A trial of training geographical thinking for small children by field workshops

*Yuichi S. Hayakawa^{1,2}, Sahoko Aki², Jennifer Henbest de⁴, kubo takashi⁵, Noriko Kawabata⁵, Takuro Ogura^{3,2}

1. Faculty of Environmental Earth Science, Hokkaido University, 2. Center for Spatial Information Science, The University of Tokyo, 3. Graduate School of Frontier Science, The University of Tokyo, 4. Osaka International School of Kwansei Gakuin, 5. Asahi Town, Toyama Prefecture

Memories related to places are fundamental elements in geographical thinking and spatial recognition. Experiencing various activities in a natural environment is essential for developing children's both physical and mental abilities. However, urban cities often do not fully provide the opportunities for children to play and study under natural environments and generally the education of children is isolated in the urban environment. Developments in geographical thinking of children can be hardly achieved if there remains a gap between the daily lives in an urban environment and continuous stimulation in a natural environment. To enhance the ability of geographical thinking of children, we carried out field workshops with a small group of elementary school students regarding not only geography but art, archaeology, and geology. The interaction among these different disciplines can provide various opportunities for children to think about various materials that are not often found in their daily lives in an urban environment. Among else, the ability of geographical thinking is key for enhancing the knowledge and imagination of things related to places. A small group of elementary school students participated in a short-term training camp to experience various activities, which are based on the approach of the art but also related to geography, geology, and archaeology. It was found that the children's recognition of places and related phenomena was enhanced by the various activities. We will also discuss the further application of similar interdisciplinary approaches for the development and dissemination of geographical thinking and imagination.

Keywords: geographical thinking, field, art, physical