

Disaster Readiness and Risk Reduction

Quarter 1 – Module 5: Vulnerability



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**Disaster Readiness and Risk Reduction
Alternative Delivery Mode
Quarter 1 – Module 5: Vulnerability
First Edition, 2020**

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Senior High School

DRRR
Quarter 1 – Module 5:
Vulnerability

Introductory Message

For the facilitator:

Welcome to the Disaster Readiness and Risk Reduction 11/12 Alternative Delivery Mode (ADM) Module on Vulnerability!

This module was collaboratively designed, developed, and reviewed by educators both from public and private institutions to assist you, the teacher or facilitator in helping the learners meet the standards set by the K to 12 Curriculum while overcoming their personal, social, and economic constraints in schooling.

This learning resource hopes to engage the learners into guided and independent learning activities at their own pace and time. Furthermore, this also aims to help learners acquire the needed 21st century skills while taking into consideration their needs and circumstances.

In addition to the material in the main text, you will also see this box in the body of the module:



Notes to the Teacher

This contains helpful tips or strategies that will help you in guiding the learners.

As a facilitator, you are expected to orient the learners on how to use this module. You also need to keep track of the learners' progress while allowing them to manage their own learning. Furthermore, you are expected to encourage and assist the learners as they do the tasks included in the module.

For the learner:

Welcome to the Disaster Readiness and Risk Reduction 11/12 Alternative Delivery Mode (ADM) Module on Vulnerability!

The hand is one of the most symbolized parts of the human body. It is often used to depict skill, action and purpose. Through our hands we may learn, create, and accomplish. Hence, the hand in this learning resource signifies that you as a learner is capable and empowered to successfully achieve the relevant competencies and skills at your own pace and time. Your academic success lies in your own hands!

This module was designed to provide you with fun and meaningful opportunities for guided and independent learning at your own pace and time. You will be enabled to process the contents of the learning resource while being an active learner.

This module has the following parts and corresponding icons:



What I Need to Know

This will give you an idea of the skills or competencies you are expected to learn in the module.



What I Know

This part includes an activity that aims to check what you already know about the lesson to take. If you get all the answers correct (100%), you may decide to skip this module.



What's In

This is a brief drill or review to help you link the current lesson with the previous one.



What's New

In this portion, the new lesson will be introduced to you in various ways such as a story, a song, a poem, a problem opener, an activity or a situation.



What is It

This section provides a brief discussion of the lesson. This aims to help you discover and understand new concepts and skills.



What's More

This comprises activities for independent practice to solidify your understanding and skills of the topic. You may check the answers to the exercises using the Answer Key at the end of the module.



What I Have Learned

This includes questions or blank sentence/paragraph to be filled in to process what you learned from the lesson.



What I Can Do

This section provides an activity which will help you transfer your new knowledge or skill into real life situations or concerns.



Assessment

This is a task which aims to evaluate your level of mastery in achieving the learning competency.



Additional Activities

In this portion, another activity will be given to you to enrich your knowledge or skill of the lesson learned. This also tends retention of learned concepts.



Answer Key

This contains answers to all activities in the module.

At the end of this module you will also find:

References

This is a list of all sources used in developing this module.

The following are some reminders in using this module:

1. Use the module with care. Do not put unnecessary mark/s on any part of the module. Use a separate sheet of paper in answering the exercises.
2. Do not forget to answer *What I Know* before moving on to the other activities included in the module.
3. Read the instruction carefully before doing each task.
4. Observe honesty and integrity in doing the tasks and checking your answers.
5. Finish the task at hand before proceeding to the next.
6. Return this module to your teacher/facilitator once you are through with it.

If you encounter any difficulty in answering the tasks in this module, do not hesitate to consult your teacher or facilitator. Always bear in mind that you are not alone.

We hope that through this material, you will experience meaningful learning and gain deep understanding of the relevant competencies. You can do it!



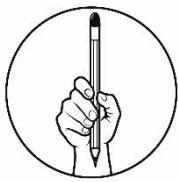
What I Need to Know

In this module, the learner will be able to explain the meaning of vulnerability. Aside from being able to explain the meaning of vulnerability, the learner will also be able to apply the different applications and real-life situations. Knowing the meaning of the word itself will let the learners use their knowledge to handle situations when vulnerability became the primary considerations of the community when it comes to exposure, prevention, mitigation, and recovery from a particular hazard.

The Module is intended to equip you with knowledge and skills in explaining the meaning of Vulnerability.

After going through this module, you are expected to:

1. define vulnerability;
2. determine what makes a community vulnerable or not;
3. assess events situations delicately to identify vulnerability level and coping capacity and ability; and
4. manage personal beliefs through knowing the importance of identifying exposure and vulnerability to disaster.



What I Know

Choose the letter of the best answer. Write the chosen letter on a separate sheet of paper.

1. What are the three phases of disaster management planning for vulnerable community to make it less susceptible?
 - a. planning, evacuating, and recovery
 - b. preparation, response, and recovery
 - c. evacuating, rebuilding, and recovery
 - d. preparation, planning, and perception
2. Risk is a situation where in a community is being exposed to danger. What are the two factors that affect the risk level of a community?
 - a. alert and alarm
 - b. hazards and threats
 - c. hazard and vulnerability
 - d. vulnerability and susceptibility
3. The following are involved in National Disaster Risk Reduction and Management planning EXCEPT _____.
 - a. media
 - b. Catholic church
 - c. national government
 - d. Local Government Units (LGU)
4. Which is NOT a tool provided by the government to protect vulnerable communities?
 - a. Government using research to predict storms and floods.
 - b. Government utilizing computer systems to determine risk levels.
 - c. Government relocating natural disaster victims to more stable areas.
 - d. Government funding Army corps of Engineers projects to build bridges
5. Which of the following can be frequently prevented and anticipated?
 - a. disasters
 - b. natural hazards
 - c. human-made hazard
 - d. socio-economical hazards
6. Which group belongs to the most vulnerable?
 - a. professionals
 - b. indigenous people
 - c. government officials
 - d. small entrepreneurs

7. It refers to the community's ability to reduce vulnerability through prevention, mitigation, response, and recovery.
- disaster
 - hazard
 - resiliency
 - risk
8. It is a set of existing conditions, which badly affect the community's ability to prevent, mitigate, prepare for, and respond to hazardous events.
- disaster
 - disaster risk
 - hazard
 - vulnerability
9. What does the statement "Vulnerability is situation specific" means?
- Vulnerability cannot be determined easily
 - Not all communities are vulnerable to earthquake
 - It means that vulnerability depends in every individual
 - Vulnerability of a certain community depends on the level of preparedness
10. The following are ways on how to develop resiliency EXCEPT _____.
- ability to identify the hazards
 - ability to escape a specific event
 - ability to respond immediately after the disaster
 - ability to prepare all the time for the possible outcome
11. Complete the sentence. High vulnerability level and high hazard status are associated with _____.
- low disaster risk
 - high disaster risk
 - medium disaster risk
 - none of the above
12. Which of the following groups of people are more vulnerable to disasters?
- men, women, boys
 - men, boys, old people
 - women, children, old people
 - none of the above

13. The following factors can help lessen the vulnerability of a community EXCEPT _____.
- a. preparedness of the community
 - b. presence of Disaster Risk Reduction Management Team
 - c. availability of health services and facilities in times of calamity
 - d. provisions of housing on areas that have fault lines in the vicinity
14. Which statement best describes vulnerability?
- a. Vulnerability can cause the loss of life or injury, property damage.
 - b. Vulnerability is a potentially damaging physical event, phenomenon, or human activity .
 - c. Vulnerability can generate social and economic disruption or environmental degradation .
 - d. Vulnerability is the susceptibility of an individual or a group of people on the impact of natural hazard.
15. Why do you think the total number of deaths attributable to natural hazards has risen overall?
- a. because less people lived in less vulnerable areas
 - b. because events are better documented today than in the past
 - c. because the magnitudes of natural hazard events are increasing
 - d. because human population are increasing in areas that are vulnerable

Lesson 1

Explain the meaning of Vulnerability

Vulnerability can determine the ability of a person or a group to predict, cope with, resist and recover from the effects of a natural or human-induced threat. As vulnerability increases, it means that the population is at greater risk of suffering from a severe natural danger.



What's In

Direction: Spot the hazard. Write your answer on a separate sheet of paper.

Figure A



Figure B



Left: "DSCF0856" by gvlx, licensed under CC BY-NC-SA 2.0;

Right: "Unsafe construction in Macau" by Azchael, licensed under CC BY 2.0

1. Examine Figures A and B. Identify all the hazards that you can see.

Figure A	Figure B

2. Give at least three (3) potential scenarios from each picture that can occur due to the presence of hazard?



Notes to the Teacher

There are several possible answers. Consider answers that are relevant to the questions and could have been a possible answer but not included in the answer key.



What's New

Inspection Time!!

Direction: Since being safe and protected is the number one **GOAL** of every family, let us conduct an ocular inspection of your house and backyard to ensure your family's safety against hazards and disasters.

Follow the steps below:

1. Tour around your house including the backyard and assess if there is/ are hazards observed in your house.
2. As much as possible, make a list of all the hazards that you will be observed.
3. Using all the hazards that you listed, determine what could be the possible events that may put you and your family at risks.
4. Who among the family members are prone or susceptible to the listed hazards?
5. Identify the reasons why that member of that family is vulnerable.

Hazards	Possible events	Susceptible family member/s (Exposure)	Reason of Vulnerability

Guide Questions:

1. Based on your assessment from the tour that you made, how will you define vulnerability in your own words?

2. After knowing the hazards in your house, what is your plan of action to avoid harm?
-
-



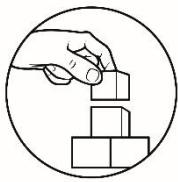
What is It

Vulnerability Defined

Vulnerability is a state of being at risk. According to Republic Act 10121 also known as 'Philippine Disaster Risk Reduction and Management Act of 2010', vulnerability is defined as the characteristics and circumstances of a community, system or resource that make it susceptible to the damaging effects of a hazard. With all the identified hazard at home, there is a possibility that some family members might be susceptible or prone to the accident due to the presence of hazard.

Vulnerability is also situation specific. This means that if a specific province is prone to earthquake, it does not mean that all localities on that province is vulnerable to it. The vulnerability of different towns or cities or even provinces differ in the way they prepare for the hazard and the amount and type of resources they have in order prevent and manage it. To lessen vulnerability means to make the community prepared and ready for the possible damaging effect of the hazard. This further means that to make the community less vulnerable, it must be resilient. So, to develop resiliency at home, you should first identify the hazards and be prepared all the time for the possible outcome and respond immediately.

Moreover, it is also hazard specific. A community that is vulnerable to earthquake hazard does not necessarily mean that it is also vulnerable to typhoons. Hazards have different traits that can influence the disasters possible to happen.



What's More

Direction: Read the story below and answer the questions that follow.

Nick and Gary who were neighbors are both students of Looc National High School. Due to the forecasted typhoon the night before, some waited for the announcement of classes suspension. Unfortunately, there was no announcement. Nick decided to go to school bringing his books, notebooks, and laboratory materials. On the other hand, Gary also decided to go to school bringing not only his books, notebooks, and laboratory materials but also flashlight, whistle, and some supplies of food and water. Due to bad weather, the school janitor blocked off the entrances and exits because the grounds were flooded. So, Nick and Gary were stranded in a covered court near the school. Both were trying to call their family, but the signal's down.

1. Who do you think is more vulnerable? Nick or Gary? Why do you think so?

2. In the story presented about Nick and Gary, what were the actions taken by one student that made him less vulnerable to flood? What were the reasons why the other student became more vulnerable?



What I Have Learned

Direction: Based on the story given in “What’s more” activity, answer the following questions briefly.

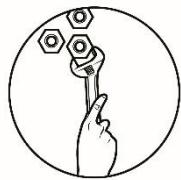
1. If you are going to base your definition of vulnerability on the story given, how will you define it?

2. Based on the story given previously about Nick and Gary, describe what could possibly happen. What have you realized from their story?

3. Could it be possible that both students are exposed to the same hazard, but they can have different level of vulnerability? Explain how.

4. Based from the story, is vulnerability situation specific or hazard specific? Explain.

5. Cite your realization/s about the importance of knowing one's capability, strength, and exposure to hazards.



What I Can Do

Direction: Consider your answer in the activity “What’s New” to answer the following questions. Write your answers on a separate sheet of paper.

1. If you are going to consider all the hazards that you identified in the activity, do you think your place can be considered safe or not? If yes explain why. If not, what else could be done to make your place less vulnerable?

2. With all the hazards that you have identified, who do you think among your family members will be most affected? Explain your answer.

3. As a family, do you think all members have same level of vulnerability in the hazards present in your house?

4. Give at least three factors that can affect the vulnerability of your family and your residence.



Assessment

Choose the letter of the best answer. Write the chosen letter on a separate sheet of paper.

1. A community with high level of vulnerability and high hazard has ____.
 - a. high disaster risk
 - b. low disaster risk
 - c. medium disaster risk
 - d. none of the above

2. Which of the following groups of people is more vulnerable to disasters?
 - a. men, boys, old people
 - b. men, women, boys
 - c. women, children, old people
 - d. none of the above

3. Which of the following factors does not help lessen the vulnerability of a community?
 - a. preparedness of the community
 - b. presence of Disaster Risk Reduction Management Team
 - c. availability of health services and facilities in times of calamity
 - d. provisions of housing on areas that have fault lines in the vicinity

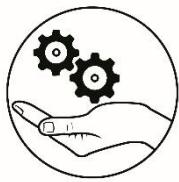
4. Which statement best describes vulnerability?
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 - b. Vulnerability is potentially damaging physical event, phenomenon, or human activity.
 - c. Vulnerability can generate social and economic disruption or environmental degradation.
 - d. Vulnerability is the susceptibility of an individual or a group of people on the impact of natural hazard.

5. What is the main reason why there has been an overall increase in the number of deaths related to natural hazards?
 - a. Less people lived in less vulnerable areas
 - b. Events are better documented today than in the past
 - c. The magnitudes of natural hazard events are increasing
 - d. Human population are increasing in areas that are vulnerable

6. Which group belongs to the most vulnerable?
 - a. professionals
 - b. indigenous people
 - c. government officials
 - d. small entrepreneurs

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 - b. disaster
 - c. resiliency
 - d. risk
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- a. disaster
 - b. disaster risk
 - c. hazard
 - d. vulnerability
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 - b. not all communities are vulnerable to earthquake
 - c. it means that vulnerability depends in every individual
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10. The following are characteristics of a resilient community except_____.
- a. ability to identify the hazards
 - b. ability to escape a specific event
 - c. ability to respond immediately after the disaster
 - d. ability to prepare all the time for the possible outcome
11. What are the three phases of disaster management planning for vulnerable community to make it less susceptible?
- a. planning, evacuating, and recovery
 - b. preparation, response, and recovery
 - c. evacuating, rebuilding, and recovery
 - d. preparation, planning, and perception
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- a. alert and alarm
 - b. hazard and threat
 - c. hazard and vulnerability
 - d. vulnerability and susceptibility

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- media
 - Catholic church
 - national government
 - local Government Units
14. Which is NOT a tool provided by the government to protect vulnerable communities?
- utilizing computer systems to determine risk levels
 - using research and studies to predict storms and floods
 - relocating natural disaster victims to more stable areas
 - congress funding Army corps of Engineers projects to build bridges
15. Which can frequently be prevented and anticipated?
- disasters
 - natural hazards
 - socio-economical
 - human-made hazard



Additional Activities

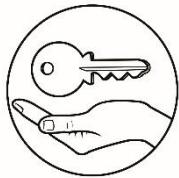
Direction: Write at least 300 words essay to describe the poster below. How can you relate this to vulnerability? Refer to the rubrics for scoring in the next page.



Rubrics for word essay

	4	3	2	1
Understanding of literature/ texts	writing shows unusual insight understanding	writing shows strong, clear understanding	writing shows adequate understanding but may be too general or superficial	writing shows little or no understanding of text
Word Choice	fresh/vigorous; contributes to "voice" — very limited use of 1 st and 2 nd person & "to be" verbs	vivid/interesting; attempt to establish "voice" — limited use of 1 st and 2 nd person & "to be" verbs	appropriate but not specific or vivid; weak "voice" — weak attempt to limit use of 1 st and 2 nd person & "to be" verbs	simple/vague; appears to lack "voice" — excessive use of 1 st and 2 nd person & "to be" verbs
Sentence Structure	correct/varied	correct, but lacks variety	sometimes incorrect & lacks variety	frequent errors & lacks variety
Transitional Devices	smooth & effective; marked on draft	somewhat smooth & generally effective; most marked on draft	many not smooth & some errors in usage; many not marked on draft	not used &/or frequent errors in usage; many not marked on draft
Language Mechanics	very few (if any) errors; very well proofread	few errors; generally well proofread	several errors; requires additional proofreading	numerous errors; appears not to have been proofread

Taga Deped ThemeXpose, “RUBRIC ASSESSMENT TOOL FOR ESSAY WRITING”,
 DepEd Tambayan, May 01,2019,
https://drive.google.com/file/d/1RHSkR2W8lr0t98jBwyJ7FEZlZEDk_b0v/view



Answer Key

What I Know		Assessment		Lesson 1	
1. B		2. C		1. Nick	2. Vulnerability is being not able to prepare for the impenetrable or hazardous dangers.
3. B		3. D		5. A	6. B
4. D		4. D		7. C	8. D
5. D		5. D		9. D	10. B
6. C		6. B		11. B	12. C
7. C		7. C		13. D	14. D
8. D		8. D		15. D	15. D
9. D		9. D			
10. B		10. B			
11. B		11. B			
12. C		12. C			
13. B		13. B			
14. D		14. D			
15. D		15. D			

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