skills and knowledge to respond effectively to disasters. The insights from the participants' responses emphasized the importance of emergency kits, escape plans, and knowledge about disaster management. The study also revealed the intervention's ripple effect, as students shared their newfound knowledge with their families, contributing to improved community preparedness. Overall, the research highlights the crucial role of schools in promoting disaster awareness and preparedness.

****

****

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume VI, Issue III
February 2025
Available online at https://www.instabrightgazette.com

Integrating disaster risk reduction principles into classroom instruction can foster a culture of safety and resilience among students.

CONTEXT AND RATIONALE

The Philippines is considered one of the most typhoon-prone countries in the world (Strobl, 2019) along with other disasters. With this, Republic Act No. 10121 or the "Philippine Disaster Risk Reduction and Management Act of 2010", was instituted. It aims for the development and implementation policies, plans, actions for disaster risk reduction and management in the country (RA no. 10121, 2010). Anchored on the provisions of RA 10121, the Department of Education (DepEd) issued DepEd Order No. 033, series of 2021, with the purpose of strengthening school-based preparedness and response measures for tropical cyclones, flooding and other weather-related disturbance and calamities. This order provides specific instructions for the necessary measures and actions to be done by schools before, during and after a disaster. More so, it also provides a legal basis for the integration of disaste risk reduction management in the school programs and activities (DepEd Order No. 033, 2021).

Given these legal bases, Philippine households must not only have awareness on calamities and natural disasters, especially typhoons, but also must make the necessary preparations. Developing awareness and disaster preparedness in communities is considered challenging (Victoria, 2003). Multidisciplinary approaches as well as the engagement of different institutions are necessary to equip communities in general and households in particular for disaster risk reduction and management (Victoria, 2003). Although Filipino resilience is legendary and admirable, preparedness is what can minimize the impact of disasters on lives and properties.

With this perspective, schools will play a significant role in enhancing disaster awareness and preparedness among students. DRRM policies and actions may be seamlessly integrated in the classroom instruction specifically in earth sciences topics. A number of studies support integration of DRRM in classroom instruction. In a study conducted by Nurdin (2019),

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume VI, Issue III
February 2025
Available online at https://www.instabrightgazette.com

it was found that the integration in the classroom instruction of DRRM principles has a positive impact both for teachers and students as this will make them more engaged. Furthermore, the study concluded that integration of DRRM in the classroom instruction was one of the means of making DRRM programs more sustainable. In another study conducted in different schools in Asia, researchers found that students can become active participants in the preparation for disasters (Lim et al., 2016). This was also the conclusion of a study conducted among schools by Bevc in 2008, where she concluded that in equipping students for DRRM preparedness, they can become active influencers in the family and community.

With this, the researchers sought to explore how the integration of DRRM in the self-learning modules will improve students' level of disaster awareness and preparedness.

INNOVATION, INTERVENTION AND STRATEGY

In Grade 3 to 6 Science and Health, there are two specific learning competencies that aim for students to firstly "explain how typhoon develops and how it is affected by landmasses and bodies of water" (coded as S8ES-IIe-20) and secondly, "trace the path of typhoons that enter the Philippine Area of Responsibility (PAR) using a map and a tracking data" (coded as S8ES-IIf-21). These competencies are developed under the topic entitled, Typhoon Formation and Tracking Typhoons, respectively. The self-learning modules (SLM) for these lessons include a brief background information about the topic and series of activities that will engage students to better understand typhoon formation and tracking. Although the noted self-learning modules can provide students with a theoretical understanding of typhoon formation and engage them to plot activities that will make them track typhoon path and direction, the practical application of the lesson especially as it relates to disaster awareness and preparedness of students may be considered very minimal. With this, the researchers proposed to enhance the noted self-learning module to include activities that will engage students to further improve their level of awareness on typhoons and will require them to perform tasks that will make them more prepared when a typhoon comes.

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume VI, Issue III
February 2025
Available online at https://www.instabrightgazette.com

The proposed enhancement will be in the form of a series of practical activities that students will be required to perform. These activities will is named as Laging Handa" activities as it contextualizes the necessary preparations for disaster (See Appendix A). There will be three specific activities that will be integrated in the self-learning modules. The first activity will require students to meet with their household members and draft their family emergency plan. The second activity will require the students to create their home escape plan. The final activity will comprise the preparation of the household emergency kit. Students will be encouraged to prepare actual emergency kits that will be ready for use.

It is aimed that as the students engage in the Laging Handa activities, their level of disaster awareness and level of disaster preparedness will improve.

ACTION RESEARCH QUESTIONS

This study aimed to determine the effectiveness of an enhanced self learning module (SLM) as an intervention in increasing students' level of awareness and disaster preparedness.

Specifically, this study sought to answer the following questions:

1. What is the level of disaster awareness of the participants before and after the intervention?
2. What is the level of disaster preparedness of the participants before and after the intervention?
3. Is there a significant difference in the level of disaster awareness of the participants before and after the intervention?
4. Is there a significant differe nce in the level of disaster preparedness of the participants before and after the intervention?
5. What insights emerged from the participants as they engage in activities that enhanced their typhoon disaster awareness and preparedness?

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume VI, Issue III
February 2025
Available online at https://www.instabrightgazette.com

****

ACTION RESEARCH METHODS

This study employed an action research design. Action research is particularly suitable for educational settings as it focuses on practical solutions to improve teaching and learning practices (Mertler, 2016). In this context, the study aimed to enhance disaster awareness and preparedness among Grade 3 to Grade 6 through the integration of a self-learning module (SLM) combined with "Laging Handa" activities.

Participants and/or Other Sources of Data and Information

The participants of the study comprised two hundred ninety-one (291) students from Grade 3 to Grade 6 with a total of 8 sections.

Grade 3 to Grade 6 students were specifically chosen for this study due to the alignment of the intervention with their curriculum. The intermediate level in Science curriculum includes essential learning competencies directly related to disaster awareness and preparedness. Notably, students are expected to "explain how typhoon develops and how it is affected by landmasses and bodies of water" (coded as S8ES-IIe-20) and "trace the path of typhoons that enter the Philippine Area of Responsibility (PAR) using a map and tracking data" (coded as S8ES-IIf-21). These competencies make tudents particularly suitable for the study, as the intervention directly supports and enhances their learning objectives related to understanding and preparing for typhoons.

In addition to the students who were administered the questionnaire, a focused group discussion (FGD) was conducted with seven (7) participants, who were randomly chosen from the respondents. These participants were selected to provide a diverse representation of the larger group and to gather in-depth qualitative data. The FGD aimed to capture detailed insights and personal experiences regarding the intervention, allowing for a richer understanding of its impact. This qualitative approach complements the quantitative data, providing a holistic view of the intervention's effectiveness and the participants' perspectives on disaster preparedness and awareness. The inclusion of this qualitative component helps to

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume VI, Issue III
February 2025
Available online at https://www.instabrightgazette.com

triangulate the findings, ensuring a more comprehensive analysis of the "Laging Handa" activities.

The researchers also actively participated in the study by implementing the "Laging Handa" intervention. This researcher took on the dual role of educator and facilitator, delivering the enhanced self-learning modules (SLMs) and guiding the students through the disaster preparedness activities. This involvement allowed the researcher to monitor the implementation process closely. The researcher is also the DRRM coordinator of the school which led to her to conduct this action research.

Data Collection Methods

A researcher-made instrument that measured the level of disaster awareness and preparedness was utilized in this study. The questionnaire was divided into two parts. The first part was a measure of students' disaster awareness. This Likert scale measure was composed of 15 statements related to facts and information about disasters. Participants chose their level of agreement by encircling the number corresponding to the given choices. The second part was the checklist measure of the disaster preparedness of the students. It was composed of 15 questions which could be answered "YES" or "NO" by the participants. This questionnaire underwent validity and reliability testing prior to utilization.

For qualitative data, an FGD guide was utilized to structure the discussion, ensuring that key themes related to disaster preparedness and the effectiveness of the intervention were thoroughly explored. This guide included open-ended questions designed to elicit detailed responses about the students' experiences, the perceived impact of the intervention, and any suggestions for improvement.

After receiving approval to conduct the study, the researcher drafted and finalized the enhanced self-learning module (SLM) and the research instrument. The researcher-made instrument was also tested for validity and reliability. Once the instrument's validity and reliability were established, it was administered to the participants as a pretest, serving as a baseline.

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume VI, Issue III
February 2025
Available online at https://www.instabrightgazette.com

Following the pretest, participants were taught using the enhanced learning module. Learner-Teacher Engagement activities ensured that students actively participated and completed the tasks required in the SLM. After the intervention, the post-test on the level of disaster awareness and preparedness was administered. Additionally, a focused group discussion (FGD) was conducted with selected participants to gather qualitative information regarding their experiences with the intervention.

The data gathered from both the quantitative and qualitative methods were then encoded, analyzed, and interpreted to draw comprehensive insights into the effectiveness of the "Laging Handa" intervention.

Data Analysis Plan. The data analysis plan was as follows: For objectives one and two, the mean and standard deviation were used to measure and describe the level of awareness and preparedness of the participants of the study. The following arbitrary scales were used to interpret the mean for the level of disaster awareness and the level of disaster preparedness, respectively.

Level of Disaster Awareness

Numerical Value	Interpretation
15 – 27 -	Very Low Level of Awareness
28 – 39 -	Low Level of Awareness
40 – 51 -	Moderate Level of Awareness
52 – 63 -	High Level of Awareness
64 - 75 -	Very High Level of Awareness

Level of Disaster Preparedness

Numerical Value	Interpretation
0 -3 -	Very Low Level of Preparedness
4 - 6 -	Low Level of Preparedness
7 - 9 -	Moderate Level of Preparedness
10 - 12 -	High Level of Preparedness
13 - 15 -	Very High Level of Preparedness

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume VI, Issue III
February 2025
Available online at https://www.instabrightgazette.com

For objectives three and four, t-tests were utilized to determine significant differences in the level of awareness and preparedness when pretest and post-test results were compared.

For objective five, the thematic analytical scheme was applied in the processing of qualitative data resulting from the focus group discussion. Thematic analysis started with familiarization of the gathered qualitative data, followed by generating codes, searching for themes, and then finally defining and finalizing the themes (Maguire & Delahunt, 2017).

Ethical Considerations

A consent letter serving as a waiver was sent to the parents of the students in order to seek approval for the participation of their son/daughter in the study. An orientation was conducted to clearly explain the purpose of the study to the participants. Participants were assured of confidentiality and privacy of information gathered through the survey questionnaires and the focused group discussion. Furthermore, pretest and post-test survey results were not graded and did not affect students' formal academic performance in class.

DISCUSSION OF RESULTS AND REFLECTION

This action research investigated the impact of an enhanced self-learning module (SLM) for students' disaster awareness and preparedness. Quantitative data and qualitative data were gathered, analyzed and interpreted. This section not only discusses the empirical outcomes but also reflects on the broader implications for integrating disaster risk reduction into educational practices, ultimately fostering a culture of safety and resilience.

Discussion of Results

Level of Awareness

Table 1 presents the statistical results indicating that both before and after the intervention, the participants' awareness levels were classified as "Very High." This means

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume VI, Issue III
February 2025
Available online at https://www.instabrightgazette.com

that, on average, the participants had a high level of awareness regarding disaster awareness both before and after the intervention.

Table 1 Level of Awareness Before and After the Intervention (n=130)

Level of Awareness	*Mean*	*SD*	Interpretation
Before the Intervention	64.55	6.13	Very High Level of Awareness
After the Intervention	68.50	5.81	Very High Level of Awareness

Before the intervention, the participants had an average awareness level of 64.55 with a standard deviation of 6.13. After the intervention, the participants' average awareness level increased to 68.50, with a slightly lower standard deviation of 5.81. The increase in the average awareness level suggests that the intervention had a positive impact on the participants' understanding of disaster awareness and preparedness. The fact that the standard deviation decreased after the intervention indicates that the participants' awareness levels became more consistent, with less variation among individual responses. This suggests that the intervention was effective in raising the awareness levels across the group, resulting in a more uniform improvement in their understanding of disaster preparedness.

The fact that the participants' awareness level was already relatively high before the intervention suggests that they might have had some prior knowledge or exposure to disaster-related information. However, the intervention managed to build upon their existing awareness and further enhance their preparedness, leading to the observed increase in the average awareness level.

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume VI, Issue III
February 2025
Available online at https://www.instabrightgazette.com

Level of Preparedness

The statistical results in Table 2 indicate a significant improvement in participants' level of preparedness after the intervention. Before the intervention, the participants had an average preparedness level of 9.64, categorized as a "Moderate Level of Preparedness." After the intervention, their average preparedness level increased to 12.43, categorized as a "High Level of Preparedness."

Table 2 Level of Preparedness Before and After the Intervention (n=130)

Level of Preparedness	*Mean*	*SD*	Interpretation
Before the Intervention	9.64	3.35	Moderate Level of Preparedness
After the Intervention	12.43	2.48	High Level of Preparedness

The increase in the average preparedness level from before (9.64) to after (12.43) the intervention clearly demonstrates the positive impact of the intervention. The participants' preparedness levels improved by approximately 2.79 points on average. This improvement suggests that the intervention effectively conveyed important information, knowledge, and skills related to disaster preparedness, resulting in a significant enhancement of participants' overall preparedness.

The decrease in the standard deviation after the intervention (from 3.35 to 2.48) also indicates that the participants' preparedness levels became more consistent. This means that the intervention had a relatively uniform positive effect on the participants' preparedness, leading to a more aligned and cohesive improvement across the group.

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume VI, Issue III
February 2025
Available online at https://www.instabrightgazette.com

****

Difference on the Level of Awareness

Table 3 presents the statistical test resulting to a t-value of -5.743 and a p- value of 0.001. This shows that the intervention had a significant impact on the participants' level of awareness. The participants' average awareness level increased from 64.55 before the intervention to 68.50 after the intervention. The statistically significant increase in awareness demonstrates that the intervention had a positive impact on the participants' understanding on disaster awareness This emphasizes the importance of continuing efforts to improve disaster awareness among students.

Table 3 Level of Awareness Before and After the Intervention (n=130)

Level of Awareness	*M*	*SD*	*df*	*t*	*p*	*Interpretation*
Before the Intervention	64.55	6.13	129	-5.743	.001	Significant
After the Intervention	68.50	5.81				

Difference on the Level of Preparedness

The statistical test resulted in a t-value of -9.271 and a p-value of 0.001. The small p-value (0.001) indicates that this difference is statistically significant. The statistical result clearly shows that the intervention had a highly significant impact on the participants' level of preparedness. The participants' average preparedness level increased from 9.64 before the intervention to 12.43 after the intervention. The significant increase in preparedness levels suggests that the intervention had a substantial positive impact on the participants' readiness for disasters.

****

****

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume VI, Issue III
February 2025
Available online at https://www.instabrightgazette.com

Table 4 Level of Preparedness Before and After the Intervention (n=130)

Level of Preparedness	*M*	*SD*	*df*	*t*	*p*	*Interpretation*
Before the Intervention	9.64	3.35	129	-9.271	.001	Significant
After the Intervention	12.43	2.48				

Insights from Students

Six (6) themes emerged from the responses of students during the focus group discussion in relation to the value of the *Laging Handa* intervention. These themes were: importance of emergency kit and escape plan; additional knowledge about disaster; family and community preparedness; avoiding panic and knowing what to do; and appreciation for the intervention.

Importance of Emergency Kit and Escape Plan

Students mentioned that having an emergency kit and an emergency escape plan is of great significance. They realized the necessity of being prepared with essential items and knowing what to do in the event of a disaster such as a typhoon or earthquake. This theme was consistently highlighted by most of the students.

Below are student responses in support of this theme:

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume VI, Issue III
February 2025
Available online at https://www.instabrightgazette.com

- "I learned about how important it is to have an emergency kit and an emergency escape plan for whenever there is a typhoon or an earthquake. And I was also able to teach my younger siblings and my parents on how to prepare during and after… before, during, and after an earthquake and typhoon." (Student 1)

Additional Knowledge about Disaster

Many students mentioned that the intervention helped them gain additional knowledge about typhoons and earthquakes. They learned how to gather information about upcoming calamities and understood the importance of being aware of weather updates and potential hazards.

Below are student responses in support of this theme:

- "I learned that having knowledge about typhoon and earthquake is significant. Natun-an ko man kung ano na ang PAGASA, kung diin maka gather information kung may mga, uhm, typhoon or earthquake, kag kung paano mag ready sang emergency kit, amo na."*(I realized the importance of being knowledgeable about typhoons and earthquakes. I learned about PAGASA, where to gather information about typhoons or earthquakes, and how to prepare an emergency kit.) (*Student 2)

  (I learned a lot d, especially about the importance of an emergency kit. Before the lesson from our teacher, we didn't have any emergency kit prepared at home, no designated exits, and no meeting place. But after the lesson, I talked to my family, and we realized the necessity of being prepared for

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume VI, Issue III
February 2025
Available online at https://www.instabrightgazette.com

typhoons, knowing what to do before, during, and after the typhoon.) (Student 6)

Family and Community Preparedness

The intervention had a positive impact on the students' families as well. Some students mentioned teaching their younger siblings and parents about disaster preparedness, and their families also became more proactive in preparing emergency kits and discussing evacuation plans. This theme highlights the ripple effect of the intervention on the broader community preparedness.

Below are student responses in support of this theme:

- *It really helped us become more prepared, and now we know what to do in case of an emergency. Before, we had no knowledge about emergency plans, but now we do.*(Student 3)
- " *I learned that having an emergency kit and a designated meeting place in the neighborhood is essential. Before, I had no idea about it... in case of a typhoon... and having an emergency kit)* (Student 4)
- " *I learned how to prepare an emergency kit and we created emergency contact numbers for our safety. I also gained knowledge about typhoons, and we prepared an emergency kit at home.*) (Student 5)

Avoiding Panic and Knowing What to Do

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume VI, Issue III
February 2025
Available online at https://www.instabrightgazette.com

****

The students mentioned that they learned how to avoid panicking during disasters and understood the appropriate actions to take before, during, and after a calamity. This knowledge contributed to increased confidence and preparedness in handling emergency situations.

Below are student responses in support of this theme:

- "" *(Yes, I became aware of specific things like doors, windows, and what to do during an emergency. I now know where to go and what actions to take to stay safe.)* (Student 2)

*(Yes, ma'am, there was an improvement because before the lesson, we thought it was okay not to have an emergency kit or escape plan since we didn't see its necessity. But after the lesson, I understood the importance of having an emergency kit and escape plan to know what to do during a typhoon and be aware of everything that is essential and not to be taken lightly.) (*Student 6)

Appreciation for the Intervention

The students expressed gratitude for the intervention and recognized its value in increasing their awareness and preparedness for disasters. They appreciated the newfound knowledge and skills that would be beneficial for their safety and that of their communities.

Below are student responses in support of this theme:

- *(It really helped us become more prepared, and now we know what to do in case of an emergency. Before, we had no knowledge about emergency plans, but now we do.)* (Student 3)

****

****

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume VI, Issue III
February 2025
Available online at https://www.instabrightgazette.com

- *(Yes, it really helped, especially because I had no idea before about the importance of being prepared for typhoons and earthquakes. After the lesson, I realized how crucial it is to know this information, especially if you have no idea about it. The last part, the Emergency Home Escape Plan, helped me locate the rightful place to be prepared for calamities.*

The responses from the students shed light on how the intervention positively impacted their disaster awareness and preparedness. The themes identified in the students' responses highlight the significant lessons they learned from the intervention. They now understand the importance of having an emergency kit and escape plan, gaining knowledge about typhoons and earthquakes, and preparing their families for potential disasters.

The intervention not only enhanced individual preparedness but also had a ripple effect on their families and communities. The students were able to share their newfound knowledge with their parents and younger siblings, leading to improved family preparedness. Further, the students acknowledged that they now know how to avoid panicking during emergencies and are aware of what actions to take to ensure their safety. Having designated meeting places and emergency contacts became a vital part of their preparedness plans. The students now recognize the significance of knowing where to gather in case of an emergency and having essential contacts to reach out to.

Overall, the students expressed gratitude for the intervention, appreciating the valuable information and skills they gained. This positive response indicates that the intervention successfully achieved its goal of increasing disaster awareness and preparedness among the students.

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume VI, Issue III
February 2025
Available online at https://www.instabrightgazette.com

In conclusion, the study's findings support the effectiveness of the *Laging Handa* Activities as intervention program fro students in order to improve their disaster awareness and preparedness. This intervention resulted in increased awareness and higher levels of preparedness among the participants. The positive impact of the intervention highlights the significance of educational initiatives in building resilient communities capable of effectively responding to disasters and ensuring the safety of all..

Summary of Findings

The general objective of this study was to evaluate the effectiveness of integrating "Laging Handa" activities into the Grade 3 to Grade 6 Science curriculum to enhance students' disaster awareness and preparedness. .

This study utilized an action research design, which is particularly suited for educational settings as it focuses on practical solutions to improve teaching and learning practices. The study involved 291 students from Grade 3 to Grade 6. Quantitative data were collected using a researcher-made instrument, which included a Likert scale for disaster awareness and a checklist for disaster preparedness. These instruments were administered as pretests and post- tests to measure the changes in students' knowledge and preparedness levels before and after the intervention. Additionally, qualitative data were gathered through a focused group discussion (FGD) with seven participants selected from the respondents.

Based on the research questions, the findings indicated that:

1. There was an increase disaster awareness from a very high level before the intervention to a very high level after the intervention.
2. The level of disaster preparedness increased from a moderate level

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume VI, Issue III
February 2025
Available online at https://www.instabrightgazette.com

before the intervention to a high level after the intervention

3. The level of disaster awareness showed a significant increase from a pre- intervention mean score of 64.55 to a post-intervention mean score of 68.50 (t = -5.743, p = 0.001).

4. The level of disaster preparedness showed a significant increase from a pre- intervention mean score of 9.64 to a post-intervention mean score of 12.43 (t = - 9.271, p = 0.001).

Participants emphasized the importance of emergency kits and escape plans, gained additional knowledge about disasters, positively impacted their family and community preparedness, increased their confidence in handling emergencies, and appreciated the practical knowledge and skills gained from the intervention.

Conclusions

The findings of this study clearly indicate the effectiveness of the enhanced self-learning module with the integrated "Laging Handa" activities in increasing the students' level of disaster awareness and preparedness. The study has provided valuable insights that can be applied in the future to further improve disaster preparedness among students and communities.

One key insight from the study is the importance of practical application and hands-on activities in disaster preparedness education. By engaging students in activities like creating emergency plans and assembling emergency kits, they not only gain theoretical knowledge but also acquire essential skills and take proactive measures for their safety. The "Laging Handa" activities foster a sense of responsibility among the students, making them active

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume VI, Issue III
February 2025
Available online at https://www.instabrightgazette.com

participants in preparing themselves, their families, and their communities for disasters.

Recommendations

The study underscores the significant role that schools can play in enhancing disaster awareness and preparedness. Integrating disaster risk reduction and management principles into classroom instruction, particularly within the earth science curriculum, has proven to be an effective strategy. This finding emphasizes the importance of embedding disaster preparedness education across various subjects to foster a culture of safety and resilience among students. Practical implications include the need for schools to adopt a hands-on, experiential approach to disaster education, ensuring students gain both theoretical knowledge and practical skills.

To expand the reach and impact of the "Laging Handa" activities, it is highly recommended to implement these interventions across different grade levels . The success of the intervention indicates its potential for broader application, which can be further enhanced through interdisciplinary integration. Schools should consider incorporating disaster preparedness education in various subjects, reinforcing the importance of holistic disaster awareness and preparedness training. This cross-curricular approach ensures that all students receive comprehensive disaster education, which is crucial for building a well-rounded understanding and readiness.

From a theoretical standpoint, the study contributes to the growing body of literature on disaster education by demonstrating the effectiveness of targeted interventions in improving preparedness and awareness. Future research could explore the long-term impacts of such interventions and investigate their applicability in diverse educational settings.

Policy implications are equally significant. Educational policymakers should advocate for the integration of disaster preparedness education into national curricula, ensuring that it becomes a standard component of student learning. Furthermore, it is recommended that the study's results be shared and disseminated among educators and school administrators through professional development activities. Sharing the positive outcomes and insights from

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume VI, Issue III
February 2025
Available online at https://www.instabrightgazette.com

the research during Learning Action Cell (LAC) sessions, departmental meetings, and institutional in-service training programs can inspire other teachers to adopt similar approaches in their classrooms.

The action research on disaster awareness and preparedness utilizing the enhanced self-learning module with "Laging Handa" activities has proven to be a valuable and effective intervention. The significant improvement in students' awareness and preparedness levels highlights the crucial role of educational initiatives in fostering disaster-resilient communities. By empowering students with the necessary knowledge and skills to handle disasters confidently, schools contribute to building a safer and more resilient future for communities. Educational institutions, supported by policy changes and theoretical advancements, can play a central role in this vital endeavor.

Reflection

The findings of this study demonstrate the significant impact of the enhanced self-learning module on improving disaster awareness and preparedness among students. Quantitative data showed a substantial increase in both awareness and preparedness levels after the intervention. The qualitative insights further emphasized the value of practical measures such as emergency kits and escape plans, highlighting how the intervention also positively influenced family and community preparedness. These results underscore the importance of hands-on, practical education in fostering a culture of safety and resilience.

The broader implications of integrating disaster risk reduction into educational practices are profound. The success of the "Laging Handa" activities indicates that schools play a critical role in preparing students for emergencies, suggesting that similar initiatives could be expanded across different grade levels and subjects. By incorporating disaster preparedness education into the curriculum, schools can develop a more comprehensive approach to safety and resilience, ensuring that students are equipped with both knowledge and practical skills. Moreover, sharing the study's positive outcomes with other educators can promote the adoption ofeffective strategies nationwide, contributing to the creation of more

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume VI, Issue III
February 2025
Available online at https://www.instabrightgazette.com

disaster-resilient communities. This study highlights the essential role of educational interventions in enhancing disaster preparedness and underscores the need for ongoing efforts to integrate such programs into school curricula.

ACTION PLAN

Below is the proposed action plan.

Activity/Program	Objectives/ Performance Indicators	Resources Needed	Responsible Persons	Output	Time Frame	Remarks
Dissemination and Utilization	Share study results and utilize enhanced modules across the institution	Presentation materials, meeting schedules	Science teachers, Department Head, Principal	Dissemination during LAC sessions, faculty meetings, and in-service training programs	December to February	
Teacher Training and Development	Equip teachers with skills to implement enhanced SLMs effectively	Workshop materials, trainers, training venue	Program Developers, Master Teachers	Trained teachers	September to January	
Pilot Expansion to Additional Sections	Test effectiveness of enhanced SLMs in different sections	Revised SLMs, teaching aids	Intermediate Teachers	Data on module effectiveness	February to March	
Curriculum Integration	Integrate disaster preparedness across various subjects	Subject matter experts, instructional designers	Curriculum Development Team	Comprehensive disaster preparedness curriculum	June to April	
School-wide Implementation	Implement revised SLMs across all Grade 3 to 6 sections	SLMs for Grade 3 to 6 , teaching aids	All Grade level Teachers	School-wide adoption of modules	February to March	

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume VI, Issue III
February 2025
Available online at https://www.instabrightgazette.com

Teacher Support and Community Involvement	Ensure ongoing teacher support and engage community in disaster preparedness	Meeting space, community resources	School Administration, Local Government Units	Continuous teacher and community engagement	Ongoing	
Continued Monitoring and Evaluation	Continuously assess the effectiveness and impact of the program	Data collection tools, evaluation framework	Research Team	Periodic evaluation reports	Ongoing	
Continuous Improvement	Regularly update and refine modules based on feedback and new research	Expert reviewers, instructional designers	Curriculum Development Team	Updated modules	Ongoing	

REFERENCES

Bevc, C. A. (2008). [Review of Towards a Culture of Prevention: Disaster Risk Reduction Begins at School: Good Practices and Lessons Learned, by Valency, R. Alain and Lazarte, Jimena]. Children, Youth and Environments, 18(1), 521–524. http://www.jstor.org/stable/10.7721/chilyoutenvi.18.1.0521

DepEd Order No. 033, School-Based Disaster Preparedness and Response Measures for Tropical Cyclones, Flooding, and other Weather-Related Disturbances and Calamities. (2021). https://www.deped.gov.ph/wp-content/uploads/2021/08/DO_s2021_033.pdf

Lim, M., Co, R., Riesmasari, C., Chanphearum, K., Pimmata, O., & Berandi, R. (2016). Comprehensive school safety practices in Asia. Retrieved from https://www.wvi.org/sites/default/files/Comprehensive%20Sch%20Safety%20Practices%20Asia_Web.pdf

Maguire, M., & Delahunt, B. (2017). Doing a thematic analysis: A practical, step-by- step guide for learning and teaching scholars. All Ireland Journal of Higher Education, 9(3).

Mertler, C. A. (2016). Action research: Improving schools and empowering educators (5th ed.). SAGE Publications.

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume VI, Issue III
February 2025
Available online at https://www.instabrightgazette.com

National Disaster Risk Reduction and Management Council (NDRRMC). (2014). Y it Happened? Learning from Typhoon Yolanda.

Nurdin, N. (2019). Disaster risk reduction in education and the secondary high school science curriculum in Indonesia (Doctoral dissertation, UCL (University College London)).

Office of Civil Defense (OCD) and National Disaster Risk Reduction and Management Council (2022). Final report for Typhoon Odette.

https://ndrrmc.gov.ph/attachments/article/4174/Final_Report_for_Tropical_Cyclone_ODETTE_2021.pdf

Republic Act No. 10121, Philippine Disaster Risk Reduction and Management Act of 2010 (2010). https://www.officialgazette.gov.ph/2010/05/27/republic-act-no-10121/

Strobl, E. (2019). The impact of typhoons on economic activity in the Philippines: Evidence from nightlight intensity. Asian Development Bank Economics Working Paper Series, (589).

United States Marine Corps. (2022, May). Ready Marine Corps Emergency Preparedness Program. Retrieved from MARINES The official website of the Unite

Victoria, L. P. (2003). Community-based disaster management in the Philippines: Making a difference in people's lives. Philippine Sociological Review, 51, 65-80.

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume VI, Issue III
February 2025
Available online at https://www.instabrightgazette.com

****

Appendix A - *Laging Handa* Activities

Activity 1

MAKING A FAMILY EMERGENCY PLAN

When you fail to prepare, you prepare to fail. It is important to always be prepared in any impending disaster. Two things that a family needs to prepare are **emergency plan** and **communication plan**. A written emergency plan is used to formalize your preparations. In reading the plan, everyone in the family should understand what to do, where to go, and what to take in the event of an emergency. (United States Marine Corps, 2022) On the other hand, an effective communication plan is a written record (a sheet or card) that instructs each member of the family to call an agreed upon point of contact and how to communicate critical information like location and status with each other in an emergency.

Create a family emergency plan by filling out the card/sheet below. Multiple copies of the card should be made and given to each member of the family and to be posted in an area that is easily visible to all family members.

FAMILY EMERGENCY PLAN

Person to contact during emergency: _____

Contact number: _____

Facebook/Messenger name: _____

_____

Out-of-town contact person: _____

Contact Number: _____

Neighborhood Meeting Place: _____

Police Contact Number: _____

Hospital Contact Number: _____

City DRRM Contact Number: _____

Bureau of Fire Contact Number:

_____

_____

Additional Important Numbers and Information:

_____

_____

****

****

INSTABRIGHT e-GAZETTE

ISSN: 2704-3010

Volume VI, Issue III

February 2025

Available online at https://www.instabrightgazette.com

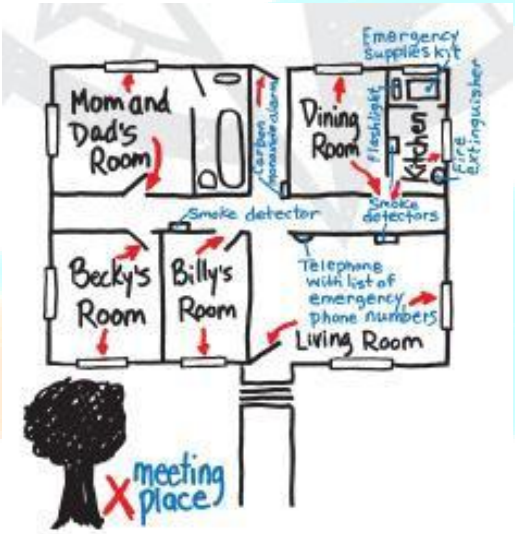
****

Activity 2

HOME ESCAPE PLAN

1. Draw a map of each floor level in your home.
2. Be sure to mark each window, door, and smoke alarm location.
3. Mark two (2) ways out of each room, usually a door and window.
4. Pick a Family Meeting Spot outside your home where everyone can meet following an emergency. This could be an area such as a mailbox, tree, or a neighbor's home.
5. Think about other important things to mark, e.g. your emergency kit location.
6. Put your exit plan to work by practicing it as a family at least twice a year!

Example:



Activity 3 PREPARING AN EMERGENCY KIT

Preparing and having an emergency kit ready is another essential part in disaster preparedness. The kit should include all items that are necessary for survival.

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume VI, Issue III
February 2025
Available online at https://www.instabrightgazette.com

List down all the items that are needed for an emergency kit in your home with reason why the item should be included. Additional points will be given if an actual kit is prepared and shown in a picture that will be included in this activity for submission.

United States Marine Corps. (2022, May). Ready Marine Corps Emergency Preparedness Program. Retrieved from MARINES The official website of the United States Marine Corps: https://www.ready.marines.mil/Make-a-Plan/

RUBRICS FOR SCORING

Family Emergency Plan and Home Escape Plan

	Needs Improvement (2)	Developing (3)	Proficient (4)	Exemplary (5)
Family Emergency Plan	No emergency contacts Missing emergency instructions and/or contact information	Emergency contact listed but aren't well written Most contact information written but not all	Emergency contacts listed Contains instructions and other contact information	Contains concise and well detailed instructions, all contact information completely filled out
Home Escape Plan	Floor plan missing many considerations Missing many roles for people	Floor plan missing some aspects Missing a few roles for people	Floor plan well done Identified roles for people	Well-constructed and thought out floor plan Fully developed roles for people

https://www.rcampus.com/rubricshowc.cfm?code=BX5953B&sp=yes& Emergency Kit

	Poor (2)	Fair (3)	Good (4)	Excellent (5)
Items	None of the items are necessary for survival	A few of the items are clearly necessary for survival	At least 6 items are necessary for survival	All 10 items are necessary for survival

INSTABRIGHT e-GAZETTE

ISSN: 2704-3010

Volume VI, Issue III

February 2025

Available online at https://www.instabrightgazette.com

****

Labels and Uses	None of the items are labeled and there is no reason for including it in the kit	A few of the items are labeled and a reason for each item is included	At least 6 items are labeled and a reason for each item is included	All 10 items are completely labeled and a compelling and detailed reason for each item is stated
Neatness and Effort	The kit is very messy. It looks like the student threw it together at the last minute without care.	The kit is somewhat messy and it looks like the student ran out of time or didn't take care of the project.	The kit is well done with some organization and labeling. It appears the student worked hard on it.	The kit is neatly organized and labeled as necessary. Much time and effort were put into creating this project.
Creativity of Items	The items are not necessary and not creative	A few items included are well thought out and useful for survival.	At least 6 of the items included have been well thought-out and are useful for survival.	All 10 of the items included have been well thought out and are very useful for survival

Source:https://www.rcampus.com/rubricshowc.cfm?code=RXC9BAB&sp=yes&

Questionnaire on Disaster Awareness and Preparedness

Part 1. Disaster Awareness

Direction: Indicate your level of agreement or disagreement on the following statements by encircling the corresponding numbers below.

Statements	Strongly Agree 5	Agree 4	Disagree 3	Strongly Disagree 2	No Knowledge 1
1. Although we cannot prevent a typhoon disaster, we can prepare to reduce the possible damage.	5	4	3	2	1

****

****

INSTABRIGHT e-GAZETTE

ISSN: 2704-3010

Volume VI, Issue III

February 2025

Available online at https://www.instabrightgazette.com

****

2. Philippine Atmospheric, Geophysical, and Astronomical Services Administration (PAGASA), provides reliable information about typhoons and flooding	5	4	3	2	1
3. A typhoon can have very strong winds and heavy rains.	5	4	3	2	1
4. Due to our geographical location, storms and floods have been the principal natural hazard in the Philippines	5	4	3	2	1
5. I know where to get reliable and credible information about timely warning signals for typhoon and flooding.	5	4	3	2	1
6. I know the signs of an impending natural hazard, especially typhoons.	5	4	3	2	1
7. I know the hazard-prone areas in our community	5	4	3	2	1
8. I must make the necessary preparations when there is an upcoming typhoon	5	4	3	2	1
9. Our family should have an emergency plan for any disaster	5	4	3	2	1
10. Children, elderly and persons with disability are most vulnerable during disasters.	5	4	3	2	1
11. Being informed properly about the storm will be helpful for preparation.	5	4	3	2	1
12. Typhoons may causes storm surge specially in areas near bodies of water	5	4	3	2	1
13. A tropical cyclone with maximum wind speed exceeding 185 kph or more than 100 knots is considered	5	4	3	2	1

a tropical depression					
14. Typhoons gain more energy from warm ocean water and less energy over cold water.	5	4	3	2	1

****

****

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume VI, Issue III
February 2025
Available online at https://www.instabrightgazette.com

****

15. It is important to understand where typhoons originate and track its path, so that people will be aware of its speed and strength, duration, places that will be hit or landfall.	5	4	3	2	1

II. Disaster Preparedness

Direction: The following questions below inquire about your preparedness during a disaster. Please mark with a check (/) the corresponding column for your response.

Questions	YES	NO
1. Does your family or household have a disaster preparedness plan?		
2. Are all your family members aware of your disaster emergency plan?		
3. Do you review your disaster preparedness plan at least every six months or before and after a disaster?		
4. Does your family practice activities in the disaster preparedness plan by conducting drills or exercises?		
5. Do you know the credible sources of timely storm warnings?		
6. Do you know which agencies provide disaster preparedness information?		
7. Do you have emergency numbers to call in case of emergency?		
8. Do you conduct safety house inspections in preparation for a typhoon?		
9. Have you reinforced your house, in preparation for a typhoon?		
10. Have you identified evacuation centers in your community in the event of typhoons and flooding?		
11. Do you have a ready emergency kit?		
12. Do you examine the contents of your emergency kit?		
13. Is your emergency kit placed where it can be easily accessed?		
14. Do you have emergency stock such as water and canned goods when a typhoon disaster strikes?		
15. Do you think your stock is enough in the event of a typhoon disaster?		

*** End of Questionnaire***

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume VI, Issue III
February 2025
Available online at https://www.instabrightgazette.com

Appendix C

Focus Group Discussion Guide

I. Engagement

a) Introduction of Participant

b) Presentation of Ground Rules

II. Exploration

a) Question 1 - What are your significant learnings from the experience?

b) Question 2 - Did your awareness about disaster improved after the lessons and activities given? If yes,in what way? If no,why?

c) Question 3 - How about your preparedness before and after the lesson and activities, did it improve or not? Why or why not?

III. Termination

a) Recommendations

b) Acknowledgement of Participants

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume VI, Issue III
February 2025
Available online at https://www.instabrightgazette.com

Appendix D

Informed Consent

I Hazel Grace V. Alvarez, the researcher of this study, are faculty member of Navotas Elementary School. Currently, we are doing a research on Laging Handa: Integrating Disaster Awareness and Preparedness through an Enhanced Self Learning Module. We will extensively explain this research to you, and I am going to invite you to be part of it. I will give you time to decide whether you will participate in the research. You may talk to someone you are comfortable with about research before you decide. If there may be something that you would want to clarify, please do not hesitate to approach, or call us anytime.

If there may be some words that you do not understand, we will oblige to simplify them for you. Please ask me to stop as we go through the information, and we will take time to explain.

Purpose of the research:

This study aims to determine the effectiveness of an enhanced self learning module (SLM) on as intervention in increasing students' level of awareness and disaster preparedness.

Type of Research Intervention:

The research intervention will be in the form of series of practical activities that students will be required to perform. These activities will be named as Laging Handa" activities as it contextualizes the necessary preparations for disaster.

Voluntary Participation:

Your approval of your participation in this research is entirely voluntary. You may change your mind later and stop participating even if you already agreed to participate earlier.

Risk:

There is no imminent risk that will be involved except for accidental leakage of your response. However, this will be prevented by our confidentiality clause stated on the next

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume VI, Issue III
February 2025
Available online at https://www.instabrightgazette.com

section.

Confidentiality:

The information gathered from this research will be kept in strict confidentiality. Only the researchers will have access to the information that will be collected from respondents. An alphanumeric code will be placed on the information you will be given in place of your child's name. Only the researcher will know the code. The data will be stored for a maximum of 5 years. After the aforementioned period, gathered information shall be destroyed or archived by shredding on-site the hard copy data.

Right to Refuse or Withdraw:

You may not have to take part in this research if you do not wish to do so. It is your choice, and all your rights will still be respected.

Benefits of this study:

The results of this study will provide a database for school administrators, teachers, DRRM personnel, students and parents, and researchers, how disaster awareness and preparedness can be integrated and applied both at home and in school.

Who to Contact:

Should you have questions before, during or even after the conduct of this study, you may contact the researchers given their information as follows:

Name: Hazel Grace V. Alvarez

Cellphone number: 09651006449

E-mail address: alvarez.hazelgrace@deped.gov.ph

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume VI, Issue III
February 2025
Available online at https://www.instabrightgazette.com

PART II: Certificate of Consent

I have read the foregoing information, or it has been read to me. I have had the opportunity to ask questions about it and any questions that I have been answered to my satisfaction. I consent voluntarily to participate as a participant in this research.

Print Name of Participant: _____

Signature of Participant: _____

Date : _____

Appendix E

Work Plan and Timeline

Task	Activities	Date:	Desired Outcome
Pre-Implementation	1. Preparation of materials needed: self-learning modules, rubrics, Pretest/Posttest Questions, & letter for approval.	Dec.1 to 16, 2023	Materials are ready and available.
	2. Giving of consent letter to the principal/adviser to conduct the research.	Dec.5, 2023	Approval of the Action Research

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume VI, Issue III
February 2025
Available online at https://www.instabrightgazette.com

	3. Giving of consent letter to the parents/guardians.	Jan.19 to 20, 2024	Approval from the parents/ guardians of the respondents
Implementati on	4. Conducting and recording of scores for Pre-test assessment	Jan.26&27, 2024	Pretest data as baseline of the study
	5. Conducting an intervention	Feb.6 to 13, 2024	Completion of the intervention given.
	6. Conducting and recording of scores for Post-test assessment.	Feb.20&21, 2024	Post test results in comparison with pretest data
	7. Conducting and gathering survey test questions via an FGD regarding experiences and leanings from the action research.	March 3, 2024	Transcription of respondents insights and experiences
Post-Implementati	8. Analysis of report	March 13 t0 24, 2024	Statistical output relevant to the
on			research questions
	9. Preparation of research report	April to May 2024	Action Research Final Report submitted to DepEd (Division Office)

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume VI, Issue III
February 2025
Available online at https://www.instabrightgazette.com

	10. Utilization and Dissemination of Findings		Public presentation of results

Appendix F

Cost Estimates

A. Supplies and Materials

Unit	Quantity	Description	Unit Cost	Amount
Ream	2	A4 –Bondpaper	Php250.00	Php500.00
Piece	4	Fastener	Php2.00	Php8.00
Box	100 pcs.	Staple wire	Php9.00	Php9.00
Piece	1	Stapler	Php105.00	Php105.00
Piece	1	Simcard (any network) with load	Php300.00	Php300.00
Piece	3	Short folder	Php10.00	Php30.00

B. Travel Expenses

Purpose of Travel	Destination	Transportation	Amount
Giving of Survey Test Questionnaire	School – Student's residence	Jeepney	Php 500.00

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume VI, Issue III
February 2025
Available online at https://www.instabrightgazette.com

****

Summary of Expenses

A.	Supplies & Materials	952.00
B.	Travel of Expenses	500.00
	Total	Php 1,452.00

****

****

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume VI, Issue III
February 2025
Available online at https://www.instabrightgazette.com

Appendix G Certificate of Validity

Republic of the Philippines

CERTIFICATE OF VALIDITY

The undersigned hereby validated the research instrument of Hazel Grace V. ALvarez of Navotas Elementary, proponent of the action research paper entitled, "Laging Handa: Integrating Disaster Awareness and Preparedness Utilizing Enhanced Self-Learning Module In Science."

This certification is issued upon the request of_____for whatever purpose that may serve her best.

Issued on _____ at _____

Name and Signature