Disaster in the time of K to 12:  
Embedding the Disaster Preparedness in the K to 12 Curriculum

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The revamping of the education system of the country has brought in new faces in the curriculum, one of them the SHS Core: Disaster Readiness and Risk Reduction. This new subject specifically aims to focus “on the application of scientific knowledge and the solution of practical problems in a physical environment. It is designed to bridge the gap between theoretical science and daily living”. This subject is designed to be taken by all senior high school students starting 2016 and categorized within the physical sciences (STEM strand).

Using the human development index and indicators of social impacts (i.e., social capital, social cohesion, collective action, etc.) as analysis tools, this discussion will review the curriculum in terms of its capacity to educate and prepare Filipino students for the social aspect of the causes and impacts of disaster to society.

Keywords: K to 12, disaster preparedness, social impacts of disaster

Biography of presenter
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Background

Republic Act No. 10533, an act purporting to enhance the Philippine basic education by “strengthening the curriculum and increasing the number of years for basic education”. The same law seeks to empower Philippine High School graduates “through a program that is rooted on sound educational principles and geared towards excellence, the foundations for learning throughout life, the competence to engage in work and be productive, the ability to coexist in fruitful harmony with local and global communities, the capability to engage in autonomous, creative, and critical thinking, and the capacity and willingness to transform others and one’s self.” (http://www.gov.ph/2013/05/15/republic-act-no-10533/)

This overhauling of the basic education curriculum introduces new set of core subjects in the Senior High School, what is essentially the last 2 years of High School. These Core subjects (17) are taken by all high school students regardless of their chosen future careers. These subjects are as follow:

1. Oral Communication
2. Reading and Writing
3. Komunikasyon at Pananaliksik sa Wika at Kulturang Filipino
4. Pagbasa at Pagsusuri ng Iba’tlbang Teksto Tungo sa Pananaliksik
5. 21st Century Literature from the Philippines and the World
6. Contemporary Philippine Arts from the Regions
7. Media and Information Literacy
8. General Mathematics
9. Statistics and Probability
10. Earth and Life Science
11. Physical Science
12. Introduction to Philosophy of the Human Person / Pambungad sa Pilosopiya ng Tao
13. Physical Education and Health
14. Personal Development / Pansariling Kaunlaran
15. Understanding Culture, Society, and Politics
16. Earth Science (taken instead of Earth and Life Science for those in the STEM Strand)
17. Disaster Readiness and Risk Reduction (taken instead of Physical Science for those in the STEM Strand)

Objectives of the Paper Presentation

The focus of this discussion is to examine the core subject “Disaster Readiness and Risk Reduction” using the human development index and indicators of social impacts (i.e., social capital, social cohesion, collective action, etc.) to evaluate its capacity to educate and prepare Filipino students for the social aspect of the causes and impacts of disaster to society.

Presentation of this curriculum in this fora also provides chance for academic Sociologists and those in the applied social sciences, especially those involved in disaster research, to scrutinized and review its relevance and effectiveness.

The Senior High DRR Curriculum

Come 2016, schools around the country who have assured their capability and capacity to add two years into their curriculum to absorb students in their 11th and 12th year will adapt the standard curriculum guide provided by DepEd. These curriculum guides act as minimum standards, schools may add to the content standards but may not reduce.

Figure 2 Curriculum Guide for Disaster Readiness and Risk Reduction
One such core curriculum subject is the SHS Core Disaster Readiness and Risk Reduction which “focuses on the application of scientific knowledge and the solution of practical problems in a physical environment. It is designed to bridge the gap between theoretical science and daily living.”

The following are the exit competencies required of those who have duly completed this course:

1. The learners relate the concept of disaster with daily life.
   a. Explain the meaning of disaster;
   b. Differentiate the risk factors underlying disasters;
   c. Describe the effects of disasters on one’s life;
   d. Explain how and when an event becomes a disaster;
   e. Identify areas/locations exposed to hazards that may lead to disasters; and
   f. Analyze disaster from the different perspectives (physical, psychological, socio-cultural, economic, political, and biological).

2. The learners conduct hazard hunts of exposed elements and propose corresponding corrective actions for one’s preparedness.
   a. Enumerate elements exposed to hazards;
   b. Explain the meaning of vulnerability;
   c. Explain why certain sectors of society are more vulnerable to disaster than others;
   d. Analyze why certain structures are more vulnerable to specific hazards than others;
   e. Determine the elements that are exposed to a particular hazard;
   f. Recognize vulnerabilities of different elements exposed to specific hazards; and
   g. Differentiate among hazards, exposure, and vulnerabilities and give examples from actual situations.

3. The learners relate various types of hazard with a specific area for one’s preparedness.
   a. Define hazards;
   b. Give examples of the types of hazards; and
   c. Explain the impact of various hazards on different exposed elements.

4. The learners develop a family emergency preparedness plan to guide them on what to do before, during, and after an earthquake.
   a. Identify various potential earthquake hazards;
   b. Recognize the natural signs of an impending tsunami;
   c. Analyze the effects of the different earthquake hazards;
   d. Interpret different earthquake hazard maps; and
   e. Apply precautionary and safety measures before, during, and after an earthquake.
5. The learners develop a family emergency preparedness plan to guide them on what to do before, during, and after a volcanic eruption.
   a. Explain various volcano-related hazards;
   b. Differentiate among different volcano hazards;
   c. Recognize signs of an impending volcanic eruption;
   d. Interpret different volcano hazard maps; and
   e. Apply appropriate measures/interventions before, during, and after a volcanic eruption.

6. The learners develop a family emergency preparedness plan to guide them on what to do before, during, and after the occurrence of events that cause geological hazards.
   a. Discuss the different geological hazards;
   b. Analyze the causes of geological hazards;
   c. Recognize signs of impending geological hazards;
   d. Interpret geological maps; and
   e. Apply mitigation strategies to prevent loss of lives and properties.

7. The learners develop a family emergency preparedness plan to guide them on what to do before, during, and after the occurrence of events that cause hydrometeorological hazards.
   a. Distinguish and differentiate among and between different hydrometeorological hazards;
   b. Recognize signs of impending hydrometeorological hazards

8. The learners develop proficiency in executing emergency response plans through safety drills.
   a. Apply appropriate measures/interventions before, during, and after hydrometeorological hazards;
   b. Interpret different hydrometeorological hazard maps; and
   c. Use available tools for monitoring hydro-meteorological hazards.

9. The learners are able to develop a community emergency preparedness plan and community disaster preparedness plan to minimize vulnerability and disaster risk in the community and avoid or limit adverse impacts of hazards.
   a. Discuss the key concepts, principles, and elements of DRR;
   b. Recognize the importance of DRR on one’s life;

10. The learners practice and develop proficiency in executing emergency response protocols/procedures through safety drills.
    a. Discuss different community-based practices for managing disaster risk to specific hazards;
    b. Develop a community preparedness plan; and
c. Prepare survival kits and materials for one’s family and for public information and advocacy.

11. The learners are able to develop a community disaster preparedness plan to minimize vulnerability and disaster risk in the community and avoid or limit adverse impacts of hazards.
   a. Explain DRR-related laws and policies;
   b. Avail of existing DRR-related services programs and projects; and
   c. Abide by public policies on DRRM

Features of the DRR Subject (Summary)
Initially, the curriculum offers a glimpse of the social exclusion aspects of disasters (Explain why certain sectors of society are more vulnerable to disaster than others, Analyze disaster from the different perspectives: physical, psychological, socio-cultural, economic, political, and biological). Other than that, the curriculum essentially focuses on ensuring the preparedness of students to the physical impacts of natural disasters namely earthquake, volcanic eruptions, extreme weather and meteorological events. One form of disaster that seems to be missing is armed conflict. Armed conflict, while a slow-moving disaster has essentially the same consequences as natural disasters: dead casualties, damage to properties and general societal disruption.

In terms of impacts of disasters based on indicators and components of HDI, at best the curriculum aims to prepare students to evade death through emergency drills though it has tendency to fail students for the long-run consequences societal impacts: education, household income and health.

Disaster risk reduction should be systematically treated across the curriculum and through the grade levels. The treatment must extend beyond the basic science of hazards and safety measures to consider prevention, mitigation, vulnerability and resilience building. (Kagawa & Selby, 2012)

Disasters and its Social Impacts

Assessment of the impact on the community of natural disasters is important for three reasons: (1) the information is useful to community leaders after a disaster strikes so they can determine if there is a need for external assistance and, if so, how much, (2) information about disaster impacts can be used to identify specific segments of the community that have been affected disproportionately or might be affected in the future. and (3) planners can develop disaster impact
projections before disasters strike to assess potential consequences of alternative hazard adjustments. Social impacts, which include psychosocial, socio-demographic, socioeconomic, and socio-political impacts, can develop over a long period of time and can be difficult to assess when they occur.

Social impacts are difficult to measure but if not monitored can cause significant problems in the long run for households and businesses affected by the disaster. A better understanding of disasters’ social impacts provide a basis for pre-impact prediction and the development of contingency plans to prevent adverse consequences from occurring. (Lindell and Prater, 20013)

**DRR in the SHS Curriculum**

The inclusion of DRR in the SHS curriculum is an indication that the country’s education system recognizes the significance of classroom instruction in disaster preparedness and mitigation and is moving towards a more mainstream approach of DRR. Children are more vulnerable to disasters but at the same time they can be influential and effective source of information on disasters, especially in rural areas where children often have higher level of schooling than their parents. Students are able to transmit up to date and practical DRR lessons to their homes.

There are many other documented occasions when the safety of a family, or the protection of an important element of the household, have been traced back to a “safety lesson” learned at school. Introducing disaster awareness and risk reduction education in the school curriculum would foster better understanding amongst the children and the teachers about the immediate environment in which they and their families live and would help to reduce the risk faced by the community. (RCC, 2007)

The current mode of DRR integration centralized competency-based or “mainstreaming DRR” whereby identified carrier subjects for each year level integrate core DRR massage, concepts, knowledge, competencies and skills. This approach may seem as a “quick-fix” because while in place, schools have the tendency to just comply.

By imposing an independently taught DRR subject in the senior high school curriculum, school authorities are now more responsive to the need to teach both theory and practice of DRR. A UNESCO/UNICEF report classifies this as “centrally developed special subject (dedicated space” or a stand-alone subject is dedicated to DRR learning within the formal curriculum. (Kagawa & Selby, 2012)
Challenge of Sociologists in the Academe

In the past, Sociologists had been confined to teaching sociological perspectives and social issues in the tertiary level. The instruction of socially relevant topics to high school students are left to Social Studies teachers. As social scientists, especially those in the academe, there is still a need to take a more active role in inserting ourselves in the DRR conversation of the HS level. Practical Sociological concepts should not have to be confined to the tertiary level. The Social sciences has much to offer in insights on how to better prepare before and in the aftermath of a disaster.

References


*Integrating Disaster Risk Reduction in School Curriculum: Mainstreaming Disaster Risk Reduction into Education. (2007) Regional Consultative Committee (RCC)*