

CURRENT SITUATION OF THE EDUCATIONAL PROJECT ON DISASTER PREVENTION IN TAIWAN

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ABSTRACT:

The Taiwan government has invested much effort in developing and promoting disaster relief and prevention by following out many research projects after the 1999 Chichi earthquake. "Experiment and Development Project on Implementation and Introspection of Disaster Prevention Education" is one of the most important among these projects. This project includes five major areas such as, 1) "operation and supporting mechanism build-up"; 2) "curriculum development and popularization experiment"; 3) "teachers' training programs on disaster prevention education"; 4) "promotion and popularization of experiment and e-learning"; and 5) "establishment of evaluation system". Furthermore, The Ministry of Education has promoted actively for the participation of local government since 2007. Depending upon the requirements and characteristics of different areas, different projects are set up and some involved the teachers and students senior high schools and event under to participate.

Through this project, most primary and secondary schools in Taiwan have participated the evacuation training during the large earthquake in the campus and have developed the disaster prevention project for their selves. These implementations are still of the early stage, most of the schools still lack experience and need to be more relevant for disaster prevention and relief exercises. In the future more executive powers and supports from the Ministry of Education and from the local government works will largely help the schools and general public at all levels to reduce the occurrence of disaster events on campus.

1. INTRODUCTION

As a matter of fact natural, disaster events are unavoidable and unpredictable. However, some measure can be taken to reduce the impact of the disaster. The impact can be reduced by some disaster prevention and management actions like, having knowledge about certain life-saving tools or techniques, that can be used at the time of the event and which might help in controlling the total damage of life and belongings. "Disaster prevention" has added to the concept of disaster management which can be extended as "Disaster prevention and emergency". This idea can be explained as "contingency prediction, disaster prevention, and restoration afterward" (Wey, 1997; National Disasters Prevention And Response Commission, 2000).

"Disaster management" can be defined as the manager and methodology of mitigation, preparedness, response and recovery to be directed against the natural and man-made disasters. Therefore, the concept is not only limited to the preparation beforehand but also set up response mechanism and disposal into the areas (Fig. 1). The main aim of Disaster Prevention Education in Taiwan is to set up secure culture and implanting secure concept in terms of preparing the general people to possible save lives and prevents injuries. The White Paper on Education Disaster Prevention (2004) published by the Ministry of Education indicates four basic ideas clearly which are as list below;

- The concept of prevention is much important than treatment
- Set disaster prevention education to sustainable development state
- Set up an actively secure culture
- Towards to a non-disaster state

Therefore, Ministry of Education raised firstly the project of "Survey of disaster prevention literacy of students and teachers of primary and junior high school" to do the investigation from the basic ideas mention above. And then, carried out this project, "Experiment and Development Project on Implementation and Introspection of Disaster Prevention Education", to promote in reality.



Figure.1 Conception of disaster prevention projects

2. PROGRAM CONTENT

Since Taiwan is located at the junction point of the Eurasian plate and the Philippine Sea plate, as a result of which it experiences frequent natural disaster like earthquake, typhoon, landslide, etc. The frequent occurrences of natural disasters often result to serious damage and loss of live and properties. Therefore, the Taiwan government has come up with some disaster prevention projects which can help to reduce the impact caused by the disaster. “Experiment and Development Project on Implementation and Introspection of Disaster Prevention Education” is one of the most important among these projects. This project includes five major areas such as, 1) “operation and supporting mechanism build-up”; 2) “curriculum development and popularization experiment”; 3) “teachers’ training programs on disaster prevention education”; 4) “promotion and popularization of experiment and e-learning”; and 5) “establishment of evaluation system”. The main point and contents of work about the project are listed in the Table 1. This project can be further extended as –the establishment of disaster prevention education service group, establishment and revision of disaster prevention education operation mechanism, establishment of learning platform and operation maintenance of disaster prevention education, manufacture of digital learning material of disaster prevention education, the editing and revision of disaster prevention material, the editing and revision of disaster prevention material, teaching modules of localized disaster prevention, teacher training on localized disaster prevention education, editing of disaster prevention plan in campus, creative competition and campaign on disaster prevention education, other items to promote disaster prevention education, and disaster literacy test and effectiveness evaluation for teachers and students (Tab.1). As mention earlier, the Taiwan Ministry of Education has promoted actively for the participation of local government since 2007. According to the characteristics of different areas, separate projects have been set up and ask for the members of under senior high schools to participate.

Table.1 Working Plan Table

Main Points of Program	Content of Work Program
operation and supporting mechanism build-up	establishment of disaster prevention education service group
	establishment and revision of disaster prevention education operation mechanism
curriculum development and popularization experiment	establishment of learning platform and operation maintenance of disaster prevention education
	manufacture of digital learning material of disaster prevention education
	the editing and revision of disaster prevention material
	teaching modules of localized disaster prevention
teachers’ training programs on disaster prevention education	teacher training on localized disaster prevention education
promotion and popularization of experiment and e-learning	editing of disaster prevention plan in campus

	creative competition and campaign on disaster prevention education
	other items to promote disaster prevention education
establishment of evaluation system	disaster literacy test and effectiveness evaluation for teachers and students

3. PROGRAM RESULTS

“Experiment and Development Project on Implementation and Introspection of Disaster Prevention Education” is based on the result of the project “Survey of disaster prevention literacy of students and teachers of primary and junior high school”. The specific research results are as given below (Kuo et al., 2007; Lee et al., 2008-2010);

3.1 The operation and supporting mechanism build-up

Refers to the promotion of disaster prevention education services and mechanisms to revised “Setting guidelines for educational services group of disaster prevention” and “Disaster prevention and education guidance handbook”, to review the operation of the service mechanism, group counseling, and conducted briefings. Through the concept of service groups schools at all levels can understand and implement the mitigation, preparedness, response, recovery for anti disaster relief work. With a view to disasters can help peoples to reduce the hazards of the school campus and students, family, social, national impact.

3.2 Curriculum development and popularization experiment

The disaster education materials was successfully completed during the year 2004 – 2009 for elementary school, high schools and university, in accordance with the domestic institutions of the compatibility of the current year teaching editing, develop enhancement to promote the model, such as strengthening institutions for disaster prevention through some courses in awareness and promotion.

3.3 Teachers’ training programs on disaster prevention education

The Teachers’ training is the most important part of disaster prevention education. Through appropriate teacher training process the citizen can be made aware of the common disaster context and conditions like, understanding the background and situation of disaster, how to respond when disaster strikes, how effective post-disaster rehabilitation or how significantly one can enhance the overall losses and minimize the damage. The working points include: (1) the in-service and pre-service teacher training courses setting up; (2) Strengthening of the effectiveness of teachers of different levels, from central, county to city level by in-situ training; and (3) Evaluation of the integrated results of teacher training.

3.4 Promotion and popularization of experiment and e-learning

About 159 high schools and junior high schools, from 17 counties in Taiwan, were involved in the total project execution, to strengthen disaster prevention and action to promote the

museum, to strengthen disaster prevention education maintenance and operating digital learning platforms and components, software development and review the mechanism of this“Experiment and Development Project on Implementation and Introspection of Disaster Prevention Education”. In addition, the active participation of local governments to complete the dozens of goals like, preventing teaching module, school disaster response plan and providing education e-learning material and also going through the local disaster prevention education, teacher training courses and other project will help to promote disaster prevention education

3.5 Establishment of evaluation system

The promotion of the experiments depends strongly on the past effectiveness to establish assessment methods and tools, while the future will continue to promote the act of accomplishing the support system. To continue promoting the effectiveness of broad scope, works in the near future include: 1) assisting in literacy and literacy testing indicators content of the view, 2) literacy test for national disaster prevention, and (3) evaluation the mechanism of prevention education, trial and review.

4. CONCLUSION

After the experience from this project, it is found that the current teaching materials in terms of the quality and quantity of performances have increased gradually. Whereas for the practical point of view, it emphasizes the importance of a more lively and more adaptive diversification in case of teaching materials. The concepts and skills in disaster prevention and mitigation are deeply rooted to the general public and school students to learn in life. The prevention materials must better meet the needs of teachers and the students to improve the application level. Through this“Experiment and Development Project on Implementation and Introspection of Disaster Prevention Education”, most primary and secondary schools in Taiwan have participated the evacuation training during the large earthquake in the campus and have developed the disaster prevention project for their selves. These implementations are still of the early stage, most of the schools still lack experience and need to be more relevant for disaster prevention and relief exercises. In the future more executive powers and supports from the Ministry of Education and from the local government works will largely help the schools and general public at all levels to reduce the occurrence of disaster events on campus.

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