DEVELOPING COMMUNITY DISASTER RESILIENCE THROUGH EDUCATION:

A STUDY ON SK KAMPONG KARANGAN, KUALA KRAI, KELANTAN (STAGE 3: PILOT PROGRAM IMPLEMENTATION)

Faizatul Akmar Abdul Nifa, Chong Khai Lin, Sharima Ruwaida Abbas
Mohd Nasrun Mohd Nawi and Munaizah Omar

Disaster Management Institute,
School of Technology Management & Logistics,
Universiti Utara Malaysia, 06010 Sintok, Kedah, MALAYSIA.

PRESENTATION OUTLINE

- Background of Study
- Aim & Objectives
- Method of Study
- Pilot Stage
- Initial Findings
- Future Work

BACKGROUND OF STUDY

- In December 2014, three states in Malaysia, Pahang, Terengganu and Kelantan received heavy rains which led to a massive flood which was locally termed as the "Yellow Flood".
- The state of Kelantan suffered the biggest impact of this flood, where 8 of 10 territories were inundated, leading to destruction of livelihood of local communities.
- Although massive floods were not a foreign occurrence in Kelantan, the locals admitted to not have expected the severe devastation caused by the 2014 flood. It was the worst flood experienced in 100 years.
- Many schools were shut down for more than 2 weeks due to seas of mud in the buildings and the access roads were destroyed during the flood.

BACKGROUND OF STUDY

- Children who have been taught about the phenomenon of disasters and how to react to those situations have proved to be able to respond promptly and appropriately, thereby warning others and protecting themselves during times of emergencies (Shaw et al, 2015)
- The importance of disaster education at school is increasing because of the following reasons (Shiwaku, 2009; UN/ISDR 2006):
  - children are one of the most vulnerable sections of the society during a disaster;
  - they represent the future;
  - school serves as a community's central location for meetings and group activities;
  - effects of education can be transferred to parents and community

BACKGROUND OF STUDY

- The formulation of an effective disaster education programs should include collaborations with the researchers, local community and school so so that the learning process not only be based on hard facts but also cross-learning through sharing of stories, facts and cultural approaches (Shaw et al, 2015; Petal, 2008; Sharma, 2008).
- Paton (2005) highlighted the need for integrating community development initiatives to increase resilience with disaster education and facilitate self-help capacities within the vulnerable community to reduce the reliance on external response and recovery resources.

GAMES – AN INDISPENSABLE TOOL IN DISASTER EDUCATION

- The attention span is an important consideration in the education of young people. This tendency is for a positive relationship between the distance of attention and the level of teaching of teaching techniques.
- Therefore, games, simulations and games are an effective tool for delivering disaster knowledge to children. However, the importance of details and accuracy of information is not sacrificed for teaching. Children who have the same age can respond differently to the techniques used for their education.
- Therefore, due consideration should be paid to the means of communication used in the dissemination of disaster risk information to young children and must cover a variety of interactive and visual techniques and, as far as possible, including hands-on learning and experience (Wisner, 2006).

AIM OF STUDY

Through collaborative efforts and expertise, this research shall focus on the issues of community resilience and safety and how disaster education in primary schools may benefit the overall community preparedness in Kampung Karangan, in the district of Olak Jeram within the Kuala Krai territory, Kelantan.

OBJECTIVE

- *To explore school community awareness and preparedness toward flood disaster*
- *To explore school community knowledge on disaster risk reduction and knowledge how to reduce risk due to disaster*
- *To identify current initiatives on disaster risk reduction among school children undertaken by the school*
- *To propose a disaster education program that can be applied by the primary school in flood disaster prone area*

This presentation reports Stage 3 of the study – the pre-development stage of Disaster Education Program in SK Kampong Karangan.

METHOD OF STUDY

Stage 1: Literature study of disaster education program in schools.

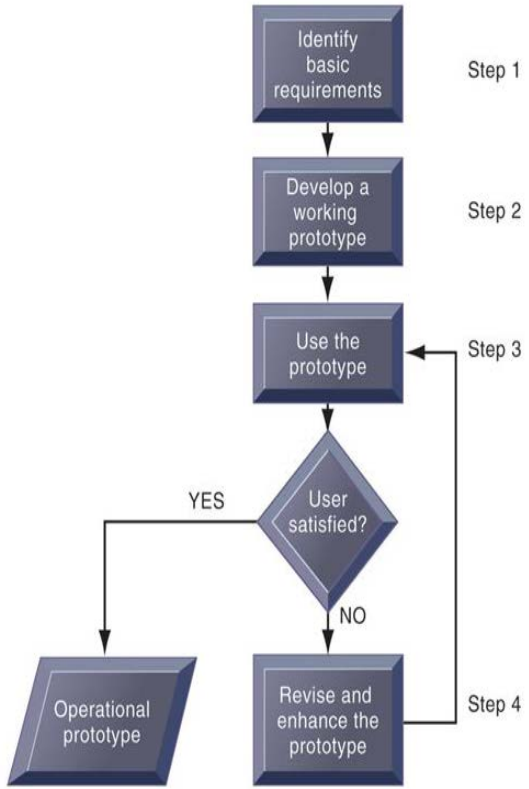
Stage 2: Fieldwork – Semi Structured Interview with School administrators, students, community leaders.

Stage 3: Fieldwork – Pilot Disaster Education Program implementation.

Stage 4: Integration of data and revisions to the Disaster Education Program – ready for periodic future implementation

STAGE 3 – BOARD GAME DEVELOPMENT

- This stage involves the development of the game prototype. Development of a prototype also requires choosing a suitable methodology.
- The prototyping process consists of four step model which is adapted from Laudon (2000).
- In this study prototyping process involves four steps, where the first step is identify basic requirement, step two develop initial prototype, step three use the prototype step four evaluate as operational prototype or revise and enhance the prototype.



PILOT STAGE – BOARD GAME TESTING

FINDINGS – PILOT STAGE

- Only 35% of the students got the information on disaster from their teachers – this is because disaster education is not included in the National Curriculum for Primary Schools.
- Television & Newspaper are their main source of information when it comes to disasters.
- Students feel that loss of property is the biggest effect of disaster while loss of human life is considered minimal when it comes to flood disaster.

FINDINGS – PILOT STAGE

- While the students feel that the game is interesting and has simple rules, they feel that the questions part of this game is very challenging - this could be due to their lack of technical knowledge in disaster preparedness.
- The game was tested for Year 3 and Year 4 students. It was apparent that the Year 4 student thoroughly enjoyed the game more and understood the questions - Kelantan locals spoke a slightly different dialect compared to the rest of Malaysia and this may cause some misunderstanding of terminologies for younger students.
- 90% of the students feel that the board game is very useful to add their knowledge in disaster preparedness, look forward to play the game again and are happy with the design aspects of the game.

FUTURE WORK

- An improved version of the board game will be developed by making revisions in the following aspects;
  - Level of difficulty for questions suitable for Year 3 and 4 students (age 9-10)
  - Linguistics aspects for the regulations & questions – suitable for local understanding.
  - Materials and images (to avoid copyright infringement)
  - Increasing the size of the game – enlarge to be 3m x 3m so students can stand on the mat, taking into consideration of the children's natural characteristics (active, moving, physical activity is preferred)
  - Including the role of the teacher to be the game master, so this could be a class activity to teach disaster preparedness.

THANK YOU FOR YOUR TIME