Disaster Awareness through Disaster Preparedness Education for Primary Schools

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Abstract Tanjung Anom District of Mauk is a coastal area in the south of Banten whose location is classified as vulnerable to natural disasters requiring tsunami disaster mitigation efforts from the local community. This does not conform with the reality on the ground. The public has not been aware of the importance of disaster mitigation in the area. Based on data from the local region, the majority of the population is children attending school, but the school in the village of Tanjung Anom, District of Mauk has not received any disaster education program. The majority of young children do not understand what to perform in case of disaster due to the lack of education on disaster mitigation in which it should be a particular concern both for the agency and the government. Based on the importance of improving understanding of the disaster and Disaster Mitigation Education, it is implied that those should be taught to children from an early age. Community service through the action of "Disaster Preparedness Education" was done to the students at SDN Tanjung Anom, amounting to 180 students. The program provided to include the provision of materials relating to the disaster, disaster mitigation, field or simulations as well as to facilitate collaboration among stakeholders to introduce the students in order to be aware and understand about the potential of natural disasters that may occur and the occurrence of natural disasters and obtain the knowledge in relation to the action during Pre-disaster, emergency responses and post-disaster. Disaster preparedness educational materials and a small simulation have been completed so as to improve student preparedness in the event of the disaster from the practice to overcome disasters.

Keywords: Natural disasters, Disaster Education, Community Service, Disaster preparedness

1. Introduction
National Disaster Management Agency (Badan Nasional Penanggulangan Bencana /BNPB) noted that natural events occur throughout Indonesia. The Aceh earthquake and tsunami (2004), Tasikmalaya earthquake (2009), the Mentawai earthquake and tsunami (2010), volcanic eruption in Sleman, Yogyakarta (2010), and a series of disasters in 2018, among others: landslides in Brebes,
Central Java; earthquakes in Lombok, NTB; the earthquake, tsunami and liquefaction in Palu, Donggala, Central Sulawesi; and the tsunami that occurred in the Sunda Strait in December 2018. This suggests that the existence of both Indonesia and the Southeast Asian region, in particular, are prone to natural disasters, predominated by earthquakes accompanied by tsunamis [1].

The impacts of natural disasters namely humans, natural environment, and damage due to the establishment of public facilities. The solution to overcome this problem is to bring knowledge to the community. According to Dewi [2], mitigation is an action taken to reduce the impact of natural disasters. Disaster mitigation and education are essential to be introduced, especially at an early age. One way of mitigation is to increase rescue exercises carried out in the case of tsunamis, earthquakes, landslides.

The high potential for natural disasters is inversely proportional to the swift public awareness in order for them to learn education disaster mitigation in disaster-prone areas. The low awareness of the lack of knowledge will be enhanced by mitigation [2]. One of them required interventions in the form of an increase to the ability for the people to know the vulnerabilities that exist so as to become the main actors in disaster risk reduction efforts — conditions for the purpose of their own safety and to minimize losses incurred. Efforts are made in public in disaster in response course if people arrange a plan in disaster risk reduction as well as possessing the knowledge to perform during pre-disaster, emergency responses, and post-disaster [4]. To minimize the impact of natural disasters, one of which is to provide education to the community of disaster mitigation promptly. Disaster preparedness education may be done at schools by providing awareness of the hazards and disaster risks, stimulate curiosity about the dangers and preparedness in the face of disasters, allowing the students to be active in disaster preparedness, and taking measures that are prepared to overcome with disasters [5]. Studies conducted by Maryani [6] show that media with method Cooperative learning and problem-solving, in addition to other methods such as discussions, simulations, demonstrating the increase of the students' understanding of obtaining the learning material about disaster. The same thing needs to be performed promptly. The majority of young children do not understand what to do in the event of a disaster. Young children need to know the appropriate steps in responding to disasters [7].

2. Method

Methods of this program were done by providing knowledge and training or simulation of the response to the object. Tanjung Anom District of Mauk was chosen as the research, including disaster-prone locations. Through education, disaster preparedness is expected to improve the quality of human resources.

Along with the implementation of the community service program which implements the paradigm of building a tradition of togetherness. Subject devotion in the form of primary education students is was undertaken so that clear and measurable programs may actively accomplish the targets. Anthropology and psychosocial approaches are expected to change the paradigm of the community so as to the community to play an active role in the environment. There are three (3) steps of guidance that have been assumed, and communities will be established for the disaster mitigation programs, among others:

1. Early socialization program; aims for the society or the participants to understand the purpose of community service and to build a community with characters who are aware of their surroundings. Increase public awareness by promoting public awareness so that the facilitation provided to the public is in place with a program that will be implemented. The emotional approach is also used as a form of engagement like the local society.

2. Socialization disaster mitigation; aims to provide education to the participants on disaster concerning to theory of “before-when-after a disaster”. The provision of the education may be facilitated based on expertise or experts who are experienced in the field and may also be given by the public servants in order to make use of the media effectively.

3. Simulation of disaster mitigation; aims to prepare standby human resources in the face of disaster. Develops competence to be tested in the simulation process, the theory which was taught the
socialization period will be practiced in the simulation phase of disaster mitigation. At this stage of disaster mitigation, simulation, the participants are exposed to the process of disaster and properties as along with practices required to be performed.

3 Result and Discussion
Mitigation is an effort to reduce the worst risks in the event of a disaster. Law No. 24 of 2007 describes the basic principles, the authority, and responsibility of local and government administration in response to a disaster. Society has rights and obligations in terms of disaster management. Also, subject to Government Regulation No. 21 of 2008 stating that the participation and engagement of institutions and civil society organizations, the business community and aims to increase participation in order to aid to construct disaster-prone areas towards a better and a sense of caring disaster-prone areas.

Cooperative community service programs aimed at raising public awareness in which Indonesia has the potential natural resources of the individuals. Society path of an active volcano, known as active tectonic belts, provides the key to the whole community to be aware of the potential for natural disasters to be faced. The majority of young children are not aware of the actions in case of disaster, lack of education on disaster mitigation in which should be a particular concern both for the agency and the government. Early childhood should know the proper steps in addressing the disaster, mainly for their own personal safety. Education is one of the effective means to reduce the risk of disaster.

Early-age disaster alert education is essential to be provided. The area of SDN Tanjung Anom borders the coast meaning that it would be important to understand the actions to be undertaken in the event of disasters. This community service program provides knowledge to the students pre-disaster, during disaster and post-disaster. Disaster kit consisting of important equipment required in the event of disasters is one of the mitigation efforts in which it needs to be prepared in the face of an earthquake. In addition, other mitigation efforts provided namely by providing education during the disaster include drop-cover-hold on, bringing disaster kit to the assembly point and gathering with family at a safe point as well as ensuring their safety. Several forms of disaster alert education may include providing brochures, installing signages and introducing to games relating to such education.

Disaster socialization was delivered in the socialization process to the simulation. This was done in order to facilitate the elementary students of Tanjung Anom regarding the material that has been delivered. The materials presented on the introduction of natural disasters and disaster mitigation education with two agenda and then was reviewed in the form of team games or groups. Class members were divided into eight groups with the objective to determine the level of understanding of the students who were given materials on natural disasters and disaster mitigation. Quizzes and the evaluation were completed as a form of channeling insight into disaster through the inclusion of a cognitive quality [8]. This activity was performed to minimize dullness and optimize the understanding of disaster through fun activities so as to the information to be received wholly absorbed and utilized by the participants. The evaluation was conducted through the means of entertainment so that learners participate without feeling burdened by the material presented [9]. This activity is also a means of channeling the creativity of the participants in the process of insight in affective and psychomotor components. The evaluation was done by utilizing group games so that students may absorb the materials properly. Moreover, this is done to simplify the simulation process of disaster mitigation.

Simulations carried out by a team of officers as a resource by providing examples of actions that must be undertaken in the event of a tsunami at the site of devotion. Training through simulation is expected to increase the knowledge and awareness of the participants in the efforts to mitigate the tsunami. Simulation of disaster mitigation is expected to encourage disaster agencies to participate in this program.
Disaster preparedness education is integrated as a model alternative way of learning or disaster mitigation of basic educational institutions. Disaster preparedness education may also be implemented in the subjects of Natural Sciences and Social Sciences [10] so that in practice may conform with the theory. Disaster preparedness education also prepares students to be ready to face natural disasters. Disaster preparedness education is mental and character education as citizens who are aware of the potentials of the utilization of their surroundings.

The outcome of the community service conducted in SDN Tanjung Anom namely the students was aware and have understood the potential of natural disasters occurring specifically in their area of residence. Students also learn the occurrence of natural disasters and obtained knowledge of the actions to be undertaken in the event of a natural disaster. By providing disaster alert education materials and small simulation increased the students’ preparedness pre-disaster, during disaster and post-disaster. The students have become competent theoretically and practically to overcome disasters so as to through the provision of the program the risks of disaster are alleviated as well as its vulnerability and dangers of disaster.

4 Conclusion
Disaster preparedness education may be conduct at schools by providing awareness of the hazards and disaster risks, cultivate curiosity about the dangers and preparedness in the face of disasters, encouraging students to be active in disaster preparedness, and taking measures that are prepared to deal with disasters. Education is one of the effective means to reduce the risk of disaster. There needs to be an applicable mechanism in disseminating the potential strategic hazard, to build individual character stand against natural disasters from an early age, and to improve the competence and quality of individuals facing the disaster.

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