

Project Outcome Report:

NSF Award #1033934, “A Framework for Assessing Environmental Literacy”

This grant supported the development of a comprehensive, research-based framework for assessing environmental literacy. The leadership team, under the auspices of the North American Association for Environmental Education (NAAEE), included leaders from the only two large-scale assessments of environmental literacy that have been used in the U.S. to date: Programme for International Student Assessment (PISA) and the National Environmental Literacy Assessment (NELA). Their work brought together, for the first time, experts in research, assessment, and evaluation from the fields of science education, environmental education, and related social science fields, and thereby accessed and built the framework on the literature and the insights of many disciplines.

The project leaders analyzed PISA and NELA and used a multi-disciplinary search and review of the literature to prepare a draft framework. A diverse array of invited experts critiqued that draft and provided suggestions for revision both at a workshop and through written reviews. Then, the leaders produced a final Environmental Literacy Framework that was published online at www.NAAEE.net/Framework.

The Framework was rolled out at a nationally advertised event held at the National Press Club in Washington, DC, and aired live via the internet to a diverse audience of 507 assessment specialists, funding and policy-making agencies, and organizations working to develop assessments and achieve environmental literacy. The success of this event was due in large part to our partners at the National Oceanic and Atmospheric Administration and the National Marine Sanctuary Foundation who supplemented NSF funding, and the cooperation of experts who participated in the workshop and their professional organizations.

Additional dissemination occurred at five national and international conferences (e.g., World Environmental Education Congress, North American Association for Environmental Education, Chinese Society for Environmental Education), via articles and blogs written for professional publications (e.g. EdWeek, Journal of Education for Sustainable Development), and through announcements and newsletters distributed by NAAEE.

Products of this project – including the publication *Developing a Framework for Assessing Environmental Literacy*, materials from the dissemination event, a list of all those involved, and the project evaluation report – may be found at www.NAAEE.net/Framework. These products have already contributed to three different efforts:

1. The development of a position paper for the PISA Governing Board by the PISA Environmental Literacy Expert Group, proposing to build a framework to assess Environmental Literacy for the PISA 2015 assessment.
2. Development of state-level and multi-state/regional plans to measure the environmental literacy of graduating seniors as part of state Environmental Literacy Plans.
3. The development of a baseline assessment of environmental literacy by the Taiwan government, as a first step in implementing their new federal environmental education act.

In addition to these specific products, this project has made several broader contributions to science and society:

* The new Framework for assessing environmental literacy provides a foundation for measuring the extent to which we are enabling all learners to acquire the knowledge, skills, dispositions, and behaviors vital for competently making decisions about local, regional, national and global issues. It provides federal agencies, professional organizations, and corporations that are investing in initiatives to enhance environmental literacy, guidance in developing assessments for gauging progress in transforming our preK-12 education system to achieve that end.

* The Framework also provides a basis for promoting consistency within and across assessments so professionals working in this arena can make cross-comparisons and accumulate evidence to develop understandings regarding the extent to which environmental literacy exists among different groups and is influenced by educational policies and practices.

* The project, as shown by the evaluation, has enabled experts in many different fields – from science and environmental education to social studies education, human dimensions research, and businesses that create large-scale assessments – to enhance their understanding of environmental literacy and build their confidence and ability to communicate and collaborate across and among disciplines. (The project evaluation was supported in part by The Ohio State University, OSU Extension.)

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