

## Utilization of Digital Resources to Facilitate Disaster Prevention Comprehension

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It has been found that about 20% of the world's earthquakes occur near Japan. Two recent examples are the Osaka earthquake (June 18, 2018) and the Hokkaido Eastern Iburi earthquake (September 6, 2018). The GNSS Earth Observation Network System (GEONET) and the High Sensitivity Seismograph Network Japan (Hi-net), among others, are maintained to detect huge earthquakes in Japan. They are used for the Earthquake Early Warning (EEW) system. And after an earthquake, such as the Tohoku Earthquake off the Pacific coast, we use the Dense Ocean Floor Network System (DONET) to help us understand how the quake change the ocean floor crustal deformation. All of this data is available to the public, and it is possible to teach everyone about Japanese crustal deformation and seismic activity. But because large scale data processing and visualization are difficult, it cannot be easily utilized for Junior High School education. On the other hand, the digital resources of Dagik Earth are available as another option, and the improvement to active learning is significant.

In this study we created animations of sea level change of the KANAGAWA region using a topographic solution of 10meter DEM data from the Geographical Survey Institute of Japan (GSI). The newly created animations will help students understand how different sea levels can change the coastline visually. This will be a significant aid to student comprehension. Using these animations in Junior High School science and disaster courses, we hope to change people's attitude towards nature; especially in relation to big earthquakes and big tsunamis.

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