Workshop Evaluation: Using Social Indicators to Focus Efforts for NPS Projects

Workshops are important tools for presenting information and teaching skills that can help people improve water quality. They vary in length and duration, and may be designed to be single events, components of multiple-day conferences, or parts of long-term training programs. Workshops are presented for many reasons. The organizers may want to disseminate information, teach new skills, attempt to change behavior, or a combination of these things. Likewise, workshops are evaluated for multiple reasons, including meeting grant requirements and understanding whether needs have been met.

Evaluating workshops that are part of NPS management efforts should provide information about changes in attitudes, knowledge, awareness, and behavior of participants. Using social indicators for NPS projects requires clearly defined target audiences and appropriate activities focused on those audiences. Ideally, workshop participants are part of a target audience whose actions affect water quality.

This brief overview provides general steps and points to consider when developing and carrying out a workshop evaluation as part a NPS pollution reduction project. NPS projects can use this document to plan and evaluate workshops that make the most of project resources and move toward meeting water quality goals. References and websites are included for those seeking additional examples and resources.

Develop an Evaluation Plan

Workshop designers should develop a comprehensive strategy for workshop delivery and evaluation. The entire workshop package can be made much more effective by deciding up front what the intended outcomes of the workshop are, and matching content with intent. Evaluation should be part of the process from the very beginning.

Your evaluation plan should reflect what you intend to accomplish. If your purpose is to increase awareness of a new technology among local professionals through a half-day workshop, then a simple end-of-session questionnaire, analyzed then discussed in a brief summary report or staff meeting, may suffice.

For more information-intensive workshops or long- term training initiatives aimed at changing participants' behaviors (regarding nutrient and manure management, for example) the evaluation strategy will be more complex. For these situations, workshop leaders should develop a detailed written evaluation plan that identifies topics, spells out questions and concerns, describes how information will be collected and analyzed, and suggests how findings will be reported. These plans would include end-of-session questionnaires as well as follow-up surveys with participants taking place months or years later.

For more information on developing evaluation plans, see Taylor-Powell, Steele, and Douglah (1996)[1], who have developed a helpful guide that also discusses focusing an evaluation, collecting information, using information, and managing an evaluation.

Define Your Purpose and Select High Priority Questions

Regardless of your strategy, it is important to focus on the purpose of the evaluation and what, specifically, you want to know about your event. For clarity, try to select no more than five or six major points you would really like to track for the evaluation. Limiting your efforts to priority issues will make the evaluation process easier and can prevent you from collecting unnecessary data. This will also help you select the most appropriate research methods for achieving the desired results (Diem, 2002).

As part of a state or federally funded NPS project, it is important to collect data from key target audiences describing their attitudes, knowledge and awareness, and behaviors related to project objectives.

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[1] Available at http://cecommerce.uwex.edu/pdfs/G3658_4.PDF

Collecting Data

For the most part, data to evaluate workshops will come from workshop participants themselves. Data should be collected at the end of the workshop as well as several months or more after the event. Make sure to reserve an appropriate amount of time on the agenda for participants to complete end-of-session questionnaires and remind them of the importance of their responses.

There are two approaches for collecting data at the end of a workshop: 1) end-of-session questionnaires, and 2) pre-workshop/post-workshop evaluation forms. Although the pre-workshop/post-workshop mdoel is used frequently among educators, the approach is time consuming and has been criticized for skewing results (Howard, 1980; Pratt et al., 2000; Taylor-Powell & Renner, 2000). A more effective and time-efficient method is using a single questionnaire administered at the end of the workshop that incorporates a "retrospecive pre-test" (Lamb and Tschillard, 2005; Klatt & Powell, 2005).

Using this preferred approach, participants are asked to rate their knowledge, skill, attitude, or behavior from two perspectives: after the educational event and before the event (see Table 1). Advocates of this approach suggest that workshop participants learn what they know and don't know through the process of completing the workshop, and they provide accurate pre- and post-test estimates using a single end-of-workshop questionnaire.

Program managers need information about whether, and how, participants use information after they leave the workshop. Funders sometimes also require evidence of on-the-job impacts. Follow-up evaluations are conducted after some time has elapsed. Generally, post-workshop questionnaires are sent to participants to learn how much they are using what they learned in the workshop or how they would rate the workshop after some period has elapsed. Depending on the type of participants and their use of the internet, post-workshop surveys can be conducted via mail, e-mail, or a web-based survey. For some groups, phone interviews or onsite face-to-face interviews with participants are preferred options. Your approach will depend on your knowledge of your audience and their communication preferences. Participants could specify their preferred method for a follow-up contact during the workshop event.

Keep in mind that there are no perfect data collection methods and each has its advantages and disadvantages. Surveys are relatively efficient as a data collection technique, yet require time to write and develop. Mailed, phone, and internet options all have their advantages and disadvantages. While they generate a lot of key information, surveys can exclude important information that is better collected with alternative methods, such as interviews or focus groups. For example, although survey respondents might not take the time to disclose a set of obstacles that prevented them from adopting a practice learned at a workshop, this information might emerge during an interview.

When developing a survey for post-workshop follow-up evaluation, multiple factors must be considered. Length, characteristics of questions, reading level, layout, participant willingness to complete the survey, and method of administration all affect response rate, and an acceptable return is critical for making credible inferences and findings. In general, the higher the return rates the better. Low rates of return raise questions about how much the responses really reflect characteristics of the full set of workshop or training participants. Generally, response rates above 60% are necessary to account for nonresponse bias (Dillman 2000). Also, as with all self-reported data, there is a possibility that respondents could over- or under-estimate their knowledge or behaviors, and although surveys generally assure confidentiality, respondents may tend toward more socially acceptable responses.

An excellent review of various data collection method is in the August 2004 newsletter of the Harvard Family Research Project.[2] Six data collection methods are presented and for each advantages and challenges are identified. Taylor-Powell and Steele also review an array of methods using three categories: existing information, people, and pictorial records and observation.[3]

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[2] Available at http://www.gse.harvard.edu/hfrp/content/projects/afterschool/resources/snapshot5.pdf

[3] Available at http://cecommerce.uwex.edu/pdfs/G3658_4.pdf

Table 1.

	NOW, at the end of the workshop				BEFORE the workshop			
Our coalition has a strong vision of success	Strongly Disagree	Disagree	Agree	Strongly Agree	Strongly Disagree	Disagree	Agree	Strongly Agree

Klatt and Taylor-Powell, 2005

How To Ask Questions in a Post-Workshop Survey

Survey questions can be open-ended (fill-in-the-blank), close-ended (check the box) or use relative scales (ranging from never to always, or from agree to disagree, for example). Developing effective surveys that meet your needs requires some expertise. If your staff or immediate colleagues do not have experience developing surveys, consider consulting a specialist within your organization or at a partner organization.

The Regional Social Indicators Project is in the process of developing guidance to assist projects in developing post-workshop assessment questionnaires using the Social Indicators Data Management and Analysis system (SIDMA).

Estimating Evaluation Costs (Evaluation conducted in-house)

Example:

A one-day workshop on nutrient management planning presented to 15 farmers

Strategy:

An end-of-session questionnaire and a follow-up interview after one year

Costs:

- Time for designing questionnaire and post-workshop interview questions/protocol: 12 hours
- Time for summarizing and reporting data from post-workshop questionnaire: 8 hours
- Time for conducting on-farm follow-up interviews on year later: 3 hours per farmer: 45 hours
- Time for summarizing and reporting data from 15 follow-up interviews: 1 hour per farmer x 15 farmers: 15 hours
- Cost of materials: minimal (in-house printing for questionnaires, interview protocols, and reports)

Total Costs:

Approximately 80 hours of staff time plus cost of office materials.

Reporting Your Findings

A traditional written report is not always appropriate or desirable. If evaluation results will only be used internally, a list of relevant data with a brief summary of findings may be sufficient. A detailed memo or PowerPoint presentation at a meeting or teleconference may be another option.

Report writing takes time, and formal reports are not always the most efficient way to showcase your results. The Social Indicators Project will provide tools through SIDMA to assist projects in reporting results of workshops.

Evaluation Costs

There are no standard formulas for estimating the costs of workshop evaluations. Costs depend on multiple factors, including evaluation purpose, number of questions asked, complexity of data collection strategies, and who will be designing the evaluation, creating the questionnaire and analyzing the data and summarizing the results.

In general, costs are:

- Less, if the evaluation is done internally (assuming cost of personnel is not considered) rather than contracting with an external evaluator. However, an external evaluator may save staff time.
- More, for comprehensive and in-depth evaluations.
- Less, for collection of data during workshops and more for any followups.
- More, for measuring impacts than for assessing participants' reactions.

In Conclusion

This brief overview provides general information for program managers and others for making decisions about evaluating workshops. There are numerous references to consult regarding proper question development, delivery options, and level of detail. Costs will depend on the method selected, the depth of information and analysis desired, and staff time required for the evaluation. Consistent with the social component of the NPS Evaluation Framework, workshop evaluation data should be able support changes in attitudes, knowledge & awareness, or behavior among key audiences whose actions affect water quality.

Where to Find More Information:

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Sheehan, K. (2002). Online Research Methodology: Reflections and Speculations. *Journal of Interactive Advertising* 3 (1).

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Lamb, T. and Tschillard, R. (2005). Evaluating learning in professionaldevelopment workshops: Using the retrospective pretest. *Accessed June 6, 2006 at http://www.nsdc.org/library/publications/research/lamb.pdf*

Pratt, C.C., McGuigan, W.M. and Katzev, A.R. (2000). Measuring program outcomes: Using retrospective pretest methodology. American Journal of Evaluation, 21(3) 341-349.

Taylor-Powell, E., Steele, S & Douglah, M. (1996). Planning a Program Evaluation. *Accessed at http://cecommerce.uwex.edu/pdfs/G3658_1.PDF*

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For additional information and contact information, visit: http://www.uwex.edu/ces/regionalwaterquality/Flagships/Indicators.htm