

Can self-directed learning resources increase individuals' evaluation competency? Insights from case studies of environmental educators' experiences with the web-based "My Environmental Education Evaluation Resource Assistant" or "MEERA."

Dr. Michaela Zint
Patrick Dowd
Dr. Beth Covitt
Univ. of Michigan

Andrew Burnett
Kathleen MacKinnon
US Environmental
Protection Agency

Dr. Barbara McDonald
Dr. Safiya Samman
US Forest Service





What is MEERA?

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polls

What type of educator are you?

- K-12
- College/University
- Nonformal
- Other
- Not an educator
- [vote](#)

[Polls](#) | [Results](#)

Welcome to MEERA

Document Actions

by Michaela Zint & Nick Montgomery — last modified 2007-11-12 06:43



- [Plan An EE Evaluation](#)
- [Sample EE Evaluations](#)
- [Links & Resources](#)

Do you need help evaluating your environmental education program? You have come to the right place. "**My Environmental Education Evaluation Resource Assistant**" (**MEERA**) is an online "evaluation consultant" created to assist you with your evaluation needs. It will point you to resources that will be helpful in evaluating your environmental education program.

MEERA can help you:

- [Learn more about evaluation and its importance >>>](#)
- [Move through the evaluation process step-by-step, with tips and pitfalls to avoid >>>](#)
- [Obtain suggestions on important evaluation topics, for example, on how to find, select, and work with an external evaluator >>>](#)
- [Search through example EE evaluations and obtain detailed insights about these evaluations >>>](#)
- [Find additional evaluation resources such as "how-to" guides and links to evaluation tools >>>](#)
- [Identify and learn about related professional development opportunities >>>](#)




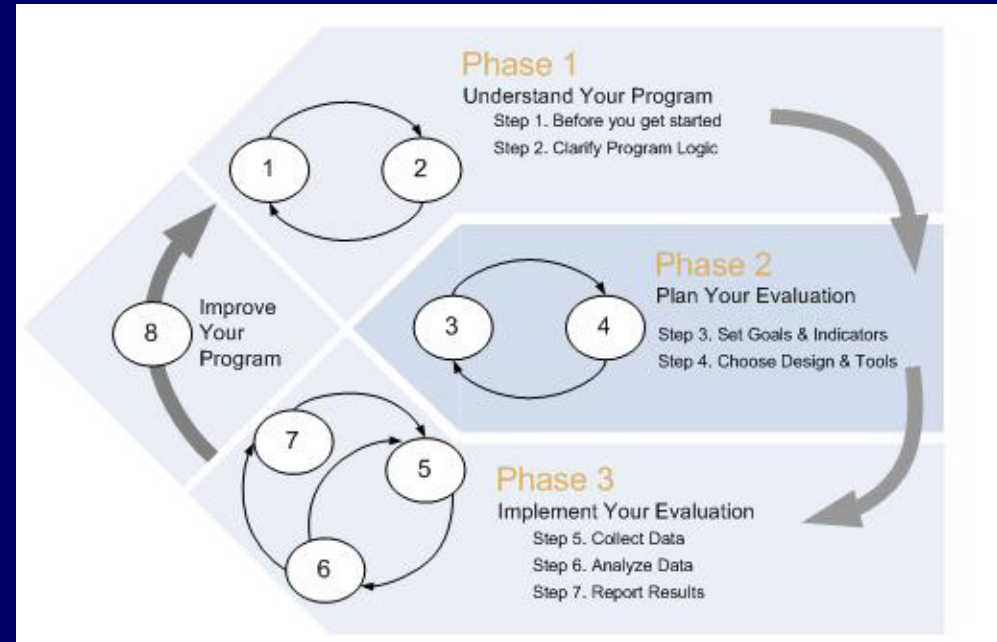
Dr. Michaela Zint, Project Leader

Free
web-based
evaluation resource
designed to support the
evaluation efforts
of environmental educators

www.meera.snre.umich.edu

MEERA's Current Features:

- Step by step guidance 
- Suggestions on related topics
- Sample EE evaluations
- Reviews of additional resources



How is MEERA unique?

- Based on research
- Builds on existing resources
- Selective
- Suitable for different levels of evaluation expertise
- Personal consultant

Where do I find external evaluators?

While there are many ways to find external evaluators, the process typically involves either advertising a request for proposals or identifying and approaching specific evaluators. In addition to local, national, and online sources of potential evaluators, you may want to browse the [sample MEERA evaluations](#) and contact authors of evaluations that are similar to what you are looking for.

WANTED

Sample Requests for Proposals

Please contact [Dr. Michaela Zint](#) with your sample requests for proposals.

[The Program Manager's Guide to Evaluation, Chapter 4: How do you Hire and Manage an Outside Evaluator?](#)

US Department of Health and Human Services, Administration for Children and Families

Beginner Intermediate

This document outlines the basic steps for finding an evaluator and lists resources for finding evaluators.

Evaluator Directories

Several organizations maintain online, searchable directories of evaluators. Please note that MEERA does not endorse any specific evaluator; it is your responsibility to contact the consultants or firms to decide whether or not they will meet your needs.

[The Registry of Outcome Evaluators](#) U.S. Department of Education, What Works Clearinghouse

Search by geographic region, individual/organization, target populations, or content area (including EE).

[Find an Evaluator](#) American Evaluation Association

Browse all listings or search by name, keyword, or geographic area.



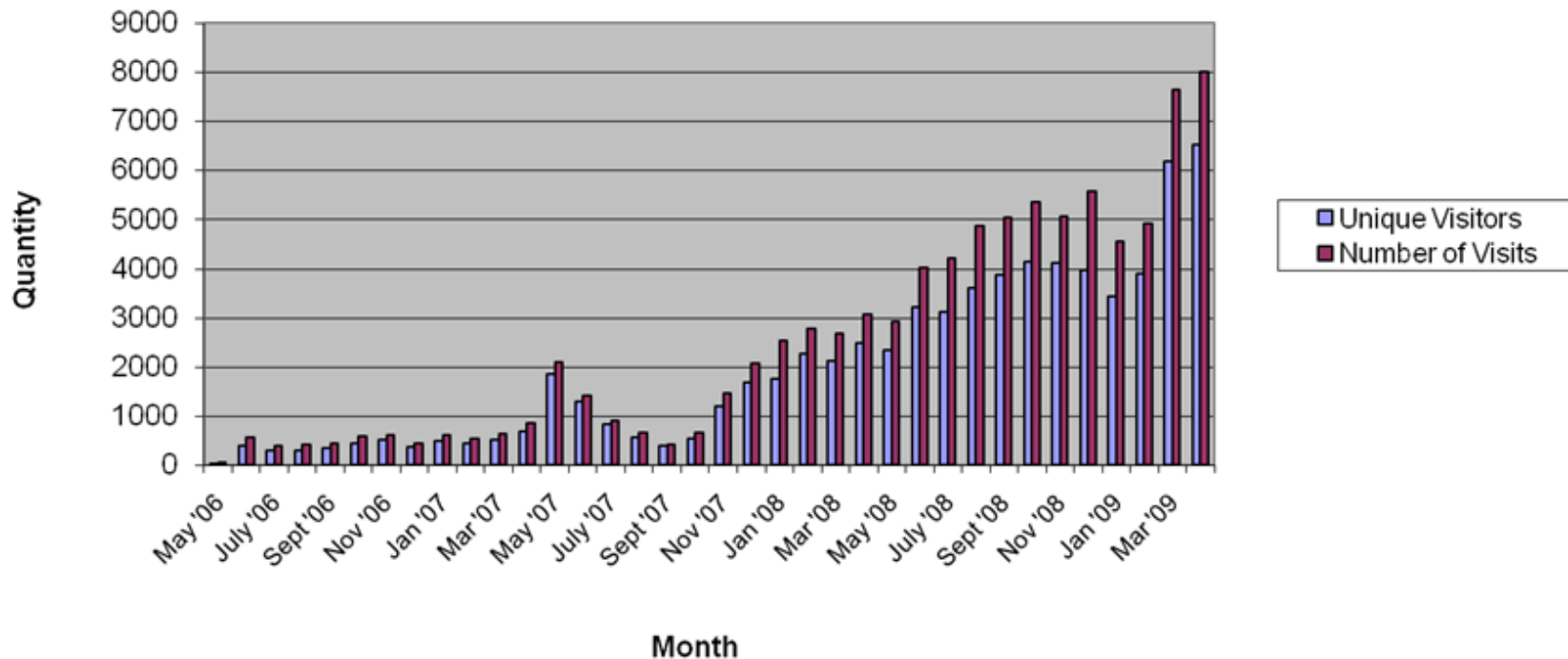
TIP

Contact Evaluators at Local Universities

Many universities have faculty members who specialize in program evaluation and/or an extension office with an evaluation specialist on staff. These experts may be available for contract work or may be able to recommend other evaluators in the area. Alternatively, if the time frame for completing your evaluation is flexible, you might consider hiring a graduate student to conduct your evaluation as his or her thesis project. This option is typically less expensive than hiring a professional. If you go this route, be sure to ask about

About MEERA's Visitors:

MEERA Monthly History Visit Summary
(May '06 - Apr '09)



April '09: 7991 visits, 6509 unique visitors, 80 countries

Can MEERA support the evaluation effort of environmental educators?

Case studies of 8 US environmental educators

Motivated novice evaluators

Questionnaires & focus group

Monitored exchanges between participants/researchers

Used rubrics to review quality of evaluation outputs

Multiple reviewers

Nvivo- Qualitative Software Package

Participants' use and satisfaction with MEERA

Participants used MEERA as intended:

Steps, embedded links, sample evaluations

Drew on partners, colleagues, researchers

Grade: A (n=4), B+ (n=2)

How did participants benefit?

6 of 8 completed first evaluation (to date) including quality evaluation outputs!

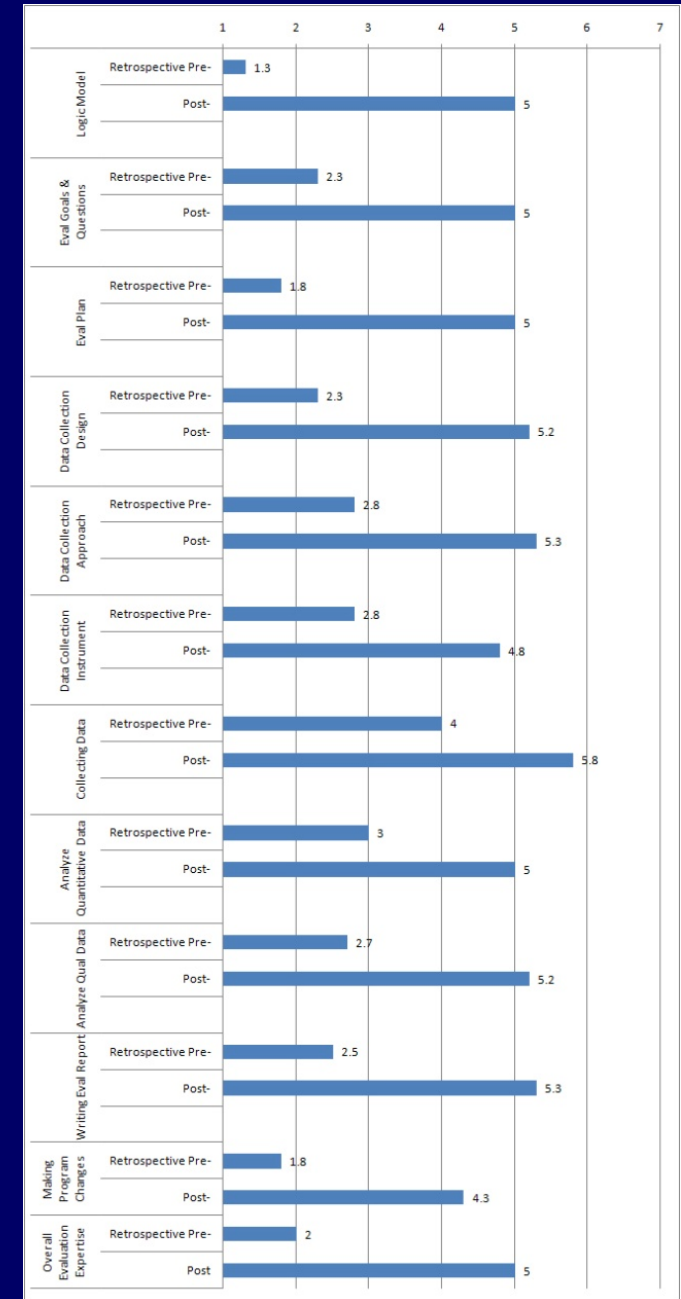
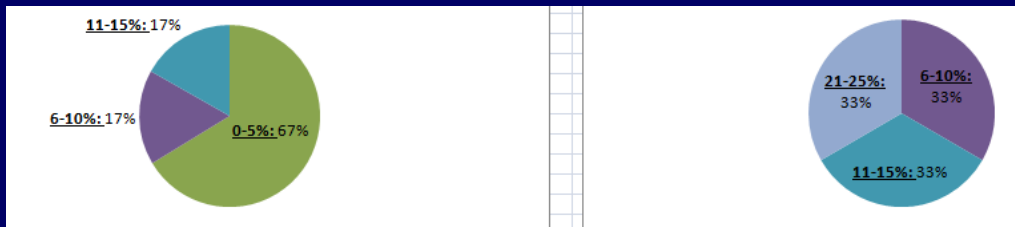
All plan program improvements:

- Clarify roles of different employees and partners**
- Change content to better meet audiences' needs**

How did participants benefit?

All increased in competency, confidence and commitment to evaluation 

Time allocated to evaluation before and after evaluation process: 



Participants' challenges:

Time constraints

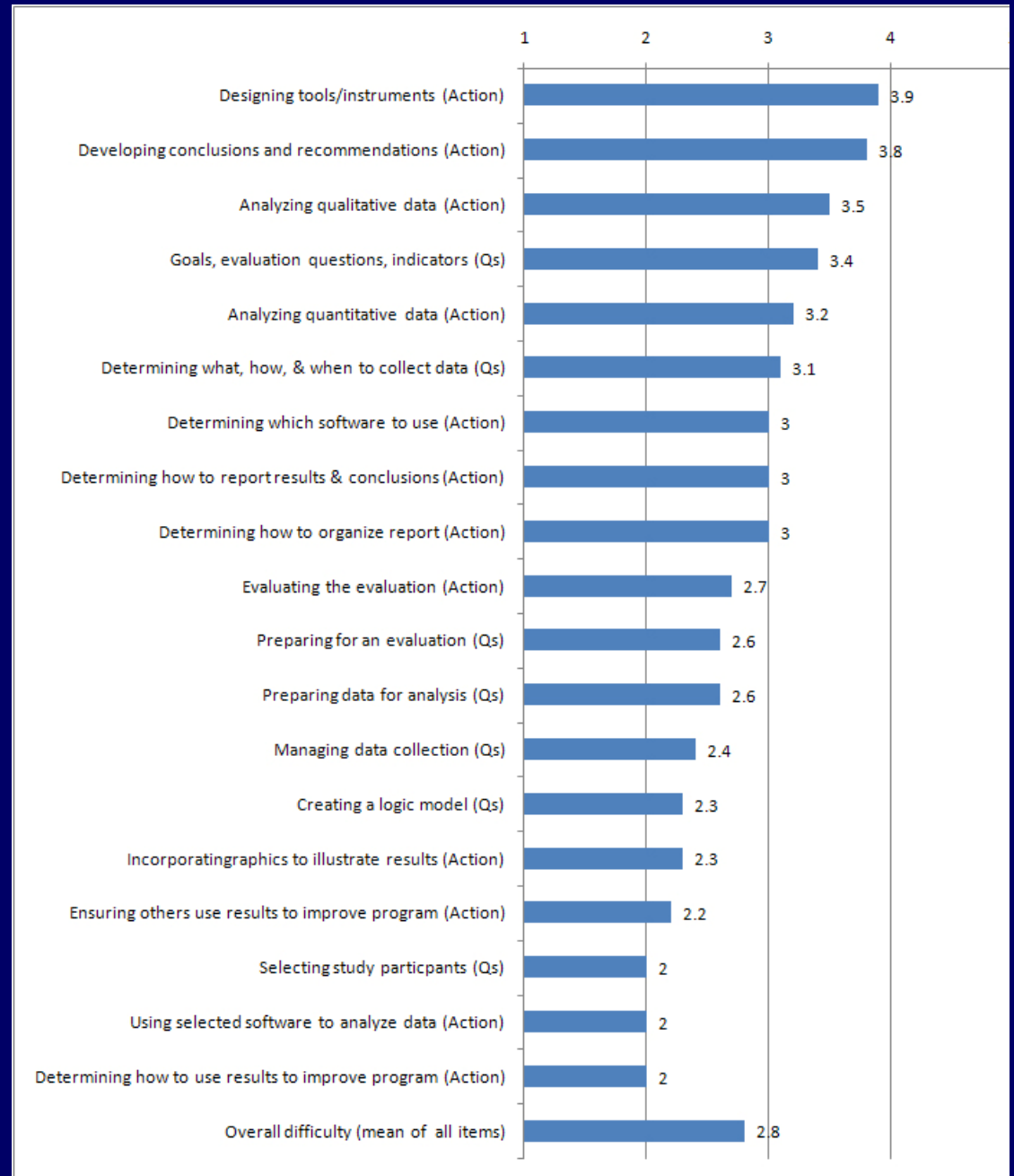
Feeling overwhelmed

Desire for interaction,
tailored expert assistance

Some difficulties with
select tasks



mean=2.8, 1=SD to 7=SA



Conclusions Based on Case Studies

MEERA can increase environmental educators' evaluation competency and thus, serve as a model for how to support self-directed learning about evaluation

The benefits derived from self-directed learning resources can be enhanced by collaborating with partners, colleagues, and external evaluators, particularly as related to evaluation tasks with which individuals are likely to struggle more so than others.

Thank You!

Partners:

Drew Burnett, Kathleen MacKinnon, U.S. Environmental Protection Agency

Barbara McDonald, Safiya Samman US Forest Service

Steering Committee Members

Phase I

Elaine Andrews

Jack Chin

Gabriel Della-Piana

Deron Davis

M. Lynette Fleming

Rosanne W. Fortner

Peter Gordon

Joe Heimlich

Susan Jacobson

Deborah Simmons

Richard Wilke

Phase II

Debbie Chavez

Brian Day

Gabriel Della-Piana

Rosanne W. Fortner

Don Howlett

Christos Michalopoulos

Jim Oftedal

Jennifer O'Leary

Sharon Waltrip

Arthur Wendel

Students/Alumni

Brian Barch

Beth Covitt

Patrick Dowd

Jason Duvall

Amy Higgs

Nick Montgomery

Jennifer Sellers

Kim Wolske

Computer Consultants

Autumn Caines

Hsin-Yun Hsieh

Paul Nowak

Ken Wasetis

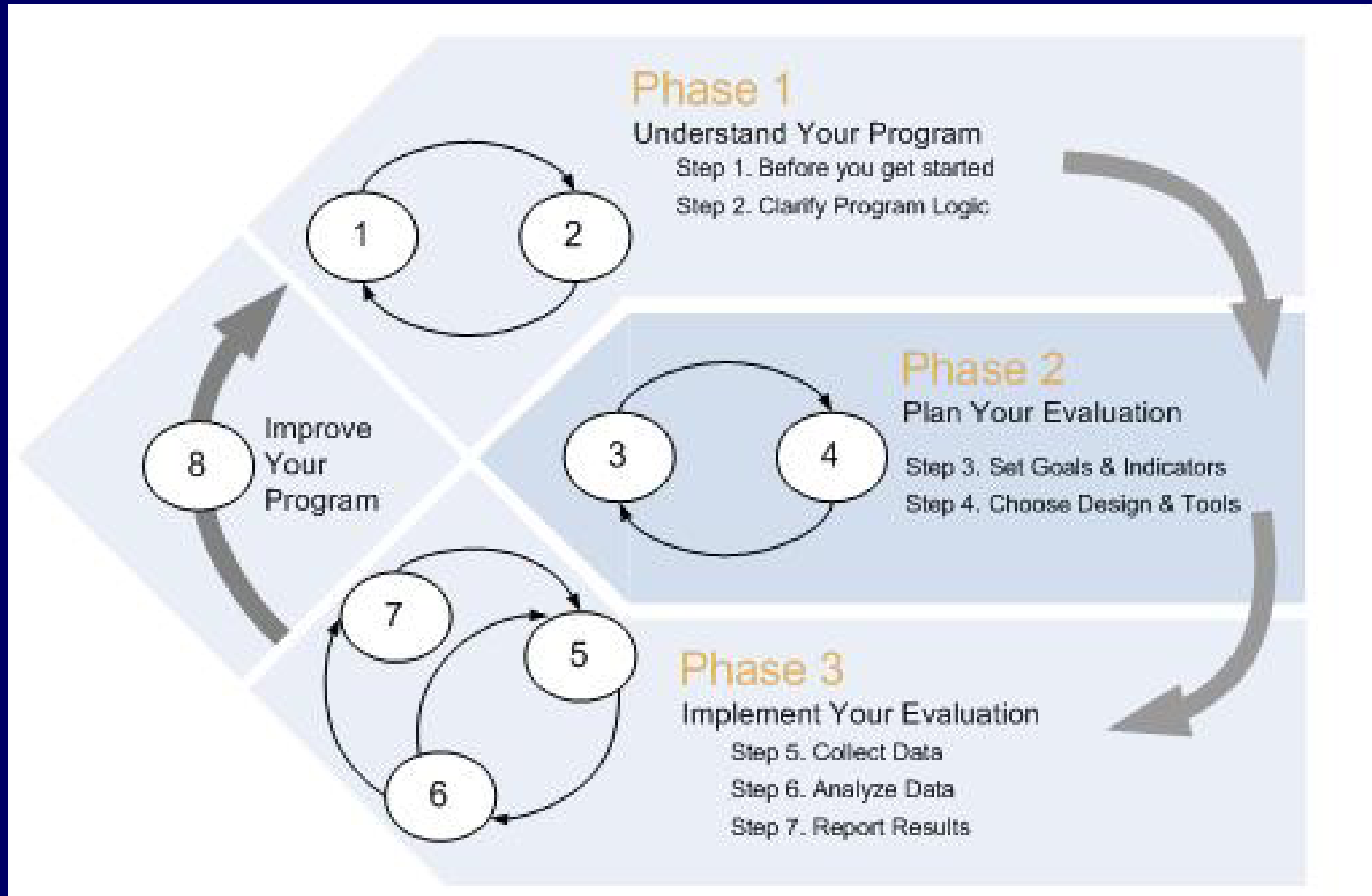
Focus Group Participants & Reviewers

MEERA Evaluation Participants

www.meera.snre.umich.edu

Michaela Zint, zintmich@umich.edu

MEERA's 8 Step Evaluation Process



MEERA's Searchable Database of EE Program Evaluations 1

Search EE Evaluation Profiles

This page enables you to find MEERA's environmental education evaluation profiles. You can browse all evaluation profiles by clicking the "browse" button. You can also search for specific text or by selecting specific program or evaluation search terms.

Search Text

For a text search, enter your search term(s) here. Combine multiple search terms with AND or OR. The text in this field will be matched with the evaluation's title, comments, authors, journal and publisher.

Program Search Terms

Setting:

- Formal
- Nonformal
- Informal

Type:

- Lesson/Unit/Curriculum
- Issue Investigation/Service Learning
- Field Trip/Guided Tour
- Interpretive Exhibits
- Club/Interest Group
- Camp/Residential Program
- Workshop/Course
- Outdoor Adventure/Recreation
- Out of School/After School
- Mass Media Campaigns

Topic:

- Agriculture/Gardening
- Animals/Plants/Wildlife
- Biodiversity
- Career Choices
- Climate Change
- Ecology/Ecosystems
- Energy
- Earth Sciences
- Human Health
- Pollution
- Recycling/Waste Reduction
- Sustainability

Audience:

- Preschool
- Primary School
- Secondary School
- College/Continuing Education
- Teachers
- Nonformal Educators
- Other Professionals
- Youth/Community Groups
- Adult/Community Groups
- Other Groups/Individuals
- Underserved/Minority Groups

WANTED

Evaluation Reports

MEERA currently offers a few sample evaluation profiles. Help us add more by sharing your evaluation reports. As additional examples and funding become available, more reports and profiles will be added.

Evaluation Search Terms

Type:

- Evaluation Plan
- Needs Assessment
- Process/Implementation
- Outcome
- Impact

Evaluator:

- Internal
- External

Outputs:

- Participants
- Activity Implementation
- Satisfaction

Outcomes:

- Knowledge
- Attitudes/Values
- Skills
- Behaviors

Impacts:

- Environment
- Education
- Health

Approach:

- Quantitative
- Qualitative

Data Collection:

- Existing Data/Documents
- Focus Groups
- Interviews
- Logs/Journals/Student Work
- Observations/Visitor Tracking
- Standardized Tests
- Questionnaires/Surveys

Design:

- Pretest
- Posttest
- Retrospective Pretest
- Retention/Follow-up Test
- Comparison/Control Groups
- Multiple Treatment Groups
- Random Assignment

Analysis:

- Quantitative Data**
 - Descriptive Statistics
 - Inferential Statistics
- Qualitative Data**
 - Key Incident Analysis
 - Content Analysis w/ Categorization of Responses
 - Content Analysis w/ Descriptive Statistics
 - Content Analysis w/ Inferential Statistics

NOTE: This search was modeled after the Harvard Family Research Project's [Out-of-School Time Program Research and Evaluation Database](#)

Evaluation Summary

Evaluation of the Chesapeake Bay Foundation's Conservation Education Programs

Summary

The Chesapeake Bay Foundation (CBF) asked the authors to conduct an evaluation of five youth and two teacher education programs. The main goal of the evaluation was to determine to what extent these programs influence participants' level of environmentally responsible behaviors. In light of this goal, data were collected on variables that have been linked to environmentally responsible behaviors. These variables included participants' environmental sensitivity, perceived knowledge of ecology/issues/action strategies, personal responsibility, perceived skill, and intention to act. Information about teachers' perceived barriers to teaching about the Bay was also obtained. Based on the evaluation's results, CBF decided to adapt each program to target a smaller number of specific ERB characteristics instead of attempting to influence all ERB characteristics through each one of its programs. CBF also focused on encouraging teachers to use multiple activities and programs which build on one another. Last, more effort was put into helping teachers implement the curriculum as intended and reducing their barriers to teaching about the Bay.

Detailed Profile

Available.

Full Report

The citation for this published evaluation is:
Zint, M., Kraemer, A., Northway, H., & Lim, M. (2002). Evaluation of the Chesapeake Bay Foundation's conservation education programs. *Conservation Biology*, 16(3): 641-649.

Instruments

Questions used to collect evaluation data are described in the article.

Program Search Terms

Setting:

Formal
Nonformal

Type:

Lesson/Unit/Curriculum
Issue Investigation/Service Learning
Field Trip/Guided Tour
Workshop/Course

Topic:

Animals/Plants/Wildlife
Biodiversity
Ecology/Ecosystems
Earth Sciences
Pollution

Audience:

Secondary School
Teachers

Evaluation Search Terms

Type:

Process/Implementation
Outcome

Evaluator:

External

Outputs:

Activity Implementation
Satisfaction

Outcomes:

Knowledge
Attitudes/Values
Skills
Behaviors

Impacts:

Approach:

Quantitative

Data Collection:

Logs/Journals/Student Work
Questionnaires/Surveys

Design:

Pretest
Posttest
Retrospective Pretest
Retention/Follow-up Test
Comparison/Control Group

Analysis:

Descriptive Statistics
Inferential Statistics

MEERA's Searchable Database of EE Program Evaluations 2

Evaluation Profile

Program Profile	
Program Description:	The Chesapeake Bay Foundation (CBF) offers a variety of conservation education programs. This evaluation focused on the following four year (2006-2009) programs:
Program Goals:	The mission of CBF who will value it and who will act like for all include the evaluation of education program environmentally reducing the perceived barriers primary and secondary teaching about the Chesapeake Bay.
Program Funding:	In 2006, CBF income was from these sources: 66% 20% membership, 7% investment income, 4% education, and 4% other.
Program Links:	http://www.cbf.org
Evaluation Profile	<p>Evaluation Goals & Questions:</p> <p>The overall goal of the evaluation was to improve CBF programs by determining the extent to which existing programs promote ERB among youths and reduce teachers' perceived barriers to teaching about the Bay.</p> <p>To determine the extent to which CBF educational programs influence:</p> <ul style="list-style-type: none"> • ERB characteristics • teachers' perceived barriers to teaching <p>Evaluation Methods:</p> <p>Pre and post surveys were used to assess the ERB characteristics described above in youths participating in the one- and three-day field trips, the two-week field trips, and the school restoration project. A follow-up survey, investigating the same issues, was sent to participants 6 months after each program. The same one, post, and follow-up survey was used for all programs.</p> <p>Instruments:</p> <p>The measures used to collect data from evaluation participants are described in the article's methods section. Instruments can be obtained from the:</p> <p>How were results used?</p> <p>Instead of one of its smaller in-encouraging build on implementation teaching</p> <p>Evaluation Cost:</p> <p>For the 1 Photocopy Telephone Travel (\$3,400) Faculty member</p> <p>Evaluation Insights:</p> <p>What worked well?</p> <ul style="list-style-type: none"> - Working as a team, consisting of a former CBF educator, university faculty member, and graduate students. - Using the Hungerford and Volk behavior model to help guide the evaluation. - Adapting measures from previous studies that were shown to be valid and reliable. - Triangulation of some data, i.e., gathering data from current year students and their teachers as well as from past students and their teachers. - Involving CBF staff members from the beginning to the end, helping to ensure use of the evaluation's results. CBF staff members also provided information that helped to identify and contact evaluation participants, provided important information about the content of their programs, helped to administer some of the surveys, and incorporated evaluation results into their staff professional development programs. <p>What were the important evaluation "lessons learned"?</p> <ul style="list-style-type: none"> - Teachers who took their students on field trips were easy to convince to include their students in the evaluation. They were invested in the program. Teachers who were trained in the OCC curriculum as part of required professional development were less willing to include their students. <p>What could have been done differently?</p> <ul style="list-style-type: none"> - Organizations interested in assessing longitudinal effects should track contact information. For example, CBF did not track contact information for youths who had participated in field trips in the past, making it difficult to identify and thus, survey these individuals as part of this evaluation.

Program

- What was evaluated?

Evaluation

- How were results used?

- What did it cost?

- What were evaluation "lessons learned"?

How did participants benefit?

All increased in competency and confidence

“Without MEERA, would not have planned for 'staff time and in-house costs.’”
Samantha

“[MEERA] was useful in helping me to explain to a board member why a question they wanted to ask was inappropriate for this type of survey.” ... I learned that past questionnaires I was involved with were poorly designed”
Jen

“I now feel more confidence in my ability to evaluate the effectiveness of my various educational programs ... I feel more comfortable in developing program goals and objectives and in evaluating and improving outreach programs and educational materials”

Samantha

How did participants benefit?

All will use what they learned in other contexts:

“I am sure I will be in a position to write an evaluation report again, and what I learned here will be directly applicable. Some of the key concepts (consider the audience, report layout, simple graphics) will be useful to keep in mind anytime I am preparing a report for stakeholders, whether it’s in an evaluation context or not. With a background of writing primarily for scientists, it’s helpful to have guidance on reporting to more diverse audiences “

Julie