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Teaching geoscience during the pandemic: A conversation with Wonsuh Song

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The pandemic has changed how educators approach their teaching. In this PESSER, we have the pleasure to talk to Dr. Wonsuh Song, a part-time university lecturer from Waseda University in Japan. Wonsuh was one of the invited speakers in the AGU Fall Meeting 2020 session Student Experiences with Remote Learning and Research. She shared her experience in teaching geoscience in Japan during the pandemic as part of the session hosted by the AGU Education Section.

To find out more about the experiences of Earth and Space Science educators around the world, Wonsuh recommends the article "Geoscience activities amid the Covid-19 pandemic – opportunities for cross-discipline learning and knowledge-sharing" by Mazlan Madon. The author discusses educators' experiences in Malaysia during the pandemic. We hope that you enjoy reading the article and the short interview with Wonsuh.

Wonsuh, you have been a geoscience educator based in Japan. Would you like to introduce yourself?

I was born in Los Angeles and grew up in Seoul. I came to Japan about 20 years ago for my PhD research in bio-weathering at Tsukuba University and have been living here ever since. I teach Geography, Earth Science, and related subjects in several universities in Japan, including Waseda University and Nihon University. I am constantly trying to find new ways to teach, and I am having new experiences every day!

What is your experience of teaching geoscience during the pandemic?

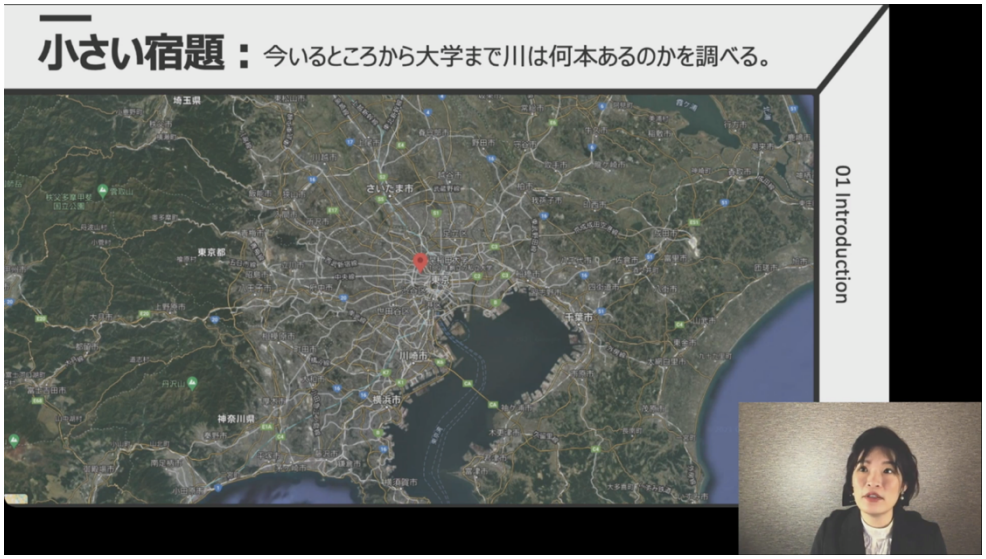
Face-to-face classes are gradually resuming in Japan. Many students want them as they enjoy face-to-face interactions with their teachers and peers. Online lectures cannot compete on this front.

Fieldwork is an important part of studying Earth Sciences. Fieldwork was certainly one of my favorite learning activities when I was an undergraduate student! It is unfortunate that a lot of fieldwork has been canceled during the pandemic. At least my students have found Google Earth an engaging tool for their learning. It of course cannot replace fieldwork, but students do get the opportunity to do some research such as investigating topographic features.

Natural disaster preparedness is an important topic in Japan. Have you included it in your teaching?

Yes, I have. As part of their compulsory education, school children in Japan are taught what they should do in case of disasters. However, not all university students are familiar with the physical environment of their university towns. And some of them may not be able to recall everything they have been taught at school. It is therefore important to teach natural disaster preparedness to university students and make the learning relevant to their needs.

Local physical environment can be a good starting point for teaching natural disaster preparedness. I make sure that my students are aware of the terrain around their homes, and I have asked my students to count the number of rivers as they come to the university from where they live (see the image). It is a very simple task, but many students are surprised by their findings. Comments of “I didn't realize that there are so many rivers around here!” are common reactions from students to the assigned task. Hazard maps are available on government websites, and they are great learning resources. These simple tasks and online resources can be used to ‘set the scene’ for introducing the more advanced topics in Geography and Earth Sciences.



Wonsuh's homework for her students: How many rivers can you find as you come to the university from where you live? (Credit: Wonsuh Song)

The United Nations' Sustainable Development Goals (SDGs) have received a lot of attention in Japan. How can educators use them in their teaching?

The SDGs should be introduced in connection with students' lived experiences, using events happening in their own countries. The SDGs can serve as a context for developing students' critical thinking skills – I think educators should engage students with the many 'inconvenient truths' in the world.

There is scope to introduce more active learning approaches in Japanese universities. I believe that active learning is essential for the changing times ahead. Engaging students with SDGs through active learning may be a good way forward.

The AGU Education Section is keen to engage with geoscience educators and academics around the world. International collaborations have always been very important to geoscience researchers. In your opinion, how can geoscience educators from different cultures and educational systems around the world best engage with together to form an international community?

Having the space to exchange our 'local' experiences as educators is important. I really want to know more about how geoscience educators around the world are overcoming the challenges of teaching during the pandemic. It would be great to have more opportunities, online and offline, for educators to meet and interact with each other. By sharing our experiences, we can get inspiration from each other and grow together as a global community.

Wonsuh can be reached by email at geosong@aoni.waseda.jp.

Reference

Madon, M. (2020). Geoscience activities amid the Covid-19 pandemic – opportunities for cross-discipline learning and knowledge-sharing. Warta Geologi. v. 46, 113-120.