

EEN Forum 2009, 6/8/2009, 2:15 p.m.

## **Session 2: Evaluations and Environmental Education: Challenges and Successes Program**

Speakers:

Kathy McGlaulin

Kathleen MacKinnon

Judy Braus

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### **Kathleen MacKinnon**

EPA office of environmental education: created by congress in 1990... pretty small program... receive 9 million dollars and years... provide resources

- Couple of major programs
  - Grant program
    - Three million dollars a year
    - Since 1992 funded grants
    - Most grants are small, mostly year long projects
    - Require all grantees submit a logic model and they include an evaluation plan
    - Because projects are small... limited amount of funds for the evaluation
  - Grant educator program
    - Five year program
    - Receives a bit more money
    - Training program
    - Also submit logic models
    - External evaluators works with the partners to help them with that process
    - Much larger
- **Why do we do evaluation**
  - Required by law
  - Congress requires
  - We do think it matters... sometimes struggle how to apply it
  - Want to improve activities over time
- How do we do evaluation
  - Project report
  - Try to use evaluation results that come out of the projects
  - Try to see if programs are on target
- How these evaluation have evolved
  - More sophisticated now
  - Before just looking at accountability: did they do what they said they were going to do
  - Now looking at impact
- **What are some of the challenges**
  - Hard to access environmental impact
  - Really looking at impact on what educators are learning so that is a challenge

- Many in the grantee community do not have expertise the evaluation: trying to help with their website that has evaluation tools
- Don't have sufficient resources to do evaluation... would like to do more and look more and do analysis but that is a huge task and don't have the resources to do that

### **Kathy McGlaulin**

- What is their program: Project Learning Tree
  - High quality PreK-12 EE curriculum materials
  - Created in the '70s
  - Need high quality materials
  - Need to get them out to teachers
  - Need a delivery system: created an implementation model that is still in place today... teachers who use this materials must attend a professional development experience to receive the material
- Hire third party professional evaluators
- PLT's environmental education goals
  - Awareness→knowledge→challenge→responsible action
  - To try to help teach students critical thinking on environmental issues: how to think now what to think
- PLT program evaluation
  - Over 30 studies conducted: curriculum materials, professional development, teacher use, student impact
- **Evaluation Limitations**
  - Issue complexity
  - No direct conclusions
  - Non-linear relationships: hard to find connection of how performed on a test
  - How to define and measure "success"
    - Demand to prove that we work: to get funding
- **What do we know? Results of their evaluations**
  - Education materials
    - Studies done from teachers
    - 93% rated excellent or very good
    - 95% feel format is "teacher friendly"
    - 77% say curriculum aligns to state standards
  - Workshop Satisfaction
    - Survey instrument at end
    - Surveys of use of past participants
    - Participants view activities as relevant (73%)
    - Activities are practical or very practical (76%)
    - Facilitators were knowledgeable and meet their needs as an education
  - Educator Use
    - surveys of people who attended a workshop and follow up: 7 months later, years later
    - A lot of them are conducting the activities
    - Not using a lot

- Using some
    - Most educators use 3-6 activities per year
    - 75% conducted PLT activities
    - Use in science classes but also with language, arts, math, and social studies
  - Student Achievement
    - Use pre-test and post-test
    - Students how statistically significant knowledge gain
    - Increase in student self assessment
  - **What is missing?**
    - Longitudinal studies
    - Workshop model evaluation: comparative analysis between workshop 1 or two days or university course
      - Different is use, student understanding
    - Pre-service program evaluation: how do you track once leave college or high school
    - Lack financial and personnel resources
  - Finding: PLT works

**Judy:** Evaluation, Education, and Audubon  
National Audubon Society

- National Audubon Society
  - Protect birds, other wildlife, and biodiversity
  - Overall strategy: how do we engage people in conservation in all level sin society
  - Long history of working in conservation (100 years)
  - Focus on birds but also biodiversity and then the people influence
  - Education and outreach is big thing that they do
  - 26 state offices
  - Number of national education programs and regional initiatives
  - Three big things: inspire, learn, act
  - Integrated conservation work: science, education, public policy
- **Why we evaluate**
  - To improve programs and practices
  - To increase effectiveness (what working and why?)
  - To fulfill funding requirements
  - To influence decisions makers
  - To promote Audubon and our partners as learning organizations
  - To learn how to sustain success and replicate effective models
- Evaluation questions
  - How education and social marketing help achieve and sustain conservation goals in short and long term
  - How to best measure conservation behaviors and the link to conservation action
  - How time spent in the environment influence conservation stewardship and action
- Diversity/urban initiative: from the ground up and see if we engage people of diverse audiences
- How do we measure success? How do evaluate the effectiveness of technology?

- **Evaluation challenges**
  - Very few longitudinal studies (hard to measure long term change and a connection to conservation)
  - Not enough funding
  - Not enough capacity
- Together Green
  - New program in partnership with Toyota
  - Working to engage people in conservation
  - Grants, fellowship program, volunteer event, website
  - This is a large grant: 20 million; 5 year commitment, evaluation: built in from the start
  - We did have enough money to hire a team of evaluators
  - Three major goals: habitat, water, and energy
- Conservation Education Toolkit
  - Partnership with NAS, FWS, Disney Animal Kingdom, etc and more
  - What are all the ways we engage people
  - Information, education, social marketing, advocacy, etc
  - Environmental education: awareness to action
  - Pulling together the info on what we know works about behavior change
  - Planning tool are linked to the open standards
  - Goals, audience, strategy, approach, and how going to measure and learn
  - Challenges
    - Lack of case studies with evaluation components (many do not measure their impact)
    - Contradictory research about what works
    - Hard to isolate the social strategies (education, social marketing, communication)
    - Long term strategies are really difficult

**Connie:** Program Evaluation in Education and the Environment

- Program level rather than project level
- Program evaluation why it matters to the national science foundation
- Education is building the capacity for the country to do research
- Funding opportunities. NSF has a new climate change education program
- Previously what it had was a set of projects that defined its portfolio and now going to have specific program
- Climate Change Education Project
  - Include programs across NSF
  - Proposed projects in the pipeline and look to see if it can fund those particular projects
  - NSF receives about 20,000 proposals a year and funds good ideas
  - Fund about 10,000-11,000 of those proposals
- Why Evaluation Matters
  - Expert Judgment: advisory committees, committee of visitors, third party evaluation (conducted for high profile programs by the National academies)
  - Social science based judgments

- Gives it a sense of how supporting research and education that is supporting its community
- Get information on the assessment of our programs accomplishments and outcomes and use this information for multiple needs: to improve program, to respond to OMB
- Research and evaluation on education science and engineering program: way to get funding, way to get help on evaluation... opportunity for evaluators
- Funding Mechanisms
  - Grant
  - Procurement contract: where program officers and evaluation specialist work to develop a statement of work or work specification
  - Interagency agreement
- Types of evaluations they do
  - Expert judgment, social science based judgment