THE INQUIRE PROJECT: SCIENCE EDUCATION IN EUROPEAN BOTANIC GARDENS USING IBSE

C. BONOMI, M. BATTISTOTTI, S. DORIGOTTI, M. GALETTO Museo delle Scienze, Via Calepina 14, 38122 Trento bonomi@mtsn.tn.it

The science education community agrees that education based on IBSE methods (Inquiry Based Science Education) are more effective (European Commission, 2007; Osborne & Dillon 2008). However for various reasons, this type of teaching is not practiced in most European classrooms. INQUIRE offers a oneyear practically based IBSE teacher training course that will reach out to hundreds of teachers, and in turn thousands of pupils, in 11 European countries. The course is run through 14 Botanic Gardens and Natural History Museums - some of Europe's most inspirational cultural and learning institutions. These places act as catalysts, training and supporting teachers and educators to develop their proficiency in IBSE and become reflective practitioners (Morris & Barker 2003; Dillon et al., 2004; Elster, 2007). The training locations, the practical nature of the course, the support offered and the subject content will encourage teachers and educators to enroll in INQUIRE courses and try out IBSE in their everyday teaching. Biodiversity loss and climate change are the major global issues of the 21st century and many teachers are looking for innovative ways to tackle these subjects. INQUIRE will introduce teachers to institutions where children can carry out 'real' investigations and see science in action. The project website will encourage the uptake of IBSE on other EU websites and highlight the results of practitioner research in IBSE. Specific Project outputs include 11 courses run twice in 11 European countries reaching out to 550 educators and thousands of pupils, 3 course manuals to guide and support course participants and organisers: the main Inquire course manual, a train the trainers manual and a practitioners manual on evaluation. A dedicated website will provide a forum for discussion and make available on line all project resources. It is expected that many follow up INQUIRE courses will be organised by other training institutions throughout Europe. All this documents will be available to European and Italian botanic gardens that should use them and put them into the education practice.

Acknowledgements. INQUIRE if funded by the European Union under the 7th Framework Programme Capacities; contract N. SIS-CT-2010-266616.

- European Commission, 2007. Science Education NOW: A renewed Pedagogy for the Future of Europe. EUR22845 Office for Official Publications of the European Communities, Luxembourg.
- Osborne J., Dillon J., 2008. Science Education in Europe: Critical Reflections. A report to the Nuffield Foundation. London, Nuffield Foundation.
- Morris A., Barker P., 2003. Developing a typology for practice-based research in education: project specification. NERF working paper 7.1.
- Dillon J., Grace M., Oulton C., 2004. Some critical reflections on the teaching of controversial issues in science education, Development Education Journal, 10: 3-6
- Elster D., 2007. Lehrerprofessionalisierung in Lerngemeinschaften Erste Ergebnisse der qualitativen Evaluation im Projekt Biologie im Kontext (bik). In Lemmermöhle D., Rothgangel M., Bögeholz S., Hasselhorn M., Waterman R. (Ed.) Professionell Lehrern - Erfolgreich Lernen. Waxman. Münster.

INDICE