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How to Protect Ourselves from Disasters: The Role of Social Studies Education in Collaboration with Asian Nations

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Abstract

The purpose of this study is to propose the significance of education for disaster prevention collaborated with Asia countries. The challenge lies in maintaining a high level of motivation for disaster prevention topics among students from elementary to high school, especially in classes of social studies and the same or equivalent subjects, geography and history. The proposal for disaster reduction education in this paper is as follows. The disaster prevention education for elementary to high school should always be devised according to the characteristics of each school type so that students can view the topic as their "personal matter." One of such attempts would be introducing the topic of real-time disasters that occur in the world, especially in Asia, to integrate into the class contents, along with the information regarding disaster prevention measures implemented in these countries, to enhance students' awareness of disasters and disaster prevention.

Keywords: Social studies, Disaster prevention education, Personal matter, Asia

Introduction

Disasters strike populated areas anywhere in the world. Japan is one of the most frequently attacked areas by natural disasters of various types, including strong winds, heavy rains, and floods by typhoons, earthquakes, volcano eruptions, heavy snows, and others. In this circumstance, the significance of education for disaster prevention is drawing recognition in social studies education since the Great East Japan Earthquake. The Japanese Association for the Social Studies (JASS) (2018) were reported its accomplishments and practices based on a series of field survey. As for the education for disaster prevention in social studies in Japan, accomplishments of JASS were widely published to the world through presentations in international symposiums or efforts by Ida (2014), and further studies were in progress when the pandemic of COVID-19 hit the world. The COVID-19 pandemic should be categorized as a disaster. Natural disasters are very localized, whereas the pandemic hit us concurrently on a global scale. Though natural disasters are localized in scale, we can expect

various merits in providing children and students with an education for disaster prevention from an international perspective beyond the boundary between nations. In this study, the necessity of global collaborations, especially with Asian nations, in education for disaster prevention in social studies is proposed through investigation focusing on our neighbours, Asia, who is connected strongly to us through trading and mobilities of people, concerning the social studies education in Japan. That is, the purpose of this study is to propose the significance of education for disaster prevention collaborated with Asia countries.

As for the investigation, first, the transitions in disaster prevention education in social studies in Japan are reviewed in reference with the Courses of Study and classroom textbook. Next, characteristics of Japanese social studies education in disaster prevention are clarified. Lastly, based on the review and clarification, the significance of collaboration in disaster prevention education with Asia is discussed, and an ideal state of disaster prevention education in collaboration with Asian nations is proposed.

Year of national curriculum	Junior high school (G7-9)	High school (G10-12)
1977	Land use and environment conservation in Japan(sub-item)	Regional development and environment conservation(sub-item)
2008 • 2009	Natural environment(including disaster prevention)(subdivisionitem)	Natural environment and disaster prevention (sub-item) (1p:explanation)
2017 • 2018	Natural environment(including disaster prevention)(subdivisionitem)	Natural environment and disaster prevention (sub-item) (6p:explanation)

Table 1 ransition of social studies textbooks as for disasters prevention in Japan

Transitions in Disaster Prevention Education in Social Studies in Japan

Revisions are made on the Courses of Study in Japan for roughly every ten years. Table 1 shows the items related to natural disasters or disaster prevention that appear in the Courses of Study. The topic of environment was highly emphasized in the Course of Study issued in 1977, as seen in Table 1, described in items such as land use, regional development, and area maintenance in social studies of junior high school and high school. Disasters were categorized under environment and were not put much emphasis as an independent item. Their descriptions in textbooks were mentioned to enhance a feeling of respect toward natural environment through examination between merits and demerits of natural environments for human beings, as seen in a phrase such as "benefits of nature and natural disasters." However, from experiences of disasters in epic proportions, such as the Great Hanshin-Awaji Earthquake in 1995 with over 6,400 deaths, priorities in the education of social studies in junior high school, and in geography and history of high school have expanded from environmental preservations to natural disasters and disaster preventions. In the Courses of Study issued in 2008 and 2009, natural environment and disaster prevention were added as independent items in social studies in junior high school and geography and geography and history in high school; thus, natural disasters and disaster preventions were described in textbooks.

The Great East Japan Earthquake in 2011, by which the nation has suffered the loss of over 18,000 lives, was the major turning point in the progress of disaster prevention education in Japan. The Ministry of Education, Culture, Sports, Science and Technology (MEXT) conducted a series of investigations after the Great East Japan Earthquake regarding various items, including evacuation behaviors of children. Following the relevant reports and recommendations of the MEXT investigation, the Notice of the Courses of Study Guideline was exclusively issued in 2014. The notice declared that topics of natural disasters in Japan should be addressed in class in the geographic field of social studies at junior high school and, geography A and B which are subject names of high school, including topics that there are many areas in Japan where natural disasters occur, such as large-scale earthquakes and damaging typhoons, and that firefighters, police, the Japan Coast Guard, the Self-Defense Forces, local residents, and volunteers work together to respond to disasters (MEXT, 2014).

Following the suffering of the Great East Japan Earthquake and the exclusive notice mentioned above, textbooks were also revised with increased descriptions of disaster prevention. For instance, the textbook of the geographic field of social studies published by Nihon Bunkyou Shuppan Co., Ltd. spared two pages for disaster prevention in the 2001 edition edited by Yamamoto et al. (2001), whereas the 2013 edition edited by Kinda et al. (2013) increased relevant pages up to six pages. Likewise, the textbook of geography A published by Ninomiya Shoten. for high schools spared two pages for the topic of disaster prevention in the 1997 edition edited by Yamamoto et al. (1997), whereas the 2013 edition edited by Yamamoto et al. (2013) increased the pages up to six pages.

The disaster prevention education was further enhanced in the Courses of Study issued in 2017 and 2018, and the additional emphasis was put on the topic of disaster prevention from elementary to high schools, and not only in the subject of social studies but also in other subjects such as science. The textbook for the geographic field of social studies at junior high school published by Nihon Bunkyou Shuppan increased the description of disaster prevention to 12 pages in the 2020 edition edited by Mizuuchi et al. (2020), doubling the contents compared to the six pages in the 2013 edition. Regarding the high school textbook of compulsory geography, the contents related to disaster prevention have 22 pages (Ida et al., 2021), up to 10 % of the total pages. The contents of the description themselves have also been improved as shown in Figure 1, from the study of situation assessment, such as describing natural disasters and preventive measures against them, to the future-oriented content that demands decision-making, such as asking, "How we prepare ourselves in disaster prevention against natural disasters."

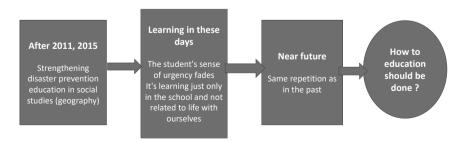


Figure 1. Flow of disaster prevention education

Issues in Disaster Prevention Education in Social Studies

By the amendments of the Courses of Study issued in 2017 and 2018, the education for disaster prevention according to the Courses of Study has been initiated since 2020 at elementary school and completely introduced in 2021 at junior high school. It will be initiated in high school from 2022 by the grade-level progression. Due to the Courses of Study implementation enhanced with education for disaster prevention, practical research on disaster prevention education in social studies has been further accumulated. The study by Inoue and Kohmoto (2019) revealing transitions and challenges in disaster prevention education, the development of disaster prevention lesson program by Yokoi (2019) using maps like hazard maps, the study by Sogawa (2020), the lesson model related to the natural environment and disaster prevention proposed by Kobashi (2021), the unit development by Ueda(2020) regarding disaster prevention activities such as "activities to protect people from natural disasters" aiming at education programs open to society, the achievement by Yamauchi (2019) or Shirai and Matsumoto (2019) who associated disaster prevention in the historical study of school history or regional history are some of the major accomplishments. In addition to the above, Kitazaki (2020) has developed the lesson program for disaster prevention from the perspective, not of the local residents of disaster sites but the visitors to the site; various proposals for disaster prevention education in social studies have been made from multiple perspectives.

However, these studies are proposals for classes in one of the school types, elementary, junior high or high school, and do not position different types or levels of disaster prevention education according to each school type. Although it goes without saying that each of the proposed lessons is excellent, considering that disaster prevention education is implemented from elementary school to high school, the next step is to consider how to incorporate these developed lesson practices into the growth process of students. If similar levels or types of disaster prevention education are repeated from elementary to high school, children's interest in disaster prevention will wane, and they will become bored with the content of the classes. If this happens, the unified education program of disaster prevention for elementary to high school will become a mere skeleton, losing its focus and the sense of urgency, and may not be put into practice in students' daily lives. A similar program called "comprehensive learning time" has been attempted in the past where elementary to high school students were expected to learn the theme of the environment through a series of field research activities, but it ended up in the repetition of similar survey activities, to which one high school teacher pointed out that the program lost its focus in the boring repetition of surveys that could not motivate his students. The same mistake must not be made in disaster prevention education.

As mentioned above, the revised Courses of Study clearly increased the number of descriptions of disaster prevention in social studies (including geography and history) textbooks from elementary to high school. Descriptions in the textbook of disaster prevention for elementary schools have been enhanced, and those in junior high and high schools are also more comprehensive than those in previous textbooks. In these circumstances, the challenge lies in maintaining a high level of motivation for disaster prevention topics among students from elementary to high school, especially in classes of social studies and the same or equivalent subjects, geography and history.

Disaster Prevention Education for Students to Grasp as Their Own Issue

Several measures can be considered to address the issue discussed in the previous chapter regarding

maintaining or stimulating higher level of learning motivation among children from elementary to high school. It depends on encouraging students to view the matter of disaster prevention as their "personal matter" at each school level. Onuki (2021) devised a way for students to understand the law as their own matter in his legal education classes. Providing students with the perspective to see something as a "personal matter" to enhance their learning motivation should apply not only in Onuki's legal education but also to the subject of social studies and civic, including geography and history. Therefore, disaster prevention education that can encourage students to see the matter of disaster prevention as "the matters of their own" in social studies education is discussed in this paper.

The same issue regarding how to encourage students to see disaster prevention as their "personal matter" was observed in the previously discussed practical researches on disaster prevention education; thus, many of them attempted to discuss disaster prevention as regional issues in the scope of the community where students live to implement the practice of lesson study. Another issue that requires our attention is the possibility of the disaster prevention topic becoming too minor an issue for students to regard it as an urgent matter concerning the well-being of their own in such areas without disasters for quite some time or in the cases of disaster prevention classes being focused on the same regions from elementary to high school. At the same time, the necessity of disaster prevention is obvious when we discuss the matter on a global scale; there is almost always a disaster in some part of the world. As for the situations in Asia, in addition to the disasters that frequently occur in Japan, such as earthquakes, tsunamis, volcano eruptions, and floods, Asian nations have disasters unfamiliar to us, as pointed out by Ida (2021), including forest fires or mosquito-borne diseases like dengue fever. Providing students with examples of these foreign disasters on a real-time basis should stimulate and renew their motivation for learning by changing the viewpoint on disaster prevention.

The study of disasters and disaster prevention in the world, especially in Asia, will enable students to think about how to protect themselves in their own communities from the common disasters seen in Asia and aid the affected areas. In other words, as shown in Figure 2, students can acquire knowledge about disaster prevention, discuss disasters in other countries and disaster prevention, recognize disasters in other countries as their own affairs to aid. In some cases, this will also help them protect themselves from disasters when traveling or living in a foreign country.

If such learning is done as the assessment of disaster events that occur in foreign countries, it will not be a learning experience of a "personal matter" for students. The following conditions must be met to encourage them to acquire it as a meaningful learning experience of "personal matter" to have a strong awareness of how to protect themselves from disasters.

- To increase knowledge and awareness of disasters and disaster prevention in their own communities, as practiced in previous studies.
- 2) The disaster discussed in classes must be the one occurring in real-time or close to it.
- 3) An information network on disaster prevention has been established through cooperation with schools in Asia.

In addition, such learning experiences should be conducted in junior high school, where students have finished learning about disasters and disaster prevention in their own communities and begun to learn about the situation in the world, and in high school, where students are beginning to feel bored with disaster prevention education in their own communities after finished learning these topics in their elementary and junior high

school lessons. Geography which will be compulsory subject from 2022 in high school is a mandatory subject in high school, and it has a series of classes concerning disaster prevention education associated with the students' living communities; introducing the topic of real-time disasters or disaster prevention practice in Asia to integrate them with the subject would be effective to enhance the learning experience for students.

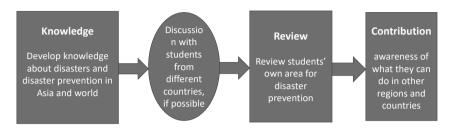


Figure 2. Learning process from knowledge to contribution as for disaster prevention

Conclusion

The contents of the present paper are based on the presentation made in January 2021 at the international symposium, where the topic of collaboration with Asian nations was discussed as well. The achievements of the symposium reflect on the present paper, in which disaster prevention education in Japan was discussed, referring to effective collaborations with Asian nations on disaster prevention to protect ourselves. The proposal for disaster reduction education in this paper is as follows.

The disaster prevention education for elementary to high school should always be devised according to the characteristics of each school type so that students can view the topic as their "personal matter." One of such attempts would be introducing the topic of real-time disasters that occur in the world, especially in Asia, to integrate into the class contents, along with the information regarding disaster prevention measures implemented in these countries, to enhance students' awareness of disasters and disaster prevention. Such content should be suitable for junior high or high school students who have already studied disaster prevention in their own communities and Japan. At the same time, it would be mandatory to establish a system that enables us to obtain relevant information on disasters occurring overseas swiftly.

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