Collaborative Environmental Education
Evaluation Learning Community

Session #6
March 19, 2004
Noon to 4:30 pm
The San Francisco Foundation

Developments since the last meeting

Since we last met on December 12, 2003, the draft regional framework (logic model) has been presented at several forums and revised based on the feedback received from participants at those forums. Using this framework and the work conducted at previous sessions of the learning community, an evaluation matrix was developed that identifies major evaluation questions based on key strategies and phases within the framework. This evaluation matrix then suggests four different evaluation design options. The steering committee met on February 18 to review the work and to develop the agenda for the March 19 session. In discussing the current status of the project, the steering committee recommends that one additional, optional session be held in late April.

Agenda

Goal for Session: Agree on steps to ensure usefulness of the collaborative’s work, particularly in bolstering the evaluation capacity of EE organizations

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<tr>
<th>TOPIC</th>
<th>DETAILS</th>
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<td>Welcome &amp; Intros</td>
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<td>Intros</td>
<td>Round-robin</td>
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<tr>
<td>Presentation of Regional Framework and Evaluation Designs</td>
<td>PowerPoint Presentation</td>
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<td>Our work to date</td>
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<tr>
<td>Develop recommendations to the EE and Funding Communities</td>
<td>Small group work</td>
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<td>BREAK</td>
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<td>Working Groups</td>
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<tr>
<td>Identify key issues to ensure usefulness of Collaborative’s work</td>
<td>Split up into working groups: Evaluation Tool-kit Development; Longer-term Evaluation Capacity-building; Dissemination of Collaborative’s Model</td>
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<td>Small group discussion and agreement on actions</td>
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<td>Report back to large group</td>
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<td>Closing</td>
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<tr>
<td>Next steps, evaluation, closing activity</td>
<td>Final meeting in late April to review evaluation tools</td>
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A Regional Framework: Toward Environmentally-Responsible Behavior Through Environmental Education

Working together since June 2003, learning community participants have crafted a regional framework that would guide the Bay Area EE community – as individual organizations as well as collectively – in aligning efforts to become more effective and thereby, lead to a greater cumulative impact. While not every organization would be expected to carry out all aspects of the framework, the intent is that each organization would see its role in the context of this larger collective framework.

The regional framework diagrams relationships among program elements using this format:

<table>
<thead>
<tr>
<th>PROGRAM</th>
<th>MEASURES</th>
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<tr>
<td>Desired Results</td>
<td>Community Indicators</td>
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<td>Motivating Conditions and Causes</td>
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<tr>
<td>Strategies</td>
<td>Performance Measures</td>
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<tr>
<td>Activities</td>
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**What will be the Impact?** *(Desired Results)*
Working individually and collectively, Bay Area EE organizations seek to increase voluntary environmentally-responsible behavior over the long-term (7-10 years out).

**Which Targeted Behaviors?** *(Community Indicators inform Desired Results)*
Knowing that identification of specific behavioral outcomes is necessary to promote environmentally-responsible behavior, regional sustainability indicators would be used to inform the choice of behavior categories to target. For instance, if air quality indicators were improving but water quality indicators were getting worse, it would make sense to allocate more environmental education resources toward changing behaviors that impact water quality. These indicators would influence the design and delivery of EE strategies and activities.

**What Needs to Change?** *(Motivating Conditions and Causes)*
In order to achieve the desired impact, these key underlying conditions would be addressed:

- EE is currently perceived in a narrow sense:
  - doesn't resonate among the broad public
  - isn't culturally relevant
  - lacks broadly understood definition
- Lack of collaboration...There is currently not enough connection across organizations/programs to provide a continuum of experiences
- Lack of professional development in best practices for effective EE
- Lack of research and practice that ties EE to academic standards
- Not enough focus in EE on behavior change toward responsible environmental behavior

**What is the Context?** *(Community Indicators that inform Strategies)*
The Bay Area is endowed with the following resources (inputs) that can be tapped:

- A population of 6.7 million residents that is diverse along socio-economic as well as racial/ethnic dimensions
- Over 200 organizations that provide EE programs
- Funding (albeit not enough!) to support EE
- Knowledge, based on local experience and national research, to implement EE effectively
- A region of extraordinary natural and cultural resources

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1 Adapted from Harvard Family Research Project, “Learning from Logic Models in Out-of-School Time”
A Regional Framework: Toward Environmentally-Responsible Behavior Through Environmental Education

What Needs to Change
- Lack of collaboration. Not enough connection across organizations/programs to provide a continuum of experiences
- Lack of professional development in best practices for effective EE
- Lack of research and practice that ties EE to academic standards
- Not enough focus in EE on behavior change toward responsible environmental behavior

What Needs to Happen?
- **Essential Strategies**
  - Implement best EE practices
  - Effect behavioral changes
  - Disseminate core EE message
- **Amplifying Strategies**
  - Increase cultural competence
  - Promote collaboration/partnerships
  - Increase evaluation capacity

What Will Result?
- Greater organizational capacity of EE orgs
- Better program linkages among EE orgs
- Sustained networking among EE orgs to share knowledge and influence
- Bigger influence on agenda of policy makers and/or the general public

What Will Be the Impact?
- Consistently higher quality EE program delivery
- Increased adherence to a common set of priorities among EE providers
- More culturally competent EE organizations that reach a more diverse population
- Continuous improvement in environmentally-responsible behavior on a regional level

What Targeted Behaviors?
- Suggested by sustainability indicators

Community-level elements
- Implemented by individual organizations

Organization-level elements
- EE seen as too narrow...
  - doesn’t resonate among broad public
  - not culturally relevant
  - lacks broadly understood definition

What’s the Context?
- People
- Organizations
- Funding
- Knowledge
- Setting
**What Needs to Happen? (Strategies and Activities)**

Given this situation, a set of essential and amplifying strategies needs to be implemented. Essential strategies are aimed at individual-level behavior change. These include:

- Identify and implement a common set of best practices for effective environmental education – the adoption of program standards and organizational competencies will result in greater influence on personal attitudes and confidence about environmentally-responsible behavior
- Strengthen EE providers’ ability to effect specific behavioral outcomes – the incorporation of social marketing approaches will help remove barriers and provide incentives to action
- Develop and disseminate core EE messages that promote greater public understanding and support for EE and influence social norms on environmentally-responsible behaviors.

Amplifying strategies are organization-level strategies that, if implemented well, will scale up the impact of the essential strategies. These include:

- Increase cultural competence of EE organizations, which would enable EE providers to more effectively reach a larger segment of the diverse population and therefore, inform and influence greater behavior change
- Promote collaboration among EE providers and with community partners (schools, after-school programs, community-based organizations, etc.), which would deepen and broaden the reach of environmental education
- Increase evaluation capacity among EE providers, which would facilitate greater learning, reflection and improvement in practice.

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**Six Critical Pathways: Strategies to Outcomes**

<table>
<thead>
<tr>
<th>Essential Strategies</th>
<th>Amplifying Strategies</th>
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<tr>
<td>Implement Best EE Practices</td>
<td>Greater organizational capacity</td>
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<tr>
<td>Target Specific Behaviors</td>
<td>Consistently higher quality EE delivery</td>
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<tr>
<td>Disseminate Core EE messages</td>
<td>Better EE program linkages</td>
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<tr>
<td>Increase Cultural Competence</td>
<td>Increased adherence to common priorities</td>
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<tr>
<td>Promote Collaboration/Partnerships</td>
<td>Shared knowledge and influence</td>
</tr>
<tr>
<td>Increase Evaluation Capacity</td>
<td>Greater reach to more diverse audiences</td>
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<tr>
<td></td>
<td>Bigger influence on policy agenda</td>
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<td></td>
<td>Continuous improvement in env. behavior</td>
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</table>

Each of these strategies has attributes that characterize high-quality implementation. Learning community members developed standards for the strategies considered to be the most influential among the essential and amplifying strategies. For instance, effective EE practice, be it program delivery or professional development, should have the following attributes:\n
- Learner-Oriented (programs are age-appropriate and support life-long learning)
- Promotes Wonder (inquiry and discovery-based activities)
- Connects with Place/Community (programs are relevant to learner’s life and culture, encourage civic engagement)
- Action-Oriented (Activities are hands-on, address real problems, build confidence and hope)
- Takes a Holistic Approach (Programs are integrated, interdisciplinary, support systems thinking)

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2 drawn from various sources, including: NAAEE Guidelines for Excellence, Center for Ecoliteracy, State Education and Environment Roundtable, learning community participants’ own experience
Organizations that are culturally competent\(^3\) should have the following qualities:

- **Value Diversity** by articulating a commitment to respecting difference
- **Capacity for Self-Assessment** that indicates a willingness to reflect on own actions
- **Consciousness of Cultural Dynamics** that demonstrates recognition of factors that affect interactions among different cultural groups
- **Institutionalization of Cultural Knowledge** by integrating more appropriate approaches and practices into operations and programs
- **Adaptability to Diversity** that allows versatility to fit program operations and activities into different cultural situations

Effective collaboration\(^4\) and partnerships call for the following traits:

- **Shared Purpose** so that there is mutual benefit from joint work
- **Mutual Respect, Understanding and Trust** so that members see each other’s value and can build meaningful relationships
- **Appropriate Composition** that includes a cross-section of stakeholders that confers legitimacy
- **Communication** that is open and enables frequent sharing of information
- **Self-Governance** where members accept clearly-defined roles and responsibilities
- **Synergistic climate** that promotes exchange/reciprocity of services and supports.

This set of essential and amplifying strategies would be implemented by individual environmental education organizations independently as well as in coordinated efforts.

**What will Result? (Performance Measures)**

With effective implementation of the essential strategies, one can expect to see certain results over time:

- Greater organizational capacity of EE organizations and higher quality program delivery through alignment with best practices
- Some increase in environmentally-responsible behavior among program participants
- Some increase in public awareness of EE

Moreover, with the effective implementation of the amplifying strategies, even greater results can be expected:

- Better program linkages among EE organizations through collaboration
- Consistently higher quality EE program delivery through collaboration and evaluation
- Sustained networking among organizations to increase knowledge sharing and influence
- Increased adherence to a common set of priorities among community of EE providers
- Bigger influence on the agenda of policy makers and/or the general public
- More culturally competent EE organizations that allow more equitable access to natural, cultural and educational resources
- Continuous improvement in environmentally-responsible behavior on a regional level

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\(^3\) Based on “How is Cultural Competence Integrated in Education?” Mark A. King, Anthony Sims & David Osher (http://cecp.air.org/cultural/Q_integrated.htm), and learning participants’ own experience

\(^4\) Drawn from Collaboration: What Makes it Work? (Amherst Wilder Foundation), How to Make Collaboration Work (David Straus), and learning participants’ own experience
Using the regional framework to develop evaluation questions

Given the regional framework, certain categories of evaluation questions are appropriate for different sections. When focusing on the “context” section of the framework, questions typically focus on relationships and capacity: These questions examine the social, economic and/or political aspects of the situation that most shaped ability to do the intended work. An example would be, “What kind of relationships do EE providers have with target populations?”

Questions about “implementation” usually focus on quality and quantity of products and services. These questions look at how the strategies and activities were implemented - what happened and why. An example would be, “To what extent did programs reach target populations?”

“Outcomes” questions emphasize effectiveness, satisfaction and magnitude of change. These questions get at assessing progress toward desired results. What have we learned from doing this kind of work in our region that will improve our future program planning and delivery? An example would be, “What behavioral changes were observed in the target populations?”

“Impact” questions examine what lasting changes in the community result from the programs.

Correlating these categories of evaluation questions with the essential and amplifying strategies suggests an evaluation matrix and associated key evaluation questions (see next page). The learning community has identified evaluation questions that would fit primarily in the cells highlighted in blue. All of these evaluation questions could apply at the individual organization level as well as on the collective level.
### Evaluation questions by strategy and framework phase

<table>
<thead>
<tr>
<th>Key Criteria</th>
<th>Capacity</th>
<th>Quality of Implementation</th>
<th>Outcomes (Effectiveness, Magnitude, Satisfaction)</th>
<th>Community Impact</th>
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</thead>
<tbody>
<tr>
<td>(Used to set standards and measures for program strategies)</td>
<td>What shaped our ability to do the work (individually and collectively)?</td>
<td>How well were strategies implemented?</td>
<td>What resulted from our collective work?</td>
<td>What are the lasting effects of our actions on community and environment?</td>
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#### ESSENTIAL STRATEGIES (pathways to individual-level behavior change)

| Identify and implement a common set of best practices for effective EE | Learner-centered; promotes wonder; connects with place/ community; action-oriented, holistic approach | What is EE orgs’ organizational current capacity to implement best practices for effective EE? | To what extent do EE orgs meet program standards for effective EE practice? | How effectively are EE programs influencing behaviors? | How effectively are EE programs contributing toward better quality of life? |
| Strengthen EE providers’ ability to effect specific behavioral outcomes | (See social marketing principles, www.cbsm.com) | What is EE orgs’ current capacity to address specific behavioral outcomes? | To what extent are EE orgs addressing specific behavioral outcomes? | To what extent has learners’ intention to act in environmentally-responsible ways improved? |
| Develop/ disseminate core EE message | What is EE orgs’ current capacity to communicate about EE? | How well have EE orgs promoted public understanding of EE? | To what extent has public support for EE increased? |

#### AMPLIFYING STRATEGIES (pathways to organizational-level behavior change that improve effects of essential strategies)

| Increase cultural competence of EE providers | Value diversity; capacity for self-assessment; consciousness of dynamics of cultural interactions; institutionalization of cultural knowledge, adapt to diversity | What is EE orgs’ current cultural competence? | To what extent are EE programs reaching diverse audiences? | To what extent do diverse audience segments act in environmentally-responsible ways? |
| Promote collaboration among EE providers; Reach out/engage community partners | Shared purpose; mutual respect, understanding and trust; appropriate composition; communication; self-governance; exchange/reciprocity | What is EE orgs’ current capacity for collaboration/partnership? | To what extent are EE programs linking to amplify impact? | To what extent has learners’ EE experience become more continuous? |
| Increase capacity for evaluation | What is EE orgs’ current capacity for evaluation and assessment? | To what extent have EE orgs used evaluation for learning and program improvement? | | |
**Four Evaluation Design Options to Consider**

Taking into account this evaluation questions matrix and the current data collection and evaluation practices and needs as expressed by learning community participants, several approaches can be taken to increase the evaluation capacity of the Bay Area EE community. By the end of the learning community, a prototype “do-it-yourself” evaluation toolkit will be developed and made accessible for use by environmental education providers in the region and beyond.

The other three approaches are proposed as options for longer-term evaluation capacity building that would require additional funding resources.

<table>
<thead>
<tr>
<th>Approach</th>
<th>Features (italics indicate optional features)</th>
<th>Implications/Benefits/Downsides</th>
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</table>
| "Do it Yourself"          | • Web-accessible Toolkit based on evaluation questions matrix – EE orgs can access and use tools by themselves (see next page for sample tools)  
  • Technical assistance/ implementation grants  
  • Trainings in basic evaluation techniques | • Need to find home  
  • Does little to promote coordination among organizations  
  • No aggregation of data |
| Key Questions             | • Focus on the key questions that emerged from collaborative (the blue cells in the matrix)  
  • Develop indicators based on key criteria  
  • Organizations voluntarily collect data on the criteria | • Addresses users’ interests  
  • Mostly measures outcomes (and therefore provides little feedback to organizations on program capacity and implementation) |
| Population Impact         | • Track a sample of EE program participants  
  • Use Ecological Footprint to measure change over time  
  • Interview/focus groups to learn what contributed to behavior change | • Participant-focused  
  • Can be difficult to follow participants over time  
  • Relies on one tool  
  • Doesn’t directly address program capacity and implementation |
| Theory-testing Approach   | • Inventory EE programs by behavior outcome (use Bay Area Alliance Sustainability indicators to define categories of behaviors)  
  • Organize clusters of organizations/ participants by category of behavior outcome to implement framework strategies  
  • Evaluate capacity, implementation of essential and amplifying strategies  
  • Using case studies and interviews, draw out lessons for program improvement that would be useful to other EE programs  
  • Based on lessons, organize cadre of “critical friends” who would be trained to observe EE programs and offer technical advice to each others’ organizations | • Links specific behaviors to program implementation  
  • Yields comprehensive information across regional framework (capacity to implementation to outcomes)  
  • Emphasis on continued learning through collaboration  
  • Clusters’ focus on one behavior category might be too narrow  
  • High costs (time and money) |
## The “Do-it-Yourself” Evaluation Toolkit
### Sample Tools

<table>
<thead>
<tr>
<th>Identify and implement a common set of best practices for effective EE</th>
<th>Capacity</th>
<th>Quality of Implementation</th>
<th>Outcomes (Effectiveness, Magnitude, Satisfaction)</th>
<th>Community Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellence in Environmental Education: Guidelines for Learning (K-12 ), (NAEEE); Organization Assessment Tool (OAT), (NEEAP); Benchmarking Best Practices in Environmental Education, LaFrance &amp; Associates</td>
<td>Environmental Education Materials: Guidelines for Excellence, (NAEEE); Yosemite National Institutes Observation Protocol, Yosemite National Institutes; Teacher Focus Group and Students Focus Group Questions and Interview Guide, Gareth Thomson, Canadian Parks and Wilderness Society; and Jean Hoffman, Sierra Club of Canada, BC Chapter</td>
<td>Primary Attitude Scale (Grades K-2) and Intermediate Attitude Scale (Grades 3-6), National Association for Humane and Environmental Education and Western Institute for Research and Evaluation; CO-SEED Project Student Survey, (PEEC); The Secondary School Report: A Final Report on the Development, Pilot Testing, Validation, and Field Testing of The Secondary School Environmental Literacy Assessment Instrument, Marcinkowski, T. and L. Rehrig</td>
<td>Bay Area Alliance Sustainability indicators; Ecological footprint (regional)</td>
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| Develop/disseminate core EE message | The National Center for Cultural Competence (Georgetown University Center for Child and Human Development) “Guide to Planning and Implementing Cultural Competence Organizational Self-Assessment” [http://www.georgetown.edu/research/guccd/nccc/docs/ncccorqselfassess.pdf](http://www.georgetown.edu/research/guccd/nccc/docs/ncccorqselfassess.pdf) |  | NEETF / Roper Starch National Report Card on Environmental Attitudes, Knowledge and Behavior, NEETF/Roper annual survey |  |


| Promote collaboration among EE providers; Reach out/engage community partners | WK Kellogg Foundation Evaluation Handbook, The Kellogg Foundation |  |  |  |

| Increase capacity for evaluation |  |  |  |  |