

**MAIN BODY OF REPORT (No Appendices)
Environmental Education and Training Partnership
EETAP**

**YEAR 5
10/1/04-11/30/05
EVALUATIONS OF ACTIVITY OUTCOMES
SUMMARY OF ACHIEVEMENTS**

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EXECUTIVE SUMMARY

The Year 5 evaluations conducted by EETAP provide important insight into achieved outcomes and support for EETAP's effectiveness.

Similar to last year, Dr. Michaela Zint assisted Partners and States with developing meaningful and measurable outcomes with ambitious targets and with improving evaluation plans, instruments, and designs. Dr. Zint also compiled this report to summarize findings from the evaluations completed by the Partners and States.

As a result of EETAP's Year 5 approach to evaluation:

- All partners and states identified meaningful and ambitious outcomes for their activities.
- All prepared an evaluation plan to assess the extent to which they achieved at least one of their outcomes (i.e., information on additional outcomes that activities may be achieving but for which such evidence is not available is therefore not provided here): **92% implemented their plans, resulting in 25 evaluations with evidence of outcomes achieved by EETAP activities**. This represents an increase from last year when 83% of the implemented plans resulted in 9 evaluations with evidence of outcomes achieved by EETAP activities.
- The methods of evaluation improved compared to last year, with more sophisticated sampling, questionnaire design, analysis, and reporting.
- 86% of Partners and States identified ways that they plan to improve, or improved activities based on their evaluations.
- Standardized questions were developed to evaluate professional development activities – specifically for measuring outcomes, satisfaction levels, participant background, and demographics.

Examples of outcomes achieved by EETAP activities include perceived and actual gains in knowledge and skills, strengthened attitudes as well as increases in intention to act and reported behavior changes:

- **Better understanding of how to improve EE efforts:** Participants reported gains in awareness of their strengths and weaknesses as environmental educators, in their sensitivity to diversity, and significantly increased their knowledge of how to evaluate EE programs.
- **Increased skills in improving EE efforts:** Participants indicated that they were more skilled in creating and assessing the quality of EE resources and in helping to lead their states' EE capacity building efforts.

- ***Strengthened attitudes toward EE:*** Participants felt better prepared to provide quality EE instruction. For example, 86% of educators who participated in a curriculum design workshop reported that using what they learned made them better (EE) instructors. Recipients who read publications by EETAP became more confident that EE can benefit student learning.

- ***Greater intentions to improve EE efforts and to share lessons learned:*** After a North American Association for Environmental Education pre-conference workshop, 95% of participants suggested that they obtained a specific idea that they planned to implement, and believed will build the capacity of their local affiliate to meet its EE community's needs. After a *National Project for Excellence in Environmental Education* workshop, participants explained how they planned to use and share what they learned:
 - *I can't wait to share these [resources] with people from my state! I plan to use them and to encourage others to do the same.*

- ***Behavior changes and resulting impacts:*** Following a *Tools* train-the-trainer workshop, 99% of participants gave examples of how they changed their own EE efforts. Participants in other professional development programs reported increased use of EE resources like the *Guidelines for Excellence* and Project Learning Tree curriculum materials. Lastly, 84% of EE-Link website users who responded to a survey said the information they gained from the site helped them create a more effective EE program.

- ***Sharing with others:*** Within 18 months after participating in a *Tools* train-the-trainer workshop, 75% of participants conducted a workshop, reaching 438 individuals. Partners in a teacher professional development program identified tangible ways in which their communities ultimately benefited. Lastly, individuals from non-EETAP states are learning and applying lessons from EETAP states:
 - *I would say that a lot of what many of the EETAP states have been doing is applicable to us. So in our state, for example, we have taken the initiative to contact and interact frequently with the states that are developing certification programs.*

In conclusion, the 2005 evaluations conducted by EETAP Partners and States provide evidence that the program is achieving annual and long-term performance goals. The U.S. Environmental Protection Agency's Office of Environmental Education can use this information in completing its next Program Assessment Rating Tool.

Continuing to improve evaluation methods through the adoption of consistent measures to assess participants' outcomes, satisfaction, and background can further enhance EETAP's value as a model for how to evaluate professional development programs. Greater standardization will facilitate combining future results across programmatic activities. This will provide more powerful documentation of EETAP's impacts and offer more insight into how activities can be improved.

INTRODUCTION

The Environmental Education and Training Partnership (EETAP) is:
a consortium of ten members including universities, non-profit organizations, and professional education associations working to identify and implement essential educator training services for the delivery of quality professional environmental education. EETAP is a national project funded by the United States Environmental Protection Agency's Office of Environmental Education under Section 5 of the National Environmental Education Act of 1990¹ (www.eetap.org).

EETAP seeks to achieve its mission and goals through 15 programmatic activities and one administrative activity. In addition, one of the programmatic activities, The EETAP States Program, supports capacity building efforts in 8 states. An EETAP partner or state team directs each of these 24 activities (Appendix 1).

Starting in Year 4 and continued in Year 5, EETAP began asking its Partners and States to scientifically evaluate one of the outcomes for each of its activities (i.e., information on additional outcomes that activities may be achieving but for which such evidence is not available is therefore not provided here). The goals for the evaluations were to gain insight into how to improve activities and to yield evidence of achieved outcomes.

Research-based evidence on the achievement of outcomes provides strong support for EETAP's effectiveness. This information also provides the type of evidence the U.S. Environmental Protection Agency's Office of Environmental Education (OEE) can use in completing its annual Program Assessment Rating Tool (PART)² for the Office of Management and Budget (OMB).³

I. METHODS

To meet its evaluation goals, EETAP asked Dr. Zint to:

- Review 24 activity narratives and scopes of work for Year 5 to help ensure that each had meaningful and measurable outcomes⁴ with ambitious⁵ targets, that an

¹ A copy of the Act is available at www.epa.gov/enviroed/whatis.html

² For more information about PART and how it is being used by OMB see www.whitehouse.gov/omb/part/

³ All EETAP Year 5 evaluations summarized in this report were based on scientific approaches but the quality of the evaluation methods varied. Dr.Zint's goal for EETAP Year 4 and 5, and continuing into the future is to enable the adoption of increasingly sophisticated evaluation methods, striving to meet OMB's challenging standards within the context of EETAP's constraints. As described later in this report, Year 5 evaluation methods improved relative to Year 4. For example, whereas none of the evaluations were based on a quasi-experimental design (OMB's minimum design standard) during Year 4, one used it during Year 5 (*Activity 6*).

⁴ A description of characteristics of quality performance measures is available at www.whitehouse.gov/omb/part/challenges_strategies.html

⁵ "Ambitious" targets are "set at a level that promotes continuous improvement given program circumstances" (www.whitehouse.gov/omb/part/fy2006/2006_guidance_final.pdf, p.10)

appropriate outcome was selected for evaluation, and that the evaluation plan would provide useful and reliable information,

- Assist Partners and States with implementing their evaluations (if requested),
- Prepare this report summarizing results from the subsequently completed evaluations, and
- Identify “lessons learned” about measurement from EETAP Year 4 & 5 evaluations by creating a list of “best” measures for assessing participants’ background/demographics, satisfaction, and outcomes (i.e., questions and response options).

Dr. Zint completed all of the above tasks including assisting 14 activities with their evaluation instruments and design based on their request (Activities 1, 2, 3, 5, 7, 12, 13, 14, AZ, CA, IL, MO, OH, UT).

II. RESULTS

This section reviews the accomplishments of EETAP’s Year 5 evaluation efforts.⁶ It is divided into the following sections:

- Improved outputs/outcomes & evaluation plans
- Increased number of completed evaluations
- Improved evaluation methods
- Evidence of more achieved outcomes
- Improvements to future activities
- Progress toward an evaluation system
- Information OEE can use for PART

IMPROVED OUTPUTS/OUTCOMES & EVALUATION PLANS

In Year 5 all EETAP partners and states identified meaningful and measurable outcomes with ambitious targets for their 24 activities. All EETAP partners and states also prepared an evaluation plan to scientifically determine the extent to which they achieved at least one of their outcomes.⁷

⁶ The content of this report summarizes the results from the science-based evaluations the activity leaders were asked to complete for one of their outcomes. Information on additional outcomes that activities may be achieving but for which such evidence is not available is therefore not provided here.

⁷ Although most activities are working to achieve multiple outcomes, activity leaders were asked to select one meaningful outcome for evaluation. Administration, partners, and this consultant determined that selecting one outcome for evaluation within each activity was manageable considering the resources available to the project.

INCREASED NUMBER OF COMPLETED EVALUATIONS

The majority of partners and states completed an evaluation⁸ (22 or 92%), representing an increase from last year (20 or 83%). In addition, several (5 or 21%) chose to conduct more than one evaluation, resulting in a total of 27 evaluations.

The completed evaluations assessed the benefits of:

- 16 professional development activities
- 3 websites
- 2 print resources
- 2 information dissemination efforts
- 2 partnerships
- 1 involvement in product development

In addition to evaluating one of its outcomes, one activity also conducted and reported results from a needs assessment (*Activity 13*).

Appendix 1 provides information about each of the 27 completed evaluations.

IMPROVED EVALUATION METHODS

Methods used by Year 5 evaluations improved relative to last year:⁹

Improvements in Evaluation Design:

- One evaluation used a quasi-experimental design (i.e., pre/post-test of treatment and comparison groups) (*Activity 6*) and two used the retrospective pre-test approach to provide evidence of changes in outcomes (*Activities 4 & 14*).
- Three evaluations used the same measures during Year 4 and Year 5, providing opportunities to assess changes in responses over time¹⁰ (*Activities 6, 13*)
- Four evaluations conducted post-tests and followed up with participants several months later, primarily to learn to what extent participants' followed through on their behavioral intentions (*Activities 11, 12, 14, CA*).

Improvements in Sampling Methods:

- In almost all instances, samples consisted of a census of participants or a simple random sample of participants/recipients, allowing evaluators to generalize results to these populations.
- One evaluation had a large number of respondents (1,385 K-12 students in classrooms, WA). The remaining evaluations that had individuals complete

⁸ Slightly more than half the activities' evaluations were completed with the help of outside consultants.

⁹ Without quality methods there can be no quality results, which is why there is such an extensive focus on methods here.

¹⁰ Respondents to these measures were not the same. Activity 6 used similar measures to evaluate the same workshop over time, involving different participants. Activity 13 used similar measures to evaluate users' perceptions of EE-Link in Year 4 and Year 5. Matching responses as part of the latter was not possible because past measures have not been coded and because of how responses were requested.

questionnaires ranged from having 9 to 150 ($\bar{x}^{11}=56$) respondents with response rates ranging 9 to 100% ($\bar{x}=50\%$). The evaluations that collected data through individual or group interviews involved between 3 and 24 ($\bar{x}=11$) participants with response rates ranging from 54 to 100% ($\bar{x}=88\%$).¹²

Improvements in Questionnaire Design:

- Most evaluations collected both quantitative and qualitative data on outcomes.
- Some evaluations collected background/demographics for individual participants in ways that enable comparisons in outcomes based on these characteristics (*Activities 8, 13, AZ*).
- One evaluation collected data on actual (vs. reported) changes by using multiple-choice questions (*Activity 6*).
- Two evaluations triangulated data, one by collecting data on outcomes through a mail questionnaire and telephone interviews (*AZ*), the other through a post-test questionnaire and workshop observations (*CA*).

Improvements in Analysis/Reporting:

- Almost all evaluations provided sufficient quantitative data (i.e., frequencies and/or means) to support their observations and conclusions.
- One evaluation provided results from statistical significance tests to support claims of changes in outcomes (*Activity 6*).
- Almost all evaluations provided sufficient qualitative data (i.e., select quotes in support of identified themes).
- Almost all followed EETAP's reporting guidelines (including providing the original instruments with frequencies and mean responses), thus facilitating Dr. Zint's review and her ability to incorporate more information in support of achieved outcomes.

EVIDENCE OF MORE ACHIEVED OUTCOMES

Compared to Year 4, Year 5 evaluations generated more evidence that EETAP activities achieved outcomes, including that activities achieved a greater number of meaningful outcomes:

- 25 of the 26 completed evaluations that sought to assess outcomes were able to generate evidence that activities achieved outcomes (96%), representing an increase from last year (70%).
- Many evaluations supported that activities achieved more than one type of outcome ($\bar{x}=2.72$, range 1-5).
- Many evaluations provided evidence that activities achieved meaningful outcomes; i.e., intention to act (40%) and reported behavior changes (56%). One

¹¹ = mean

¹² Response rates could not be calculated in 10 instances because the number of individuals who received the request to respond/participate was not provided. However, in six of these cases individuals were asked to complete questionnaires at the end of a professional development and in four of these cases individuals were interviewed, suggesting that response rates were likely to have been high.

- activity also provided evidence that its participants gained in actual (vs. reported) knowledge (*Activity 6*).
- Many evaluations provided evidence supporting that the activities' participants shared what they learned with others and about what impact this sharing may have had (8 or 32%, *Activities 1, 2, 3, 4, 8, 14, Admin, IL*). Several of these activities' evaluations (4 or 16%, *Activities 2, 11, 14, IL*) also specifically provided evidence that a relatively large number of their participants subsequently conducted their own professional development, reaching many additional individuals.
 - Many evaluations' results indicated that activities either achieved or exceeded their targets (9 or 36%). Some came close to achieving their targets (6 or 24%), and the remainder achieved them to some extent (10 or 40%).

Examples of outcomes achieved by EETAP activities include perceived and actual gains in knowledge and skills, strengthened attitudes as well as increases in intention to act, and reported behavior changes:

- ***Better understanding of how to improve EE efforts:*** Participants reported gains in awareness of their strengths and weaknesses as environmental educators, in their sensitivity to diversity, and significantly increased their knowledge of how to evaluate EE programs.
- ***Increased skills in improving EE efforts:*** Participants indicated that they were more skilled in creating and assessing the quality of EE resources and in helping to lead their states' EE capacity efforts.
- ***Strengthened attitudes toward EE:*** Participants felt better prepared to provide quality EE instruction. For example, 86% of educators who participated in a curriculum design workshop reported that using what they learned made them better (EE) instructors. Recipients who read publications by EETAP became more confident that EE can benefit student learning.
- ***Greater intentions to improve EE efforts and to share lessons learned:*** After a North American Association for Environmental Education pre-conference workshop, 95% of participants suggested that they obtained a specific idea that they planned to implement, and believed will build the capacity of their local affiliate to meet its EE community's needs. After a *National Project for Excellence in Environmental Education* workshop, participants explained how they planned to use and share what they learned:
 - *I can't wait to share these [resources] with people from my state! I plan to use them and to encourage others to do the same.*
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Learning Tree curriculum materials. Lastly, 84% of EE-Link web site users who responded to a survey said the information they gained from the site helped them create a more effective EE program.

- **Sharing with others:** Within 18 months after participating in a *Tools* train-the-trainer workshop, 75% of participants conducted a workshop, reaching 438 individuals. Partners in a teacher professional development program identified tangible ways in which their communities ultimately benefited. Lastly, individuals from non-EETAP states are learning and applying lessons from EETAP states:

- *I would say that a lot of what many of the EETAP states have been doing is applicable to us. So in our state, for example, we have taken the initiative to contact and interact frequently with the states that are developing certification programs.*

Note that **Tables 1-5** (pp. **Error! Bookmark not defined.-Error! Bookmark not defined.**) provide more details on the outcomes achieved by the different activities, as summarized above. The examples for these tables were selected:

- Based on the quality of their evaluations' methods,
- To illustrate the different types of outcomes achieved by EETAP's activities, and
- To provide results on at least one outcome achieved by the activities as suggested by each of the relevant 25 evaluations.

Details on all of the outcomes achieved by each of the activities, based on evaluation results, can be found in Appendix 1. This Appendix also identifies the methods used to generate these results including, for example, the number of respondents and response rates.

IMPROVEMENTS TO FUTURE ACTIVITIES

The majority of partners and states identified ways they improved, or plan to improve activities based on their evaluations (n=19, 86%), representing an increase from last year (n=12, 60%). Types of improvements include:

- Changes to future evaluations (including questions, processes)
(n=12, *Activities 3, 4, 6, 7, 11, Admin, AZ, CA, IL, MO, OK, UT, WA*)
- Changes to processes of service/resource
(n=10, *Activities 3, 8, 11-14, CA, IL, MO, OK*)
- Use of particular methods to attain particular outcomes
(n=4, *Activities 10, 12, 15, AZ*)
- Changes in recruitment of participants/marketing
(n=4, *Activities 4, 13, 14, MO*)

- Changes to content of service/resource
(n=3, *Activities 11, 15, IL*)
- New product development
(n=3, *Activities 13, 14, Admin*)
- Adjustments to activity's future outcome(s)
(n=2, *Activities CA, OK*)

More detailed information about improvements planned by each activity can be found in Appendix 1.

PROGRESS TOWARD A STANDARDIZED EVALUATION SYSTEM

This year's goal for moving toward an evaluation system was to develop a series of standardized measures suitable for a post-test administered at the end of professional development activities.

Standardization of measures is being pursued to increase the quantity and quality of evidence available on outcomes achieved by EETAP overall. If the same questions are asked across activities, their results can be combined to provide powerful documentation of the impacts of EETAP. Use of the same questions also allows comparison across activities (e.g., to gain insight into the value of different approaches) and comparisons over time (i.e., to provide insight into improvements).

The professional development aspect was selected first because almost all EETAP activities provide this service.

Standardized items were developed to measure outcomes, satisfaction levels (with outcomes and different aspects of the professional development) as well as participant background, educational role, and demographics.

Collecting information about individuals' background and demographics is important to verify that intended audiences are participating in the professional development and to allow for how differences in background/demographics influence outcomes. Identifying the educational role will also allow the tracking of how many learners are affected by EETAP's participants.

Collecting information about individuals' satisfaction is useful for identifying potential program improvement needs. Differences in satisfaction levels tend to help explain levels of achieved outcomes.

Information on outcomes provides evidence of the value of EETAP programs i.e., how individuals are benefiting. Appendix 2 provides an overview of the outcomes for which measures were developed, i.e., knowledge, skill, attitudes (3 types), intention to act, behavior, and effects on learners/others based on participants' actions. In addition, eight

contexts were identified (i.e., learning, diversity, high quality EE resources, teaching, benefits of EE, environmental content, assessment, and the profession) for which there could be increases in each of these outcomes. These eight contexts were selected based on the outcomes that activities evaluated during Year 4 and 5 and to encompass outcomes likely to be sought in the future.

To develop the measures for all of the desired constructs, EETAP Year 4 and 5 evaluation instruments were reviewed and improved upon based on research and experiences by Dr. Zint, two additional consultants (Drs. Ron Meyers and Carol Moreng) and two University of Michigan graduate students (Jason Duvall and Kim Wolske).

Appendix 3 provides a list of all the items that were developed for Partners to choose from.

Note that while the measures were developed for the context of evaluating professional development activities, many should also be suitable for evaluating other EETAP services and products.

INFORMATION OEE CAN USE FOR PART

As a result of EETAP's approach to evaluation, information has been generated that OEE should be able to use in completing its next PART, specifically 3.CO3, 4.1, 4.2, 4.5.¹³ This information should help OEE demonstrate the ability of its grant programs to measure and provide evidence for achieving "outcome-based public benefits."¹⁴

PART 3.CO3. Does the program collect grantee performance data on an annual basis and make it available to the public in a transparent and meaningful manner?

Since OEE's request in 2004, EETAP Partners and States have refined their 24 activities' annual and long-term performance measures into meaningful, measurable outcomes with ambitious targets. Partners and States have also committed to collecting science-based data to monitor performance on at least one meaningful outcome for each of their 24 activities annually. Results from these evaluations formed the basis for an independent consultant's report in 2004 and 2005. The latest report offers recommendations for developing a database that could be made available through a web site and searched by the public for information about EETAP's performance results. This database may also ultimately offer a means for publicly sharing performance results from other OEE supported grant programs.

PART 4.1. Has the program demonstrated adequate progress in achieving its long-term performance goals?

As a result of the 2004 and 2005 independent evaluations of EETAP's performance, there is evidence that the program is achieving its long-term performance goals and thus, is

¹³ The Guide for completing the 2006 PART can be found at www.whitehouse.gov/omb/part/fy2006/2006_guidance_final.pdf

¹⁴ See www.whitehouse.gov/omb/expectmore/summary.10001136.2005.html

contributing to the achievement of OEE's long-term EE performance goals (see latest draft strategic plan). For example, there is evidence that participants have used what they learned or the resources they obtained through EETAP to improve their environmental education efforts (i.e., they have changed their behaviors). Importantly, program participants have also indicated that as a result of these improved efforts, their learners and other professionals have also benefited; i.e., providing evidence for extensive reach (Table 5 in the 2005 report highlight select examples, more can be found in its Appendix 1).

PART 4.2. Does the program (including program partners) achieve its annual performance goals?

As a result of the independent evaluation of EETAP's performance, in turn based on the evaluations conducted by participating Partners and States, there is evidence that EETAP's activities are achieving their annual performance goals. These include improvements in EETAP participants' knowledge, skills, strengthened attitudes, and intentions to act (Tables 1-5 in the 2005 report highlight select examples, more can be found in its Appendix 1).

PART 4.5 Do independent evaluations of sufficient scope and quality indicate that the program is effective and achieving results?

EETAP has conducted independent project evaluations since 1995. Through 2003 the evaluations focused on the overall project or specific themes within the project such as capacity building or communication. In 2004, an evaluation program was put in place to determine achievement of outcomes at the activity level. As part of this effort, partners were asked to strengthen outputs, outcomes, and write evaluation plans for each activity. Technical assistance was provided to partners through an independent consultant. The same independent consultant also compiled a report based on the activities' evaluations in 2004 and 2005, respectively. The two independent evaluations meet PART's quality, scope, independence, and frequency criteria. Regarding quality, the independent evaluations were based on evaluations conducted by each of EETAP's 24 activities. Independent consultants in turn, mostly also completed the latter. In addition, all of these evaluations were conducted under the guidance of EETAP's independent evaluator, focused on assessing outcomes, and used the most rigorous methods possible given available resources and capacity (details on the methods used by the evaluations are included in the reports). Regarding scope, because individual evaluations were conducted for each of EETAP's 24 programmatic activities, they provide comprehensive information on the effectiveness of the entire national program. Regarding independence, an unbiased third party, a faculty member from the University of Michigan, produced the above mentioned reports. Regarding frequency, the evaluations have been conducted annually and have thus enabled EETAP to improve its programs on a timely basis.

Lastly, EETAP evaluations have also generated evidence to support that its programs meet unique needs not addressed by other private, local, state or national efforts. For example, the results of two evaluations of EETAP activities supporting state environmental education capacity building confirm that there is a unique need for these efforts and that they are not duplicative:

NEEAP has been invaluable for a number of reasons. Number 1, we were one of the first states, we were in the first round of funding, and we are continuing with all we started with their support years ago. . . it helped us get significant funding, 3 million dollars worth of support for EE. Actually Monday, they will be voting in the state senate to institutionalize the statewide center for permanent funding. That would not have happened without NEEAP, the support and ideas we got. Also, it was a touchstone for me. While I certainly didn't call them every day, when I needed something, they were there. They always responded with what I needed during our funding and later. So, while I understand NEEAP is closing, I hope whatever the new proposal is, that it will include state capacity building. Whatever proposal comes through and gets accepted by the EPA has to provide the services that they [NEEAP] provided – they cannot be lost.

Respondent to Independent Evaluation, EETAP Activity 1

The Affiliate Pre-Conference Workshop is very important to the maintenance of local EE organizations. Relationship building, problem solving, and opportunities to develop ideas are products commonly received from attendance at the workshop. Supportive networks of people are built at the conference and utilized throughout the year. There does not appear to be another activity that duplicates these results.

Independent Evaluation Consultant, EETAP Activity 3

III. SUMMARY

Overall, results support that EETAP's Year 5 evaluation efforts have resulted in a number of achievements including:

- Improved outputs/outcomes & evaluation plans
- Increased number of completed evaluations
- Improved evaluation methods
- Evidence of more achieved outcomes
- Improvements to future activities
- Progress toward a standardized evaluation system
- Information OEE can use for PART

Importantly, the quantity and quality of all of the above increased relative to Year 4. Thus, EETAP Year 5 built and improved upon, its Year 4 evaluation experiences.

In light of all of the above and the field's current status, EETAP provides a model approach for evaluating environmental education efforts, particularly for evaluating the outcomes of professional development programs. To the extent that EETAP can implement the following recommendations, its value as a model can be even further enhanced.

IV. RECOMMENDATIONS

The following recommendations offer suggestions for how insights from EETAP Year 5 evaluation results and experiences can be used to advance future evaluation efforts, including ways that will address OEE's annual PART review needs

Discuss the following recommendations with future national training program partners and revise/implement based on their input:

1. Continue to clarify individual activities' and EETAP's overall outcomes

Adapt an EETAP logic model that incorporates the outcomes refined in this report (Appendix 2). These outcomes are based on last year's (2004) report as well as discussions during a recent EETAP meeting (11/2005) and should encompass the outcomes identified by OEE as part of its RFP for future national training programs. This logic model can be used to guide future evaluations and as a communication tool. Dr. Zint can draft a revised model for the partners to consider.

Develop logic models for each of the individual activities to show links between individual activities-outputs-outcomes and their respective link to EETAP's overall logic model. Provide these logic models as an alternative to the lists of activities, outputs, and outcomes in the work plans. Dr. Zint can assist this process by developing draft logic models of each of the activities for Partners to consider.

2. Continue to facilitate timely completion of evaluation reports

Depending on circumstances, hire consultants to assist with all or select aspects of the individual activities' evaluations. Greater use of consultants in Year 5 compared to Year 4 appears to have resulted in quicker completion of reports. Assuming partners are satisfied with the consultants' past work (Dr. Zint can provide input if desired), consider hiring consultants to evaluate the same activities they evaluated in the past. These consultants will be more familiar with the activities and thus should be able to produce higher quality evaluations.

Submit evaluation reports to Dr. Zint as soon as they are completed. This will facilitate earlier completion of this report.

3. Continue to improve the evaluations' research methods

In planning future evaluations, review checklist of "Things to Consider" developed by Dr. Zint for how to improve the design, sampling, data collection, and analysis/reporting. This checklist incorporates all of the lessons learned from EETAP's Year 4 & 5 evaluations. Dr. Zint has incorporated this checklist into a proposed, revised set of guidelines for preparing future evaluation plans (Appendix 4).

4. Continue to generate more research-based evidence of outcomes

Work toward increasing the number of key outcomes that are evaluated and continue to evaluate these outcomes on an on-going basis to permit assessment of improvements over time. In other words, continue to work toward a system that includes on-going evaluation of all activities.

Continue to measure meaningful *outcomes* including intention to act and/or behavior change as well as “actual” versus perceived outcomes.

Continue to focus on measuring the extent to which *participants/recipients share what they have learned with others* to provide evidence of the extensive reach of EETAP’s activities.

Continue to specify ambitious *targets* for outcomes and ensure that measures are included to verify that these targets have been met.

Measure participants’ *background/demographics* to verify that targeted audiences are being reached and to assess the influences of these characteristics on levels of achieved outcomes.

Measure satisfaction levels, which is especially useful for new activities and may contribute to explaining differences in levels of achieved outcomes.

Conduct new activities or improve current activities based on *needs assessments*.

5. Continue to improve activities based on *lessons learned* from the evaluations

Implement changes based on the individual evaluations’ results, as proposed by Partners (see p. 14 for summary and Appendix 1 for details)

Explore the extent to which the changes implemented have the desired effects by re-evaluating relevant aspects.

Consider which insights gained from the individual evaluations apply to other EETAP activities, and how these can be implemented. Regarding:

Professional development

- Determine which individuals may be interested in sharing what they learned through EETAP with others through their own professional development activities and provide them with needed support. Participants in several activities indicated such an interest this past year even though these were not train-the-trainer activities (*Activities 11, 14*).
- Ask individuals intending to conduct their own workshops or who are intending to share what they learned from EETAP in other ways, to identify who they plan to reach, how many, and how. If it is through professional development, support them in conducting and reporting their own evaluations

(potential measures/instrument are provided as part of Appendix 4). Any evidence suggesting that information has been shared with others by participants/recipients provides useful evidence of the important indirect benefits EETAP is having (*Activities 2, 4, 8, 14, IL*).

- To the extent appropriate, recruit leaders to participate in EETAP activities. Such leaders are more likely to share what they have learned with others. To identify relevant leaders and those most likely to share what they have learned, individuals can be asked to provide background information as part of a registration form and selected for participation on this bases (see Appendix 4 for some potentially relevant background questions to ask) (*Activities 1, 2*).
- Continue to explore and share experiences for how to recruit individuals who are not “part of the choir,” i.e., ones with an interest but who are lacking the necessary knowledge, skills, or resources (*Activities 2, 4*).
- Involve teams of participants rather than individuals in capacity building (ideally with one member paid to increase capacity) or other professional development activities (*Activities 1, 2, 11*).
- Seek and foster partnerships with local community organizations (possibly also businesses) in offering professional development opportunities, especially when these are targeting K-12 teachers. Local partnerships have been essential to the successful implementation and sustainability of local EE efforts and have spurred additional benefits for local communities (*Activities 1, 2, 10*).

Promoting the use of resources

- Work with states pursuing certification to encourage them to expose candidates to specific content or resources. Activity 7, for example indicated that candidates’ awareness of the Guidelines for Excellence was raised as a result and this was perceived to have had important benefits for their respective program participants/audiences.
- Facilitate opportunities for individuals (as part of professional development) to use the resources, which they are expected to adopt. AZ’s evaluation, for example, suggested that individuals’ opinion of the Guidelines increased as a result of using them.
- Provide information on how to use resources (e.g., fact sheet with examples). This was recommended by individuals who participated in a Guidelines workshop (Activity 11)
- Provide “pocket summaries” when resources offer extensive information. Individuals recommended this within the context of the Guidelines (AZ).

- Work with administrators whose buy-in is considered important to the adoption of resources, practices, etc. This was recommended by individuals in the context of completing self-reviews (Activity 12) and promoting greater use of the Guidelines (AZ).

Building State Capacity for EE

- Lessons learned from evaluating capacity building efforts suggest that EETAP should focus on disseminating information through one-on-one, small-group *interactions* (e.g., pre-conference workshop, leadership clinics) rather than other ways such as newsletters or web-sites (*Activity 1*).
- Consider what additional roles EETAP can/should play in state capacity building. This is recommended in light of the important role that NEEAP has played in the past. Consider the following comment by a participant in *Activity 1*'s evaluation:

NEEAP has been invaluable for a number of reasons. Number 1, we were one of the first states, we were in the first round of funding, and we are continuing with all we started with their support years ago. . . it helped us get significant funding, 3 million dollars worth of support for EE. Actually Monday, they will be voting in the state senate to institutionalize the statewide center for permanent funding. That would not have happened without NEEAP, the support and ideas we got. Also, it was a touchstone for me. While I certainly didn't call them every day, when I needed something, they were there. They always responded with what I needed during our funding and later. So, while I understand NEEAP is closing, I hope whatever the new proposal is, that it will include state capacity building. Whatever proposal comes through and gets accepted by the EPA has to provide the services that they [NEEAP] provided – they cannot be lost.

Meeting Teacher Needs

- If interested in learning more about teachers needs, explore the ideas offered by teachers who participated in a needs assessment related to EE-Link (*Activity 13*).

Evaluation

- Consult the checklist of “things to consider” (Appendix 4) which Dr. Zint compiled to reflect the methods experiences of EETAP's Year 4 and 5 evaluations.
- If seeking to evaluate master or strategic planning efforts, refer to suggestions offered by *OK* for how to best measure these (e.g., focus on process, assess outcomes such as % of individuals who participate on on-going basis, and % who agree to sign).
- If seeking to evaluate web-sites including web-based databases, consult instruments and suggestions for processes offered as part of the evaluations by *Activities 13, IL, and MO*.

Raising “Brand” Awareness

- Raise awareness of EETAP’s support of activities (identified as an issue by *Activities 1 & 3*), particularly when interacting with leaders who can help “spread the word.” Efforts can include statements such as “Supported by the Environmental Education and Training Partnership (EETAP) under a grant from the U.S. Environmental Protection Agency” in communications with participants/recipients. Other efforts could include an article introducing EETAP through the NAAEE Communicator, introducing EETAP to state EE leaders through the pre-conference workshop [focusing on the state database (Activity 9), certification (Activity 8), or increasing diversity (Activity 10) which are of particular interest to states (Activity 1)], and an article on EETAP’s evaluation efforts by Dr. Zint for the *Journal of Environmental Education*.

6. Continue to build an evaluation system for EETAP

Adapt and adopt logic model for future national training programs.

Adopt proposed menu of post-test measures for evaluating future professional development and if applicable, other services and resources. Select key measure for inclusion in all future evaluations of professional development offerings. This standardization is proposed to generate more and higher quality evidence of EETAP outcomes.

Agree to evaluate all professional development activities. The minimum expectation should be the use of a post-test using the agreed-upon measures

Develop pre/post/retention-test sample instruments for professional development activities based on menu developed for post-test (Dr. Zint).

Develop needs assessment measures for professional development activities that could be incorporated into post- or retention-test (Dr. Zint)

Develop additional measures for other EETAP services/resources or for specific activities based on needs identified by Partners (e.g., for Internet sites, for train-the-trainer workshops, or based on needs of OEE (e.g., measures that generate data on the extent to which EETAP activities meet unique needs) (Dr. Zint).

Obtain EETAP’s permission to make standardized measures/sample instruments available via MEERA, the new “clearinghouse” of EE evaluation resources (Dr. Zint).

*Improve tracking of participants (at minimum names, contact information, ideally some background/demographics) to facilitate later sampling for evaluation purposes. Consultants evaluating *Activities 2, 4* were among those that generated this recommendation. A database could be created for entering and managing this information.*

Identify and test a jointly agreed upon efficiency measure (e.g., percent of participants/recipients expressing satisfaction with service/product based on allocated resources, percent of participants/recipients expressing intention to use what they learned/obtained to improve environmental education efforts based on allocated resources).

7. Continue to improve EETAP's approach to evaluation

Adopt proposed revisions to guidelines for reporting evaluation plans (Appendix 4)

Develop a database that partners can use to access information from past evaluations and evaluation plans (Appendix 5). A similar database is being created by MEERA (funded by OEE). Thus, it should be relatively easy and inexpensive to build on and adapt it to EETAP's needs. The database will facilitate building on and coordinating across evaluations. The current proposal is to restrict access to EETAP Partners; in the future the database could be made accessible to the public or select audiences.

Continue to *learn how Dr. Zint can best assist the partners* with their evaluations. Recently Dr. Zint proposed that an independent evaluator be asked to conduct interviews with partners to explore related questions. This suggestion has been incorporated into the Administration evaluation plan for 2006.

Continue to *learn how Partners and Dr. Zint can best work with evaluation consultants for the individual activities.* Dr. Zint can create a list of expectations for consultants (e.g., reporting changes in focus, use of developed measures, use of reporting guidelines, participation in conference calls). Dr. Zint can also help create a list of suggestions for Partners (e.g., providing evaluation plans, early and on-going involvement, maintaining lists/contact information of participants, discussing results and providing information about changes planned as a result). Dr. Zint is planning on additional conference calls and on sharing this report with consultants (if approved by EETAP) to improve communication.

Continue to *learn how Dr. Zint can improve this report* to increase its value for Partners, OEE, and others. This year, for example, Dr. Zint attempted to shorten the amount of text (largely by using lists). For next year Dr. Zint is considering reporting percentages as part of text to enhance its readability.

V. REFLECTING ON THE EVALUATION

Evaluations are considered a success to the extent that their recommendations are implemented. In another year, it will be possible to do so for this report and thus, to reflect on its success. So far, this evaluation can, at minimum be concluded to have

resulted in the changes that are summarized in the executive summary (pp. i-ii) and the results section of this report (p. 6).

It is now also possible to reflect on last year's evaluation/report, and to conclude that it has been quite successful. It is evident from this year's evaluation that many of the improvements documented in this report can be attributed to last year's experiences and recommendations. In addition, elements of last year's recommendations have been acted upon. For example,

- Partners and States had the opportunity to provide feedback on last year's report and recommendations as well as on other aspects of EETAP's approach to evaluation during Years 4 and 5 (*Year 4 Recommendation 1*).
- Partners and States began to jointly develop a logic model for EETAP (*Year 4 Recommendation 2*).
- Dr. Zint started compiling joint "lessons learned" (see pp. 14-16 and Appendix 4) to begin to develop "best practice" checklists (*Year 4 Recommendation 3*).
- Partners and States shared past evaluation instruments and these were used by Dr. Zint to begin to develop a set of proposed standardized measures (*Year 4 Recommendations 4, 5, 7*).
- Partners had a meeting in November sharing outcomes and evaluation plans, thus enhancing their own evaluation capacity (*Year 4 Recommendation 6*).
- The next national training program was designed from the beginning with evaluation in mind, helping to ensure that evaluation will play an integral part in this program (*Year 4 Recommendation 8*)

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