

Best Practices for **Field Days**

**2005 Report of Outcomes
and Impacts**

***Making an Impact with
Environmental Field Days:
Workshops for Organizers
and Presenters***



UNIVERSITY OF MINNESOTA
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Introduction

Initiated in 2002 by members of the Environmental Science Education (ESE) Area of Expertise, *Best Practices for Field Days* (BPFDD) is a University of Minnesota Extension Service professional development program for the people involved in field days. It involves learning how to design and deliver educational events that apply six research-based practices to maximize the educational impact of these events—

- centering the event around a single theme,
- assessing audience before the event,
- planning the setting for effective education,
- using appropriate teaching methods,
- developing and implementing regular evaluation, and
- integrating marketing.

A variety of products and services encompass the program: technical articles, a curriculum & planning tools that can be purchased online, customized workshops and in-depth evaluations of events.

Through maximizing the impact of field days for the 10 thousand+ students who participate annually, the BPFDD program seeks to increase the educational return on thousands of volunteer hours and public dollars invested each year in these events. Program impacts include: a) collaboration, more economical, efficient & effective field day programs, b) creating an “interest pipeline” for youth to explore careers in natural resources, science & technology, c) increasing citizen environmental literacy and abilities to enact natural resource and environmental protection & enhancement through programs that reach young people.

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Making an Impact with Environmental Field Days: Workshops for Organizers and Presenters

In 2005, the University of Minnesota Extension Service ESE contracted with the Duluth Hartley Nature Center to provide 5 statewide workshops to train field day organizers and presenters to use the MN Environmental Literacy Scope and Sequence, national and state education standards as a foundation for planning and teaching programs based on research-based education practice. Through spending efficiencies, ESE was able to add a sixth workshop site:

- **6/7 Grand Rapids** North Central Research and Outreach Center
- **6/9 Minneapolis** Bell Museum of Natural History
- **8/18 Rochester** University Center Rochester Heintz Center
- **8/23 Crookston** U of MN Crookston Sahlstrom Conference Center
- **9/8 Duluth** Hartley Nature Center
- **11/15 Morris** West Central Research, Outreach and Extension Center

The workshops served **111 field day organizers and presenters** from Minnesota, Wisconsin and South Dakota. The Minnesota Department of Natural Resources, Minnesota Association of Soil and Water Conservation Districts, North American Association for Environmental Education and American Association for the Advancement of Science all provided in-kind staff and resources to ensure the success of the workshops.

Workshop Evaluation

At the conclusion of each workshop, participants filled out a 2-page adaptation of the Extension evaluation template, which asked them about their perceptions of skills gained and plans to use what they learned in planning future field days.

Ninety-nine percent of workshop participants agreed or strongly agreed that the workshop met their expectations, materials were appropriate, and enough networking time was provided. One participant noted “The content in this workshop is applicable in all areas of education, how exciting! I really appreciate the "Standards" and "Best Practices" compilations!”

Ninety percent of participants reported moderate to high levels of knowledge and skills gained during the workshop. They expressed highest gains in workshop focus areas of developing a theme and connecting with academic standards and the MN Environmental Literacy Scope & Sequence. Participants claimed to learn skills from all of the workshop resources—the BPF

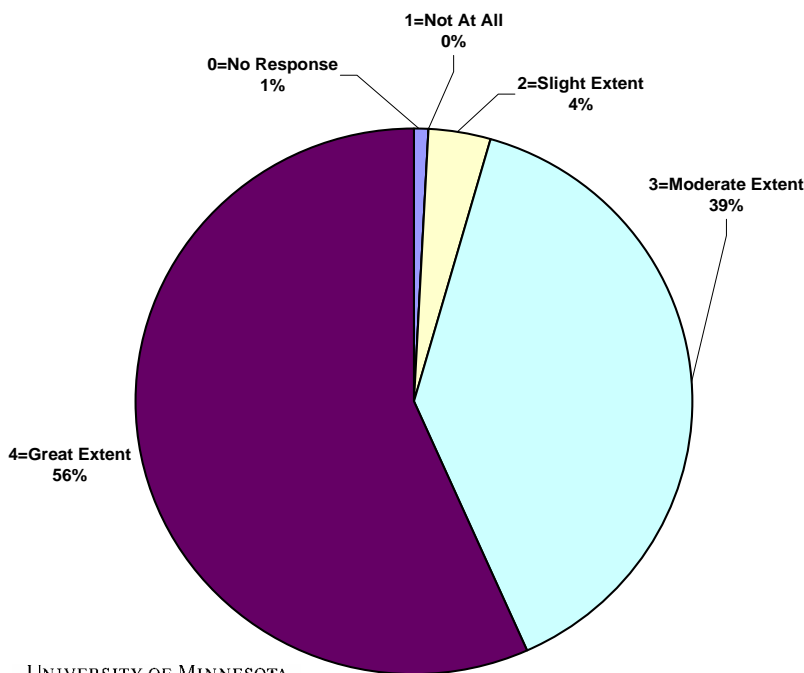
guidebook, instructor presentations and visuals, worksheets, and interactions/activities with other participants.

Ninety-five percent of participants reported moderate to high agreement that they would use skills learned during the workshop. They suggested using the skills/knowledge in a range of applications from formal classroom teaching to revising old and planning new field days. One participant explained “This has given me a good basis for tying everything together so my field day keeps a focus...grabs and holds interest of audience.” Another said “It gave me the notion that integrating field days into standards is not such a daunting task.”

Post-Workshop Evaluation

In February 2006, 3 to 8 months after attendance, ESE asked workshop participants to complete an online follow-up survey of their use/plans to use knowledge and skills gained at the workshop. Fifty-six percent of participants (n=63), including attendees of all six workshops, took part in the survey.

To what extent will you use the skills you learned during this workshop??



Have you taken part in organizing or presenting at a field day since attending the Raise the Impact of Your Field Days workshop?

Response	Percentage	Number
Yes I have taken part in organizing or presenting at a field day.	40.6%	26
No, but I am organizing or planning to present at a field day in the next 1-3 months.	14.1%	9
No, but I am organizing or planning to present at a field day in the next 4-12 months.	23.4%	15
No, and I have no current plans to organize or present at a field day.	21.9%	14

Forty percent of respondents reported taking part in organizing or presenting at a field day since the workshop. An additional thirty-seven percent planned to take part in field days in the next 1-12 months. These field days are located across Minnesota—International Falls to Lac Qui Parle—including the White Earth Reservation. Respondents suggested they would educate over 30,000 PK-12 students (often 3-6th grade) and adults at these events.

To what extent have you used skills learned at the Raise the Impact of Your Field Days workshop to organize or present at field days?

participate in field days (n=45) reported using workshop resources to a slight, moderate or great extent. Sixty-eight percent of participants noted using the BPDF guidebook to a slight or moderate extent. Around fifty percent used the academic standards and Environmental Literacy Scope and Sequence to a slight or moderate extent. One participant responded “I use the worksheets to help narrow down themes, topics, and to make sure I am addressing the education standards.” Others shared the resources with colleagues, referenced them when planning programs, and used them to open doors to schools and classrooms.

Workshop focus	Extent to which participants have used skills				Response Total
	Great	Moderate	Slight	Not at All	
Developing and using a theme	31%	31%	33%	4%	45
Understanding audiences	22%	49%	24%	4%	45
Creating a setting	7%	47%	36%	11%	45
Developing Evaluations	7%	31%	47%	16%	45
Developing field day activities	22%	38%	33%	7%	45
Connecting program to education standards	25%	25%	25%	25%	44
Connecting program to Environmental Literacy Scope & Sequence	13%	18%	42%	27%	45

Seventy to ninety percent of participants planning to participate in field days (n=45) reported using skills learned at the workshop to a slight, moderate or great extent. Workshop focus areas—developing and using a theme, understanding audiences, and developing field day activities—were all highly used. One participant explained “Using one overall theme has made our presentations better - less scattered, more concentrated, and a better experience for the attendees.” Another noted “As event organizers, we have been working thru each session's objective & pre/post test questions (provided by presenters) to determine the environmental & science literacy benchmarks & to send to teachers with their event schedules.”

Participants reported using workshop resources less frequently. Fifty to seventy-seven percent of participants planning to

Participants were also asked to list challenges encountered in using resources. Time constraints and information overload were both issues. In the words of one participant “reminding myself to USE the resources!” is a challenge. Others noted the challenge of getting others to buy into changing their field days. A participant summarized her/his assessment of the workshop “knowing this info makes everything harder, but I feel better about the quality of product/field day.”

Ninety-five percent of survey respondents who have or plan to participate in a field day (n=55) agreed to a slight (47%), moderate (38%) or great (9%) extent that the workshop raised the quality of their education programs. One participant summarized “I know where to start and how to improve current programs.” Another explained “It has given me insight as to what

our field days can be like.” Sixty to sixty-five percent of these participants (n=56) agreed to a moderate or great extent that they are more determined to participate in field day programs as organizers (64%), presenters (65%) or volunteers (58%) as a result of the workshop.

To what extent have you used the following resources from the Raise the Impact of Your Field Days workshops to organize or present at field days?

- a. Best Practices for Field Days results in collaboration, more economical, efficient & effective field day programs.
- b. Field days become an “interest pipeline” for youth to explore careers in natural resources, science & technology.
- c. Increased citizen environmental literacy results in abilities to critically analyze individual behavior, natural resource management & policy.

Workshop resource	Extent to which participants have used resources				Response Total
	Great	Moderate	Slight	Not at All	
Best Practices for Field Days Program Planning Guidebook	9%	20%	48%	23%	44
Best Practices for Field Days Program Planning Worksheets CD-rom	0%	14%	40%	48%	42
Academic Standards	18%	16%	32%	34%	44
Environmental Literacy Scope & Sequence	14%	14%	37%	35%	43
Collaboration with someone you met at the workshop	9%	11%	32%	48%	44
Other resources	10%	22%	46%	22%	41

Lessons learned:

In the future, however, participants suggested BPDFD workshops follow the guidebook clearly, employ real-world examples and hands-on work, enlist more school teachers to participate, allow more time for collegial networking and discussion. Participants report interest in workshops that focus on marketing field days, understanding audiences, educating adults through field days, and finding/training field day presenters. They would find it useful to receive lists of contacts for potential field day presenters, an e-newsletter focused on field day research/practice, assessments of how field day programs follow the best practices, and customized plans for their field day programs.

Summary and Impact

The BPDFD program seeks to impact MN natural resources and citizens by:

- d. Minnesotans enact natural resource and environmental protection & enhancement through programs that reach young people.

While these evaluation data cannot measure impacts on event economies, participant literacy or interest in natural resources they do suggest the BPDFD workshops achieved some measure of the following program outcomes:

- More field day programs follow the Best Practices guidelines as measured from baseline data (Peters & Carlson collected 1999; ESE observations 2002).
- Environmental science educators are trained to offer quality field days that follow the Best Practices framework.
- Environmental Science Educators will be able to demonstrate how their efforts link to formal education standards, the Environmental Literacy

Scope and Sequence, and credible research.

- There will be more connectivity and collaboration among field days, other like partners and programs.

The majority of workshop participants have or plan to participate in a field day program, serving an estimated 30,000+ PK-12 students and adults. While ESE cannot tell which of these are new or repeat programs, it is promising that a slight majority of participants suggested they are more inclined to become involved in field days after attending the workshop. Moreover, the participants are using BPFDF skills and resources to some extent. Participant comments evidence new collaborations, efficiencies in focusing information and addressing standards, and efforts to better understand and reach underserved audiences. Research suggests that all of these changes will improve the educational success of their events.

The difference between participant-anticipated and actual use of workshop knowledge, skills and resources is expected. However it is notable that ninety-five percent of survey respondents still agreed after 3-8 months that the workshop raised the quality of their education programs to some extent.

Recognizing that impacts cannot be achieved by one workshop, results of the evaluation also provide valuable direction for program development and improvements—focus for future workshops, e-newsletters and assessment tools. ESE faculty have already used this testimony in support of two grant proposals. We also have cause to expect that participants will continue using the skills, knowledge and resources provided in the workshop to improve their own events. In the words of one survey respondent “I think it has made us rethink how we present to the youth and what we present is very important. We still have work to do here so that is why I rated

this moderate extent. I would hope that would be "great extent" next time!”

Best Practices for Field Days

A Program Planning Guidebook for Organizers, Presenters, Teachers and Volunteers.

