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## The Influence of Geography Lessons in Disaster Mitigation Education toward Preparedness of Senior High School Students in Face of the Disaster

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## **The Influence of Geography Lessons in Disaster Mitigation Education toward Preparedness of Senior High School Students in Face of the Disaster**

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**Abstract.** West Java Province as one of the provinces that are vulnerable to disasters. Senior high school students must have a preparedness attitude in face of such disasters. Learning geography in disaster mitigation education was expected to become the foundation to improve the preparedness of high school students. The aim of the research was to analyse the influence of Geography Education in disaster mitigation education to senior high school student's preparedness to deal with disasters. This study uses a quantitative approach with survey method. The results showed that the influence of learning geography in the mitigation disaster study towards preparedness senior high school students, reaching 39%. Magnitude was the overall role of the three districts, then will be broken down into the role of a district. The role of learning geography in mitigation disaster study in senior high school students to preparedness of learners in Garut amounted to 57.21%, in Tasikmalaya amounted to 46.88%, and in Pangandaran Regency amounted to 28.46%. Learning geography in mitigation disaster study had a significant influence on the preparedness of senior high school students in face of the disaster in West Java province.

### **1. Introduction**

West Java Province is closely associated with natural disasters. According to some sources mention that on January 10, 2010, South Tasikmalaya district hit by an earthquake measuring 5.4 magnitude (Web MEMR). Furthermore, on July 17, 2006 district-hit Pangandaran tsunami with a height of 1 to 3.5 meters by 6.9 magnitude earthquake begins [1].

In addition to the earthquake and tsunami, landslides also very closely related to the province of West Java. Landslide occurred in Caringin District Garut regency were cutting along the provincial road 100 meters South cross Garut [2]. The fact is increasingly emphasized that the West Java province and some districts that is in it potentially exposed to various types of disasters.

Preparedness is essential for anyone who resides in West Java Province which is very prone to disaster [3]. Not only for the public, in this case more devoted to the category of learners on how to deal with disaster by giving lessons in the schools. The Subjects that



interact directly with the disaster that is geography. Geography subjects discuss the relationship between humans and nature in the vicinity. Therefore, it is an intersecting geography subjects in instilling an understanding to the students, especially in senior high school students about disaster preparedness.

Discussion of the disaster is in Disaster Mitigation Study. As in the curriculum 2013, the material contained in the Disaster Mitigation Semester 2 Class X. Meanwhile, the Education Unit Level Curriculum (SBC) are not specifically this material, but the teachers are encouraged to take the initiative in disaster mitigation study include the material lithosphere or geosphere in general. For example in the matter of disaster mitigation in senior high school to discuss about which areas are potentially affected by the earthquake, how to read their potential, then how to deal with and overcome.

Learners who obtain disaster mitigation study is expected to have a better understanding about disaster preparedness compared with students who did not receive the material[4] [5]. This is exactly what will be the provision of learners in the face of disaster that may occur at any time in the neighborhood. The role of education in improving preparedness and will be more meaningful if it is driven by the government's participation.

The role of government in building the quality of human resources, in which there is a broad public and learners is necessary so that they are better prepared to cope with disasters. However, besides that it is also the community and the students are required to will have their own desire to get an understanding in face of the disaster is self-taught, without relying on the government or related agencies. Continuity of cooperation between the government, the students and community mentioned to increase preparedness in face of the disaster.

The preparedness in face of a disaster is not just a priority to the community but also to the world of education. In this case, the students in senior high school level it is necessary to understand how to deal with disasters that may occur at any time. The role of geography subjects is important in shaping the preparedness of high school students in the face of disaster, particularly in the application of the disaster mitigation study. Disaster mitigation study will review how the potential for disaster in an area, and then how to deal with and overcome. The learners who obtain disaster mitigation study certainly have a better understanding of the preparedness towards disasters compared with the students who did not get the study to the disaster mitigation.

The purpose of this study was to analyze the influence of geography in the subject matter of the disaster mitigation preparedness in face of senior high school students in West Java disaster (tsunami, earthquake, and landslide).

## **2. Method**

This research uses descriptive method. Described by [5] descriptive research that "more directed to the disclosure of a problem or situation as it is and to uncover the facts are there, although sometimes rendered interpretation and analysis".

The process of implementation in the field using survey methods. [5] states that the survey method is a "survey is a research method that aims to collect some data in the form of variables, units or individuals at the same time". Furthermore [6] explains that "The methods of the survey is an investigation conducted to obtain the facts of the symptoms and work out the particulars in fact, both of the institutions of social, economic, political or of a group or area".

Deduced from the definition above that survey research methods useful for generating data that results can be accounted for. Implementation of the survey method can use a variety of ways, depending on what data is desired.

### 3. Results and Discussion

The results showed the influence of geography teaching in the material disaster mitigation preparedness towards senior high school students, reaching 39.27%. Magnitude role is 39.27% overall from three districts, will then be broken down into the role of a district. The role of geography in the material disaster mitigation in senior high school to the preparedness of learners in Garut amounted to 57.21%, in Tasikmalaya amounted to 46.88%, and in Pangandaran Regency amounted to 28.46%. Detailed discussion of per-District will be discussed as below.

Actual and relevant explanations about the potential disaster in the area of residence of each learner, making learners will be more sensitive and quickly absorb new information, because it happened for real in their environment. The combination of new knowledge or information on events in the field, making meaningful learning to be very effective in the planting of preparedness for learners.

Garut who has the most impact is influenced by the lack of knowledge acquired outside of school learners, therefore the learners only get knowledge about the disaster at school. Similarly, the learners in the district of Tasikmalaya, they only get knowledge about the disaster at school. Unlike the case with learners in the district of Pangandaran. Learners in the district of Pangandaran is very much get knowledge about the environmental disaster of the community, with frequent counseling on disasters. Complete infrastructure such as banners disaster mitigation and evacuation routes, causing a lack of influence of geography on the subject of disaster preparedness high school students in the district of Pangandaran, because they already have that knowledge in their environment.

Judging from the factors of teachers, distribution of questionnaires to teachers of geography lessons can be concluded that most teachers are not from scientific geography that is linear. The teachers do not assemble RPP properly regarding disaster mitigation materials. Curriculum 2013 [7] provides disaster mitigation study separately from material geosphere, it allows teachers to improvise material to be delivered, and it requires teachers linear, as linear teachers have a deep understanding of the study.

The teacher uses the curriculum SBC, less have a high awareness of the importance of disaster mitigation study, exacerbated this material is not specifically stated in the curriculum, as well as the background of teachers who do not lenier. This matter should have been inserted in the geosphere material. The factors that mentioned into one of the reasons the influence of geography in the material subject of disaster mitigation in high school a little impressed.

The importance of schools in shaping the preparedness of learners as reflected in the research conducted by [5]. He conducts research in several places in Japan and elsewhere in the Indian Ocean after the tsunami disaster. He tried to compare how the lives lost and what is partly the cause. The results are surprising, in Japan for the victims of school-age children under 20 years old is 6% of the total number of fatalities, while the number of victims in the Indian Ocean reached 44.6% for school-age children under 20 years old.

Seen from these explanations, Japan has been quite successful implanting of disaster preparedness on learners, reflected by the small number of deaths in school-age children. Inversely to what happened in the Indian Ocean, one of which is Indonesia. There is still a lack of knowledge of geography teachers on the importance of disaster mitigation study, compounded by not lenier background of the teacher education, and the lack of disaster mitigation activities in the community, resulting in the difficulty improve the preparedness of high school students in Indonesia, especially in West Java province.

#### 4. Conclusions

There is a significant effect of learning geography in disaster mitigation study to high school students preparedness to deal with disasters in West Java. Significant for learning geography in disaster mitigation material is provide new knowledge for students about how to deal with a disaster which their respective regions. Based on the research findings as well, the results were in accordance with meaningful learning theory, because the information is current and relevant in learning can improve the preparedness of students in face of the disaster.

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