



Disaster Education Model for Early Childhood

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Abstract

Klaten Regency is one of area in Central Java Province which prone to six kinds of disaster including earthquake, volcano eruption, flood, landslide, fire and hurricanes. The most vulnerable victims of disaster are children. This paper aims to describe the disaster education model for early childhood which applied in a model of playing while learning in the EWS park (Eling/Remember-Waspada/Alert-Siaga/Readiness). It involved government and community, include Regional Agency of Disaster Management (BPBD), Fire Rescue, Search and Rescue Unit, Teachers and Students of Early Childhood. This activity used collaborative participatory approach, which a number of community representatives were involved together in learning and simulating the disaster mitigation. The result of the community service showed that the process of learning activities takes place with a pleasant atmosphere, participants enthusiastically receive any material presented by the instructor. The material consists of flood mitigation, hurricanes, volcanic eruptions and earthquakes. Participants try to practice/simulate using the media provided in EWS Park. Simulations are done in groups and individuals with great enthusiasm.

Keywords: Disaster Education, Early Childhood, EWS Park.

Introduction

Klaten regency is a regency which located in the southern region of Central Java Province. It is vulnerable to several natural disasters, namely tectonic earthquakes, Merapi volcano eruption, hurricane, floods, fire and landslides. Two potential disasters that have been known to the public, even the international community, are the eruption of Mount Merapi and tectonic earthquakes. Both of these natural disasters could attract the attention of the world, because not only the material losses caused, but also casualties when this disaster occurred. Based on several disasters potential, disaster learning based on local disaster is essential. This disaster learning intended to ensure all components of the community were aware that they are living in disaster prone areas, so that awareness is needed to increase readiness and capacity toward disaster risk management.

One of important disaster education is for students, especially early childhood students who have a good memory and tend to imitate what was taught. This becomes the main capital, because with early childhood disaster learning, they will always remember about how to deal with natural disasters until they enter adolescence and adulthood. One of the most effective ways to improve knowledge, understanding and skills is to teach disaster mitigation education in schools from childhood until high school levels. The survey results in Japan showed that people who survived the disaster due to self-efficacy reached 35 percent, saved by families 31, 9 percent, rescued by neighbors 28.6 percent, by SAR team 1.7 percent and others 0.9 percent (BPBD Klaten, 2016).

Method

This community service activity was carried out in "Eling Waspada Siaga (EWS)" Park in Klaten Regency, Central Java Province. Participants involved in this activity were BPBD Klaten, PAUD Gajah Mada Klaten School, Fire Department of Klaten Regency, Rescue Team of Klaten District, PAUD Teachers in Klaten District and PAUD students from several schools in Klaten. A total of 130 participants consisting of faculty member and instructor elements 30 people, and 100 students of PAUD/early childhood. The training activities are divided into three stages. First stage was preparation for preparing learning media and infrastructure for instructors ToT (Training of Trainer) such as making disaster mitigation posters, disaster mitigation books, and preparation of simulation equipment. Second phase performs ToT for instructor on disaster mitigation by using prepared media tools with EWS Park facilities and infrastructure support. Third, disaster mitigation simulation practices involving 100 children from early childhood school (figure 1).

Result and Discussion

The use of learning media in teaching and learning process can generate new desires and interests, generate motivation and stimulate learning activities, and bring psychological influences on students (Hamalik, 1986). The use of instructional media on learning orientation will greatly assist the activity of learning and deliver messages and content of the lesson at that time. In addition, it could generate student motivation and interest, learning media can also help students improve understanding, also present interesting and reliable data.

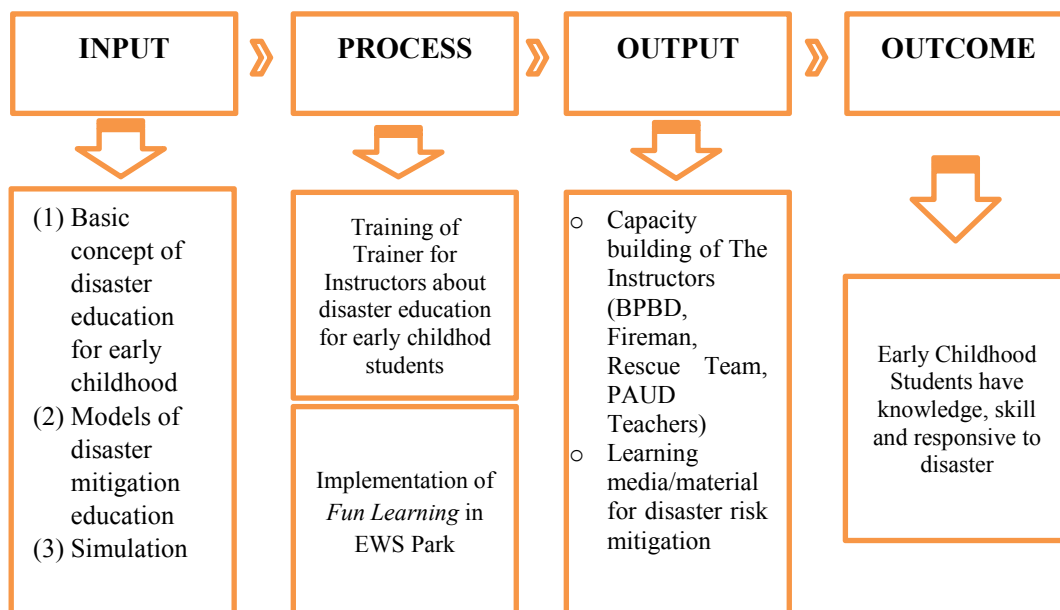


Figure 1. Flowchart of disaster mitigation education model for early childhood

The learning media has the greatest influence for the senses and it could guarantee more understanding. The only listener was not at the same level of understanding and duration of what they understand compared to those who see, or see and listen to it. It further explains the importance of learning media because it brings and generate excites of the students. It also could renew their spirits, helps to consolidate knowledge in the minds of students and bring lessons into life.

The implementation of ToT learning activities in community service at EWS Park Klaten was used by simple supporting media such as posters, teacher manuals, simulation tools (life jackets, plastic buckets, plastic scoops) in addition to a number of simulation tools already available at EWS Park. The media and props used for the implementation of simulations include for flood mitigation, earthquakes, volcano eruptions, hurricanes, and fires (figure 2 and 3).



Figure 2. EWS Park in Klaten Regency (Photo by Juhadi, August 2017)



Figure 3. Disaster Simulation Props for Earthquake and Fire

Training of Trainers Process

The Training of Trainers (ToT) was conducted by involving 5 structures and 25 candidates from various elements, namely staff members of BPBD Klaten, Fire Department (DAMKAR), Rescue Team and PAUD Teachers. All participants follow each kind of disaster mitigation simulation with great enthusiasm. The learning approach applied within the ToT at EWS Park Klaten used adult learning model (Andragogic). The instructor strives to create an intimate and fun atmosphere accompanied by jokes related to the disaster theme. This method could attract the attention of all ToT participants, so that all previously designed ToT programs can be implemented smoothly.



Figure 4. Training of Trainers Process

Disaster Simulation Process

The disaster simulation process was the third stage in disaster learning/education model. The types of disaster which taught through simulation were flood, earthquake, hurricane, volcanic eruption and fire. In this simulation, 25 facilitators divided themselves to provide services/learning for early childhood students which divided in two groups. There were a hundred (100) early childhood students who were present from three regions (Ceper, Cawas, and Prambanan) and ten (10) companion teachers.



Figure 5. Early Childhood Students as Simulation Process

EWS Park is the only park in Indonesia that was designed for disaster learning media. Even though the status of the location is still temporary, it is still in a private land. Thus the EWS Park has not yet been able to be developed and built permanently. But as reported by the chairman of BPBD Klaten that the Regency Government has prepared a new land in lieu of the old EWS Park.



Figure 6. Students Following the Simulation Process

Conclusion

Education on Disaster Prevention and Risk Reduction or more commonly referred as Disaster Risk Reduction (DRR) Education is a long-term and part of sustainable development. Through education, it was expected that disaster risk reduction efforts can achieve broader targets and can be introduced early to all learners, which can ultimately contribute to individual and community preparedness toward disaster. Education on Disaster Prevention and Disaster Risk Reduction should be designed to build a safe culture and a strong community. Hence the emergence of EWS Park in Klaten Regency is a pioneer of smart ideas in supporting and mobilizing disaster education in Indonesia.

References

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