

A practiced study program of the soil liquefaction at the grade-school in the stricken area of Tohoku earthquake

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The reclaimed land around the Tokyo Bay, for example Urayasu, Chiba, was damaged by soil liquefaction of the 2011 off the Pacific coast of Tohoku Earthquake. Damage of soil liquefaction also occurred on the schoolyard. But the schoolyard is the important evacuation area in every school. The surface peels of cross section of sand cones which were formed by soil liquefaction in the schoolyard of a grade-school, Mihama-ku, Chiba were obtained and studied on March 30 and April 1, 2011 (Kasama et al., 2011). A special lesson of soil liquefaction using surface peels for the sixth grader was taken place at the same school on October 26, 2011. The lesson included such items, the outline of the Tohoku Earthquake, the history of the reclamation of the Inage seashore, the experiment of soil liquefaction using a PET bottle and the sand cone formation. The questionnaire was performed after the lesson. According to the replies by children, the shake of the Tohoku earthquake is slightly fearful (62%), about the water spouting by liquefaction on the schoolyard: although it was fearful, interest was also felt as a wonderful phenomenon (48%), about sand accumulating on the schoolyard: Interest was felt a little (52%), about our school is on reclaimed land: knew (97%), about liquefaction: knew after the Tohoku earthquake (65%), about sand cones: known by this lesson (55%), about understanding of this lesson: very well (the history of the reclaimed land: 51%, mechanism of soil liquefaction :71%, formation of sand cones :65 %), and the comment of the lesson: very good (86%). The result of the questionnaire showed that while aftershock continued, the children looked at the soil liquefaction with interest and fear in the schoolyard, and also that the soil liquefaction is over the range of the government guidelines for teaching, but by using suitable experiments, degree of comprehension and interest became high.

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