# My Earth science educator story – Young-Shin Park
## What I did, why I did it and what happened

Red Rock in Nevada, USA, August, 2012.

### Beginning my journey as an earth science educator

Ever since I was in high school, I wanted to become a science teacher. I enjoyed teaching, especially science teaching. I liked to study scientific principles and felt very excited when I understood new concepts from science books or teachers. When I was at senior high school in 1986, I took the national university entrance examination. My teacher, Mr. Park, encouraged me to apply for the department of earth science education at Seoul National University (SNU). This is how my journey to be an earth science teacher began.

SNU is a 'national' university so, until 1991, every graduate from the college of education at SNU was supposed to be automatically awarded a teacher certificate and assigned to any public secondary school. However, the Ministry of Education changed the policy. Following the change, every teacher candidate from colleges of education at national or private universities had to take a 'National Teacher Evaluation Examination' (NTEE). This now runs in December every year and the competition rate in science is almost 10:1. This meant that I, as one of graduates from a 'national' university, lost the privilege of becoming a science teacher right after graduating from SNU in 1991. I felt very worried about my science teaching plans since I had to take yet another National test, in which it was very difficult to gain a good score. Did I have to quit my dream of becoming a teacher? Some people in my department prepared for NTEE whilst others continued their studies for masters degrees. What did I do? I did not do anything, but left Korea for the USA. Another journey began for me in Oregon.

### Navigating my journey in 'education' of earth science

I spent my first few years in Oregon without doing anything academic, although I did become a volunteer in the public schools of Corvallis. Later, I had the opportunity to apply to become a classified teacher (a teacher moving from state to state until she/he passes the state curriculum examination) and I worked as a teacher in Oregon for three years. This motivated me strongly to carry out educational research. Working as a teacher in real classrooms made me curious about how teachers teach and how students learn science. Also science education was the only department which accepted my application. I had applied for three different departments, science education, oceanography, and computer science, but I was only accepted by science education, haha. It was destiny!

I undertook my MSc and PhD in science education at Oregon State University and then returned to Korea in 2005. I first worked as a science education researcher at SNU until, in 2008, I obtained the position of assistant professor in the department of earth science education at Chosun University, in the southern part of

the Korean peninsula. In my first two years, I concentrated on providing good quality teaching to preservice teachers in earth science education.

However, it was during the third year of my career as an assistant professor, that I changed direction as an educator to the different, but broader field of science museum education. Although I trained preservice earth science teachers to be professional in the classroom, but there was always great competition to become a teacher in Korea. So, I identified another option for students, to be employed as experts, in 'science museum education'. Since there are increasing numbers of national science centres developing in Korea today, experts in interacting with visitors need to be trained too. The Government is funding the development of public scientific literacy through the informal learning of science, for many reasons, one of which is to equip citizens with the understanding needed to address global issues such as climate change, water shortages, etc. This is how I began to work as an educator, training preservice earth science teachers to become experts in both science museums and science classrooms.

Training science communicators in science centre, Korea, November, 2015.

**Continuing my 'citizen science' journey in earth science**

Students who take science education courses at any university are qualified to work as experts in science museums, since they had gained a teacher certificate when graduating from their college of education. Students with earth science backgrounds can work as science communicators in both natural history museums and science centres. They can also take the test to become a science curator (since one of tests covers earth science, including geology and astronomy).

In addition to teaching earth science education courses at my university, every year I receive funding from the government to run an advanced science communicator training program. Through taking this advanced science communication course, participants visit local science centres to observe exhibits and communicators' interaction with visitors, and to study the planning and development of exhibits. Through this course, they become highly qualified and gain posts in science museums.

I would like to emphasize this point: science teaching for classroom students or for visitors in science museums is not just the delivering of science knowledge, it highlights the importance of this knowledge to everyday life. I try to equip preservice teachers with skills to interact with both students and visitors through teaching about the shifting paradigm of science communication. In the past, scientific knowledge had been the main goal of teaching and learning science. However today, it is the people who make important decisions about scientific issues. From now on, citizen science for the future must focus on preserving the Earth and balancing the Earth's systems.

I hope my students will develop this perspective on science communication from my science education teaching, and I expect them to work as educators with scientists or science communicators in any place where 'science' can be found. This is my responsibility; this is my destiny as an educator. I applaud the science educators of the world since they are bridging science education into scientific literacy. Without educators, this task would be impossible. Well qualified teachers can teach good quality science wherever they teach!

*Young-Shin Park, aged 47, Corvallis, Oregon, USA, December, 2015, parkyoungshin1968@gmail.com*

Participants in the science communicator training course at the Science Centre, Korea.