

Earth science education for Elementary school carried out in collaboration with high schools

*Kazuya Kawakatsu¹

1. Hyogo Prefectural Nishiwaki senior high school

1. Recruitment situation of high school geology faculty

In 1989, when I was a teacher recruitment examination, the recruitment for high school science (earth science) was not being done already, so the Hyogo prefecture teacher recruitment exam was adopted by science (life). This trend is not limited to Hyogo prefecture, and geoscience educators nationwide are pushing a sense of crisis. Earth science education is indispensable in considering problems such as earthquakes, volcanic eruptions, abnormal weather, global warming, etc. In order to increase the number of students of earth science, the following proposal has been made. 1) We should prejudge the importance of geoscience education more actively, 2) We should strongly request that the education committee adopt faculty who specialize in geology, 3) For universities to aim for science teachers Courses on experimental practice should be compulsory. Perhaps everyone understands that learning of earth science is important, but its understanding is not linked to action.

2. Approach to elementary school teachers by the author

Experience in elementary school days is extremely important to nurture junior high and high school science (geography) like. Students who are enthusiastic about high school scientific research have a good dialogue with teacher about nature in elementary school days. Elementary school teachers feel that his field of geography is not sufficiently understood, strong sense of refusal to the field of geography, and that thought reflected in the class. They are like this. 1) I do not know the method of experiments in the field of geography, 2) I can not judge rocks and minerals even if I take them outdoors, 3) I am worried about being asked by children. A young teacher in an elementary school in Hyogo prefecture has no experiences of undergraduate classes because the geology course was not offered in the age of students. So I asked the teachers of the elementary school to know the fun of the field of geology and give lectures and simulated lessons to alleviate the feeling of refusal. Also, in experiments, we do not necessarily ask for correct answers but tell them that there is a chance to learn in case they did not go well. Such requests are frequently received from each municipal board of education committee and each elementary school.

3. Approach to elementary school students by Earth Science Club students of our school

The Earth Science Club of our school was established in 2014 as a result of my assignment and started actively. Currently 60 members are divided into groups of 5 to 6, and we are working hard on group research on a daily basis. They are actively engaged in activities to communicate our achievements to elementary school students as they produce results in research activities that reveal "why" of familiar natural phenomena. Students of our school go to elementary school and regularly conduct science classes. This effort has evolved into activities involving neighborhood city offices, education committees, city councils, and others. We are also carrying out an experimental type laboratory where local elementary school students gather in the elementary school gymnasium, and carry out research activities jointly by releasing the school science room to primary school students. It is an activity not to be based on published experiments but to high school students themselves wondering and to communicate "why" of familiar natural phenomena that they struggled and revealed, so it is easy to teach high school students, Elementary school students who are taught have their eyes shining.

Keywords: refusal to earth science, "it is why", collaboration between high school and elementary school