

Collaborative outreach projects with the Integrated Ocean Drilling Program

Tadashi Yoshizawa[1]; Keita Umetsu[2]; Atsushi Miyashita[3]; Hideki Masago[4]

[1] CDEX, JAMSTEC; [2] AESTO; [3] Seikei High; [4] JAMSTEC/CDEX

<http://www.jamstec.go.jp/chikyu/>

This presentation is focused on introducing method and activities on earth science outreach in collaboration with the Integrated Ocean Drilling Program (IODP, www.iodp.org).

IODP is an international marine research drilling program dedicated to advancing scientific understanding of Earth by monitoring and sampling seafloor environments. IODP has started since October 2003 funded jointly by Japan and U.S. with Europe, China and Korea. IODP now has 21 member countries. Through multiple scientific drilling platforms (Chikyu, JOIDES Resolution and Mission Specific Platform), preeminent scientists explore IODP principal themes: the deep biosphere, environmental change, and solid earth cycles. As of 2008, 15 expeditions have been implemented at area such as seismogenic zone in Nankai Trough and Arctic Ocean.

Needless to say, it is essential to fulfill accountability to the public in order to implement such an international project required large amount of contributions from member countries. IODP have actively carried out outreach projects by releasing research achievement and progress through news announcements, media collaborations and public relations activities program-widely. On the other hand, it is also important to encourage scientists and future generations to join IODP and support for many years to come. In this regard, we'd say we are facing in the same direction between the effort to promote IODP and the effort for public understanding of earth sciences by collaborating with research and educational activities.

Since IODP launched, program office in Japan such as the Japan Drilling Earth Science Consortium (J-DESC, www.j-desc.org) and Japan Agency for Marine-Earth and Science Technology (JAMSTEC, www.jamstec.go.jp/chikyu/) have been organizing outreach projects such as the school for graduate student to learn about process and analysis of core sample which are acquired by the scientific drilling, and workshop on board the drill ship in collaboration with high school, university or science museum.

Especially, the fieldwork-type project 'Sand for Students' (www.sand4students.net) has been carried out featuring the 'sand' which is one of the most familiar geological materials for everyone. In a fieldwork, jointly with school teacher and student go to nearby rivers to collect and observe sand. They learn about classification of various types of minerals and collect bulk samples. They also collect heavy minerals by panning for further analysis. Their observations and the sand data from a detailed analysis at the laboratory such as mineralogical and age determination have been registered on the common database. Experiences such an outdoor activities by touching real materials, should be extremely important in geological understanding. The project also gives students can chance to experience the pleasures, and difficulties, of fieldwork researches as same as for scientists during seagoing IODP expeditions. Furthermore, in connection with the core sample, the sand data students themselves collect is scientifically important for analysis of the sedimentary source at the drill site.

We have held fieldworks and acquired sand data from 14 rivers and coast in collaboration with 11 schools since 2005. Not only future participants but supporters to help fieldwork as a lecturer or data analyst are broadly welcomed. Furthermore, we are anticipating using real drilling samples acquired by the Chikyu for student and broadening the project globally, especially in Asian region as an opportunity of international and educational collaboration.

The effort for outreach activities organized only by one science program as IODP is limited in fact. It is essential and the most important method for us how collaborate with university, research institute, local government, science museum or educational institution and encourage them to use IODP research as a opportunity and source of outreach and educational materials.