

Disaster Prevention Education Programs to Increase Risk Perception

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1. Introduction

The 2011 Great East Japan Earthquake raised awareness of the importance of disaster prevention education. Japan's Ministry of Education, Culture, Sports, Science, and Technology (2013) has emphasized the importance of developing education programs that nourish children's independence. However, a survey we conducted in 2015 revealed that it is difficult for school teachers to develop such programs for disaster prevention by themselves (Nagamatsu and Oki, 2015).

2. The “*Finding Risks in the Photo (FRP) Class*” and Photovoice method

This research will discuss a teaching material that we developed mainly for elementary school students. In it, named the “*FRP Class*”, students are to look at photographs of themselves in certain situations and find items that may be dangerous when a large earthquake occurs. Since the students themselves are in the photos, they can perceive earthquakes as their own problems. In fact, we have been receiving reports that students became more proactive in learning about disaster prevention, and also became faster at reacting to earthquakes and drills (Oki, 2016).

The Photovoice method, established in public health studies, resembles the “*FRP Class*” in that it uses photos. By explaining to others about the pictures that they took, people find problems of themselves or their community. Originally in the “*FRP Class*”, the students were pictured in the photos. This time, by applying the Photovoice method to the “*FRP Class*”, each student became the photographer, rather than the subject. We investigated how their awareness of disaster risk management would change throughout the process.

3. Research methodology

We held a workshop on disaster prevention in Tsuruoka City, Yamagata prefecture, targeting students from Grades 2 to 4 in Tsuruoka and nearby cities. Participants took two pictures of their favorite places and sent them to us by e-mail in advance. During the workshop, the students learned about disaster prevention through various activities. Later in the workshop, we had the students introduce their favorite places to each other and explain its dangerous points. In the end, we assigned them to take pictures of the same place that they had taken beforehand, and to rethink about what they like, and what they think is dangerous about the place. We found that some took photos from different angles, to capture the dangers that had not been pictured in their previous photos. This suggests their ability to evaluate risks in actual earthquakes.

4. Results

We conducted a follow-up survey on some participants. As a result, almost all of them spoke of what they learned to their friends or family in addition to re-considering dangerous points. Furthermore, some reviewed their emergency bags and others discussed about evacuation sites. This corresponds to the three elements of study in the theory of “community of practice” (Lave and Wenger, 1991), that is 1)internalization of knowledge, 2)change of identity, and 3)expansion of learning community.

5. References

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