

# **DEVELOPMENT OF E-CONTENT FOR AWARENESS ABOUT DISASTER MANAGEMENT AMONG SECONDARY SCHOOL STUDENTS**

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## **1) Introduction**

The term 'disaster' meaning 'bad star' in Latin, is defined as an impact of a natural or manmade hazard that causes human suffering or creates human needs that the victims cannot alleviate without assistance. The word root is from astrology and implies that when the stars are in a bad position, a bad event is about to happen.

The National Policy on Education 1986 has envisaged protection of the environment as all core element of education at all levels. It should be developed as one value among the children. The policy has also recommended the creation of environmental consciousness among all ages starting with school education, NCERT developed environmental concepts in the curriculum at all level of education with the objectives of Awareness, knowledge skill, attitude, participation.

Good environment education, like any good education must lead students out and on from their immediate perceptions and experience to a wider understanding. It must develop their capacity. Pupils must first learn about natural phenomena in order to understand complex environmental matters. The importance of environmental education is that it sensitizes us to the causes and effects of problems, of which for long we have been only dimly aware. The environment involves our children's future and many already know that we must encourage them to think positively about it. In our country too, people conscious of the future survival of the society initiated number of activities to highlight the importance of ecological balance for the sustainable development of the human race.

Syllabi are developed for awareness of disaster management but we are so serious about management of such hazards. Common man and students should first know that how and why these hazards appear, but can we face these hazards. Hazards happens without prior intimation and we lost millions energy and resources as well as we have to face physical and environmental problems hence researcher has taken the following problem for his research work.

This study aims to develop awareness about disaster management hence its major findings are useful not only for secondary school children, but to society also. Due to this study, e-media source will be made available while teaching and learning concepts related to environment and disaster management. There will be positive attitude for having awareness of disaster management. Awareness can help to save life of all living things. Through e-content we can develop serious attitude towards disaster management. E-media is a audio-visual aids, which is helpful for concentrating and understanding the concepts related to disaster management It also helps students to classify disaster, conclusions of research will be helpful to apply various teaching-learning methods and techniques which understanding disaster and its management.

## **2. Objectives of the Research Study**

The following objectives are decided by researcher for the study.

- 1) To develop e-media for awareness about disaster management.
- 2) To implement developed e-media program for awareness about disaster management.
- 3) To find its effect on awareness development.
- 4) To suggest various innovative methods and programs while teaching disaster management.

## **3. Methodology of Study**

### **a) Research Method**

Researcher used experimental method because researcher wants to find out effect of e-content on awareness about disaster management.

### **b) Sampling**

Researcher selected samples from Maharashtra Vidyalaya, Barshi of IX class students by random sampling method and fifteen teachers also.

**c) Tools**

Researcher used pre-test for students and questionnaire for teachers, researcher developed e-content about disaster management.

**d) Research Design**

Researcher used single group pre-test post-test experimental design.

**4. Development of E-Content:**

**Guidelines for E-Content Development by UGC:**

The e-content development and associated web based learning described here does not seek to replace traditional teaching and learning, but is expected to supplement them.

**The product of e-content should be:**

- a. **Technologically Friendly** so as to be downloaded and used on any computer either independently or in a LAN situation.
- b. **Learner Friendly** for easy navigation.
- c. **Learner Centric** to be useful in self-instructional mode.
- d. **Teacher Friendly** so as to be used in various teaching-learning methods such as classroom lectures, tutoring to a group, lab session etc.
- e. **Learner Centric Pedagogy** be employed. Specifically the designer of the e-content should pay attention to the teaching model used \_ such as simple information communication, exploratory approach, discovery approach, mastery learning etc. Many types of interactive should be included to make learning effective and efficient.
- f. **Self-evaluation:** The e-content should use plenty of evaluation material to give feedback to the learner as to his/her achievements

in a topic of course. It should include formative as well as summative evaluation.

- g. **Object Based Learning/Teaching:** The content should specifically state the objects of learning/teaching and should employ different strategies for skill, competency and functionality developments.

- **E-Content Module & Content Duration**

Content duration has been estimated on the basis of the number of hours that are required to transact the content in the classroom. For example, a course in the classroom requires one credit and a credit is equivalent to 15 hours. The content of a course will be taken as 15 hours classroom teaching. On an average, UG students have to take 6 to 8 papers in an academic year. Therefore, during the study period of 3 years a student may take 18 - 24 papers.

Each paper requires 20 - 25 lessons. Presuming that a lesson will take three hours of teaching, 60 to 75 hours will be required to complete one paper. Two and a half hours of classroom lecture is normally covered by an e-content Module of minute's duration. So, on an average, 300 Modules are required for completion of the full course. Similarly, duration of Video programmes produced by the Programme Developer concerning each module shall be about 30 minutes.

Production of 'Learning object Repository' (LoR) related to the modules also produced by the Programme Developer and for use in PC and internet shall be of 1-2 minutes of duration.

- **Content Development & Subject Experts**

The syllabus proposed for creation of e-Content shall be as per UGC Model Curricula for Undergraduate level courses. However, the Course Coordinator in consultation with the Subject Experts is expected to incorporate the latest developments that have taken place in that particular subject. The intention here is to provide scope for value added information on the subject.

With the help of these guidelines researcher has developed E-Content of 'Disaster Management' for Ninth Standard.

• **E-CONTENT DEVELOPMENT BY RESEARCHER:**

**Step 1:** Selection of Topic. (Disaster Management for STD IX.)

**Step 2:** Development of Modules.

**Step 3:** Topic Wise Presentation preparation and Use of readymade videos.

**Step 4:** Topic wise Flash video conversion.

**Step 5:** Experts Guidance and Final preparation of E-Content.

**Step 6:** Actual presentation of E-Content in the classroom.

**5. Interpretation**

a) **The following table shows Mean and SD of pre and post-test.**

	<b>Mean</b>	<b>SD</b>
<b>Pre-test</b>	27.16	4.08
<b>Post-test</b>	29.16	3.66
<b>N</b>	60	60

Above table shows mean difference as 2.00 and standard deviation of post-test was 3.66 i.e. each score is deviated less from mean compare to pre-test.

b) **The conclusions from Teachers Questionnaire are as follows.**

- 1) Teachers were having 13 years experience of teaching environmental education.
- 2) Most teachers were using graphs and charts of drawing while teaching environmental concepts.
- 3) Teachers were not trained about use of ICT.
- 4) Teachers were using internet sometimes.
- 5) Teachers were not aware about development of E-content with the help of E-media.
- 6) Teachers used lecture method while teaching about Disaster Management.

- 7) Teachers were not trained about awareness of Disaster Management.
- 8) Teachers used photographs of news papers and some video clips to give opportunity of observing Disaster to students.
- 9) Computer and internet facility is available in schools.
- 10) Teachers were not using internet facility for taking reference for Disaster Management.

## **6. Conclusions**

- 1) Development of E-content was useful for developing awareness about Disaster Management.
- 2) Teachers are not trained for development of E-content about Disaster Management
- 3) E-content was developed and its CD is attached with this report.

## **7. Recommendations**

- 1) Teachers should be trained for E-content development.
- 2) Students should be motivated to know about various hazards and disasters.
- 3) Government should renewed curriculum with content of Disaster Management.
- 4) Students should be aware about social responsibilities.
- 5) Teachers and students should conduct project about Disaster Management.
- 6) Every citizen should know about Disaster Management, preparedness, mitigation etc.
- 7) Teachers and students should also know about various institutes of Disaster Management and their functions.
- 8) Government should introduce various types of disaster in syllabus of secondary education, higher education.
- 9) The key actions for developing a culture of prevention are...
  - a. Awareness raising
  - b. Societal arrangements
  - c. Accountability forging
  - d. Empowerment

- 10) Implementation of training and educational programs to build knowledge, educate civil society and policy makers and develop local and global capacity.
- 11) Teachers and students should be trained for Disaster Assessment, Disaster Preparedness, Disaster Response and Relief, Disaster Mitigation.

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