

Investigation on the behavior of schools in Tochigi prefecture on the 2011 off the Pacific coast of Tohoku Earthquake

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1 Introduction

The 2011 off the Pacific Coast of Tohoku Earthquake (simply refer as The Tohoku Earthquake hereafter) occurred on 14:46 JST, when students and pupils were still in school at most schools. It is very important for future consideration on disaster prevention in schools to investigate and record the behavior of schools at the occurrence of the Tohoku Earthquake. The committee of school education, Seismological Society of Japan carried out the investigation on the behavior of school when the Tohoku Earthquake occurred in several regions in east Japan. We report here about the result of the investigation in Tochigi prefecture.

2 Outline of the Investigation

We have produced a questionnaire that consists of about 50 questions in order to investigate school behavior on the earthquake. In Tochigi prefecture, since the Board of education supported us, we have sent questionnaire to all public schools from elementary school to high school and obtained answers from 89 % of them, that is 567 schools. The survey carried out from September to October, 2011.

3 Results of the Investigation in Tochigi Prefecture

When the Tohoku Earthquake occurred, 60% of schools lost the electric supply and 18% of schools have damaged seriously. About half of schools failed to make contact to the local board of education which governs the school. Therefore teachers must make decision by themselves in most schools without any suggestions from the local board.

In 86% of schools students have been evacuated from buildings to school yard. The evacuation has performed within 30 minutes in most schools.

95% of schools changed the time tables by the occurrence of the earthquake and let students go home early. They waited parents to come to take their children and did not release students alone in most schools.

4 Problems on the plan of disaster prevention in school

All schools must have the disaster prevention plan. However, the occurrence of the Tohoku Earthquake made clear some problems on the disaster prevention plan of schools.

First of all, although it is planned to evacuate students from buildings when large earthquake occur, there is no plan after evacuation to school yard in most schools. It means that most plans didn't assume what happens after large earthquake accurately.

Second, there is no plan about the method to go back students to home when large disaster happened in more than 60% of schools.

5 Discussions

We have many earthquakes in Japan and have experienced many disasters by earthquakes historically. Nevertheless, preventive measures against large earthquakes are generally considered not enough in Japan except for some limited areas.

Through our investigation it makes clear that the preventive measures in schools also aren't enough. We must discuss about the evacuation from buildings, method to let go back students home, the role of decision making about release students from school, and many other matters. Most important policy is to improve individual ability to act correctly against earthquake disaster. It is necessary to include education for disaster prevention into school curriculum much more than present situation.

Keywords: Off the Pacific Coast of Tohoku Earthquake, disaster prevention in schools against earthquake, Tochigi prefecture, behavior of schools in huge earthquake