The improvement of disaster prevention awareness through classroom practices using disaster geographic educational contents

*Yuki Kurisu¹, Takashi Kawanishi¹

1. Geospatial Information Authority of Japan

A hazard map is important as a tool for saving us from disasters which happen frequently nowadays. Through the Basic Disaster Management Plan, the hazard map is becoming more well-known to the general public. However, there is an issue about the improvement of disaster prevention awareness and comprehension, because few municipalities provide intelligible contents to understand how to use the hazard map and grasp its risks. Thus Geospatial Information Authority of Japan (GSI) released educational contents that lead people to understand the hazard map step by step using height differences and landforms which affect disaster risks. We would like to report a classroom practice using disaster geographic educational contents we released and how disaster prevention awareness of the students changed.

The contents we used in a classroom practice have features as follows. The first is a conversation between a professor and his student talking about disaster prevention. Students will find the topic interesting because questions will be asked about the important points in understanding a hazard map. Secondly, we organized the contents in phases to make them easy understood. Students know what types of disaster will happen in each location, and then they will learn the expected risks in those places. After that, students consider which evacuation shelter is appropriate based on the differences of the risks and the history of land formation. Eventually, students learn how to prepare for wide-area compound disasters. Finally, there is cross-curricular learning in order for students to be familiar with disasters. To realize how dangerous hourly precipitation is broadcasted in severe weather, we compared the volume of precipitation to something familiar with us using arithmetic, which leads to the understanding of the risk through watershed.

We would like to report the change of disaster prevention awareness that the contents brought in. We gave a lesson for the first-grade students at junior high school using the contents. When we asked them how their disaster prevention awareness changed, 90% of them answered that they understood the contents and their disaster prevention awareness improved. Some students said that he would tell his family about the information regarding disaster prevention and would like to know other kinds of disasters. In other words, the contents have the aspect of being effective tools for growing disaster prevention awareness.

GSI has released and provided educational content for the disaster risks through the toolbox for geographic education (https://www.gsi.go.jp/CHIRIKYOUIKU/index.html). GSI will continuously support the improvement of disaster prevention awareness through conveying the educational contents in various opportunities.

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