

Measuring the effects of disaster risk awareness education

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Beginning in the 2013 fiscal year, this study utilizes "Science Delivery" based education, beginning within disaster risk awareness activities in Miyagi Prefecture's disaster struck areas in 2014. The "Science Delivery" approach, adopts an easy to understand explanation of natural hazards and disaster science to children ages 10 and 11.

The basis of this study is to observe and cultivate three primary themes: situational cognitive ability, judgment, and crisis avoidance behavior. This study examines the changes in risk perception between the period prior to the lecture and activities, and one month after, utilizing questionnaires to measure these changes.

This year, we were able to shorten the section, where we explain natural hazard mechanisms and the current situation of disaster, by 10 minutes. As a result, the time was used towards group work activities. In the second half, a game that allowed participants to view images during a disaster while utilizing a stamp game, allowed participants to consider and locate dangerous areas at home and what kind of actions to take in the next disaster. The through the use of colors, the design of the stamp was devised to identify actions that promote self-resiliency, mutual assistance, and public assistance. These categories allowed participants to understand that there are a variety of approaches, deepen the understanding of actions that could help each other, and to envision and stimulate a disaster event that led to such actions. These actions become real experiences, knowledge, and contribute to improved judgment, leading to a deeper understanding of actions towards disaster risk reduction.

This time, in addition to the pre and post questionnaire, an additional survey was conducted one month after the activity. The results of the Science Delivery based approach witnessed an increase of households prepared for disasters from 61 percent from before the activity to 78 percent after, but regressed to 72.1 percent one month after.

Additionally, children who strongly considered the safety of the family changed from 43.3 percent prior to the questionnaire to 62.4 after the questionnaire, and regressed to 47.9 percent a month later. One school experienced an increase in disaster awareness as it experienced local flooding one month after the questionnaire. Inferred from this result, gains in scientific knowledge were recorded and disaster risk reduction awareness is increased. It is expected that continued future lessons of this nature will continue to foster children's situational cognitive ability, judgment, and crisis avoidance behavior at home. From now on, we want to elevate disaster risk reduction awareness when approaching natural hazard and disaster risk reduction education.

Keywords: natural hazard, improved judgment, risk reduction awareness