
 [JJ] Evening Poster | G (General (Education and Outreach)) | General (Education and Outreach)

[G-03]Disaster prevention education

convener:Hitoshi Nakai(Kobuchisawa Research Institute for Nature and Education), Jiro Komori(Teikyo Heisei University), Shintaro Hayashi(秋田大学大学院教育学研究科)

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Each time a serious disaster occurs, there are calls for better disaster prevention education in and around the stricken area, and such education is actually implemented. However, it is not extended to other parts of the nation. Although disaster prevention education really is needed across Japan, it tends to be implemented only in the directly affected locality of a catastrophic disaster. Moreover, even in affected areas, when 10 to 20 years have elapsed from a major event, with a decline in the number of survivors, there is less motivation to pass experiences and learning on to the next generation, despite the potential for such disasters to recur, tens or hundreds of years into the future. It is not easy to maintain conversations about disaster experiences through several generations. Consequently, effective disaster prevention education is provided only in the region stricken by a particular event, and it is practiced only for up to 20 years following the last disaster. As a result, provision of disaster prevention education has become less effective in many areas of Japan. This session focuses on the following two questions: (1) What kind of disaster prevention education can be practiced continuously nationwide? (2) How can such disaster prevention education be implemented in schools and educational sessions? We encourage anyone who wishes to help develop new disaster prevention education based on awareness of these issues to make a presentation in this session. Participation is not restricted to geoscientists; any person or group engaged in any domain of disaster prevention is welcome to submit a paper.

[G03-P03]Lightning as Natural Disaster and the Disaster Culture in case of Visayas, Philippine: a Preliminary Result of Face-to-face Interview via Skype

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Lightning may not be such a big threat as a natural disaster. In Philippine, the number of annual death caused by lightning is limited (13 people in 2013 and 5 people in 2014) and it is less than 2% of death caused by natural disasters (Philippine Statistics Authority, 2015). Also, based on the interview survey on natural disasters for young people living in the Visayas region of the Philippines (Ito, 2017, 2018), they do not regard lightning as a terrible natural disaster. However, the old customs against lightning also remains in the Visayas (Olofson, 2002) and it is quite interesting to consider lightning as a disaster culture. In this study, I would like to discuss how young people in the Visayas have got involved with lightning from their childhood, and how they are coping with lightning now using the same method as Ito (2017, 2018). The interview was carried out by the author on the face-to-face communication via Skype. The survey period is about one and a half year from September 2016 to February 2018, and the interviewees are over 120 teachers of commercial based online English classes. The question was the following ten items. Questions 1 to 3 are about experiences in their childhood, the question 4 and the following questions are about their current understanding and situation. Besides Question 1, it is a premise that intense lightning is approaching. 1. After a thunderstorm went up, have you been to look for a white stone? 2. Did you have experience been warned that you should not laugh (or you should not show your teeth)? 3. Did you have experience been warned that you should not play with cats (or you should not touch cats or other animals)? 4. Do you cover a mirror in the house with cloth? 5. Do you

cover the TV screen with cloth? 6. Do you turn off the mobile phone or smartphone? 7. Do you think it dangerous to take an umbrella and go out? 8. Do you think evacuating beside a tree is dangerous? 9. Do you turn off the TV? 10. Do you turn off the TV, and then disconnect the power outlet or antenna cable? Regarding the childhood experience, only 15% of the interviewee had the experience trying to find white stones after thunderstorms rise, and been warned “do not play with cats (or do not touch cats)” when lightning comes near. On the other hand, half of the interviewee had experience been warned that “do not laugh (or do not show your teeth)”. The reason why we should not smile (or not show our teeth) is based on the understanding as shining teeth invite lightning. The reason to hide the mirror in the house is also the understanding that the mirror tends to enter the lightning. The popularization of the behavior to hide the mirror inside the house at the approaching situation of lightning differed according to generation, exceeding 70% in the generation of interviewees’ parents, and about 50% of interviewees. It is introduced in Olofson (2002) that Cebuano has a custom of hiding a mirror during lightning, but this study showed that it was remarkably becoming obsolete through generations. When the lightning is approaching, 90% of the interviewee turns off the TV, 80% turns off and unplugs the TV, and 65% thinks that hiding beside the tree is dangerous. Since turning off and unplug the electrical product from the outlet prevent the high voltage of lightning from coming into the room (Society of Atmospheric Electricity of Japan, 2001), it seems to be reasonable behavior from a safety standpoint. Also, keeping a distance from a tree is also reasonable as evacuation behavior to prevent an indirect lightning stroke (Society of Atmospheric Electricity of Japan, 2001). From these, it can be seen that the behavioral guidelines for lightning based on scientific grounds are widespread. Meanwhile, 54% of the interviewee who turns off and unplugs the TV hides also the mirror in the room. Thus, in the Visayas region of the Philippines, it was recognized that indigenous customs and safety behaviors based on science coexist at the present.